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TO AN ATTENTIVE MIND THE GARDEN  
TURNS PREACHER.

ABERCHOMBIE'S  
PRACTICAL  
GARDENER.



Derby

THOMAS RICHARDSON & SON.





ABERCROMBIE'S  
IMPROVED  
PRACTICAL GARDENER;  
WITH A  
MONTHLY CALENDAR  
FOR  
THE FLOWER GARDEN.

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## INTRODUCTION.

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Man in his earliest age became acquainted with the use of plants. He found them indispensably necessary for the support of animal life, and on that account the study of vegetables may be considered as coeval with the creation. From that time his attention has been directed towards them as furnishing, by means of cultivation, an increased supply of human food, and that in proportion to the increasing wants and desires of the population.

Gardening, as far as respects the culture of plants, must differ in different climates, some of which are favourable for fruits, some for flowers, and others for culinary vegetables, and for the growth of the latter, low moist climates are the most favourable; in this respect England perhaps may be considered to equal, if not surpass, every other country in Europe.

The first object of our attention is the formation of the kitchen garden, and which is a subject embracing a variety of considerations, as the situation, exposure, aspect, extent, shelter, shade, soil, water, form, &c.

The situation of a kitchen garden should be as near the dwelling-house and offices as is consistent with convenience and other arrangements.

It should be on a gentle declivity, towards the south, and either in the rear or on the flank of the house, but never in front, if possible, as independent of its appearance, the necessary traffic with the garden would always be offensive. It more frequently happens that artists are more guided by circumstances, than favoured by choice, but, if possible, low situations and the bottom of valleys, should always be avoided, as in the first instance there is a sourness in the soil that cannot be eradicated, and in the second they are subject to damps and fogs, which are very prejudicial to plants in vernal evenings, by moistening the young tops, and rendering them liable to the injuries of frosty nights, which generally succeed them; neither should the situation be so high as to be exposed to boisterous winds, which would be equally hurtful, but a situation between these two extremes, is the most desirable.

The next consideration is exposure, which should not be surrounded by close woods or plantations, because a foul stagnant air is frequent in such confined situations, which are very prejudicial to plants growing therein, but should be open and free, to admit the sun and air to the plants. The inclination of the ground should be about one foot in thirty.

The aspect is a consideration of great importance in the laying out a garden; it should be about south-east, or it may be a point or two more to the east, when the sun will be upon it soon after rising, and its influence will increase

regularly as the day advances, which has a very beneficial effect in dissolving the hoar frost, that the preceding night may have lodged on the tender tops of plants. On the contrary, when the sun is excluded from the garden till ten or eleven o'clock in the morning, and then darting upon it with all the force derived from considerable elevation, the aspect is bad; the powerful rays of heat at once melt the icy particles, and acting upon the moisture thus created, scald the tender tops of the most delicate plants, which very much injure them. The covering of the hoar frost is otherwise of itself a particular preservative of the vegetable creation from frosty winds.

In respect to the extent of a garden but little can be said, that depending altogether upon the demand of the family. Few gentlemen's gardens in the country contain less than three roods, and from this they increase, according to different circumstances, to ten or twelve acres. The farmer and cottager have generally small portions allotted in the most convenient part or corner of the homestead, in which they frequently grow the most common kitchen garden crops, as potatoes, turnips, carrots, &c. in the field, and the flavour of such vegetables are much superior to those raised in a garden by force of manure. The labourers' gardens vary in respect to size as much, in proportion, as the farmers' or the squires', and are in general equally, and sometimes better managed, at least, in some parts of the country it is the case. But to give some idea

respecting the quantity of ground for a garden, we will say for a family of four persons (exclusive of servants) a rood, and so on in proportion allowing it to be larger, rather than too small.

In order to bring the produce of the soil to the greatest perfection, the garden should be sheltered from the east, north, and west winds, by

“ Hills and rising ground, clothed with the fir trees’ spreading shade; ”

but the shelters should be at such a distance, on all sides, as not to prevent the sun’s rays in the spring, when every one is of the utmost value.

In the next place, and with the exception of situation and exposure, the soil of a garden is obviously of the greatest consequence; this should be a moderately light mellow loam, and if mixed with silvery grit the better; it should not be of a binding nature in summer, nor retentive of an undue quantity of wet in winter, but of such a texture as may be worked at any season of the year. The soil of a garden should be at least eighteen inches deep, but if two feet so much the better, for when the plants are in a state of maturity, if the roots of most kinds are minutely traced, they will be found to penetrate into the earth in search of food to that depth or more, providing the soil be of such a nature as to admit them. The very worst soil is a heavy clay, and the next a light loose sand; a moderate clay, however, is preferable to a very light soil, though not so pleasant to work, yet the

former may be made good garden soil with a little trouble and expense, but the latter will require a great deal of both. The circumstances before mentioned having been considered, it will very rarely happen that the soil should be to the mind; it will either prove too poor, too strong, or too light, and in either case it must be carefully improved without delay; in the performing of which we must be guided by its nature, so as if possible to render it subservient to most general purposes. Hence our duty is to endeavour to hit on that medium which suits the generality of vegetables grown in kitchen gardens.

If the bottom or subsoil be of a wet cankering nature, judicious draining is the most eligible means; but where the soil is stubborn, small gravel, sand, coalashes, lime, brick-kiln-ashes, &c. are very appropriate substances to be applied, and will, if carefully and well worked into the ground by digging in the winter months, or indeed at all times when not in crop, soon bring the ground into a proper texture for most purposes. The ground should be laid in ridges, in order to give the greatest possible extent of surface for the weather to act upon. Where the soil is poor sand or gravel, clay, or clayey loam, scourings of ditches which run on a clayey subsoil, pond-mud from a similar situation, or scrapings of roads which lie in a clayey district, &c. are great improvers, but all these are of little use unless the ground is well worked and pulver-

ised, which is of itself a very obvious improvement, and which indeed is applicable to most soils, and that in proportion to their adhesive texture. Even free silicious soils will, if not moved, soon become too compact for the admission of heat, air, and rain, and the free growth of the tender fibres of plants; but shall treat this subject more at large in a succeeding page.

The next consideration engaging our attention is water; a copious supply of which is essential to a good kitchen garden, it being necessary both to the commencement and progress of vegetation, as it is the vehicle which conveys to vegetables all the substances useful to their support, and without this element no one will continue to vegetate, and if kept long without, the leaves will droop and assume a withered appearance, and for want of this many kitchen garden crops are lost, or the produce of very inferior quality.

From whatever source this material is furnished, it should be conducted to, and reserved in, an open pond or basin, as near the centre of the garden as possible, as being the most convenient situation. Well-water, recently drawn, is very improper for watering any kind of vegetable; yet if it has stood in a pond or basin until impregnated by the sun's rays it may be used; but soft or rain water is much more conducive to vegetation. The garden should be situate near a river, pond, or brook if possible, from which the water may be conducted to it by drains or pipes,



being careful to lay them low enough to receive the water in the driest season, when it is generally most wanted. If the situation be such as to require the water to be pumped or drawn from deep wells, it should be exposed to the sun and air some days previous to using.

Our next consideration is as to form; and none is more proper than a geometrical square, or a parallelogram, giving a decided preference to the former. It must be remembered the form here spoken of more properly refers to the space inclosed by the wall, than the whole space inclosed by the ring fence.

Kitchen gardens are generally bounded by lines of walling, the chief reason for which is for the production of fruit; as a kitchen garden, destined solely for the production of vegetables, may be as completely fenced by hedges as walls, and indeed where hedges are good, they are more secure from robbers.

In laying out a kitchen garden with walls, the principal considerations are as to the height, aspect, construction, and materials.

In respect to height of walls, this is more commonly determined by the size of the garden, and the inclination of its surface, than with respect to the training of fruit-trees. A small spot, inclosed by high walls, has a bad gloomy appearance, but if they are built of different heights, this bad appearance will be relieved. In a garden of an acre, and nearly or wholly of a geometrical square, and gently elevated, the north wall may

be raised to fourteen feet; the east and west walls to twelve feet; and the south wall to ten feet above the surface of the ground. If the garden be larger, the walls may be somewhat higher, but not in proportion if they extend to several acres. The extreme height of the north wall of any garden should not exceed eighteen feet; the east and west walls fifteen; and the south one twelve. The reader will observe that the terms *north* and *south wall*, are here used to denote the north and south sides of the garden; but in speaking of wall-fruit, if it be said a tree requires a south wall, it must be understood to mean a wall with a south aspect. It may be asked, why are the walls of different heights, or why is the back or north wall built higher than the others; for which there are two reasons: first, by being raised higher it shelters the garden from the northern blast; and, in the second place, it affords ample space for training the finer sorts of fruit-trees on the south side of the wall, or best aspect of the garden.

The aspect is the next consideration to be regarded. South aspects are generally considered the best for fruit-trees, but reason and experience teaches that an aspect a few points to the east, is the best for all sorts of fruit that require the most regular heat to bring them to perfection and earliest to maturity. It may be argued that the hottest part of the day is the afternoon, and that the sun shines stronger then than in the morning, and so it does, because it continues to

act upon air already heated by the influence of its morning rays; yet it is not so healthy, as the great heat of the sun causes the trees to exhale their juices faster than the roots can absorb them, which will cause the fruit to be smaller, and the pulp harder and worse flavoured than such as receive the heat more regular. On the other hand, on an aspect towards the south-east, the trees will catch the sun's rays earlier, by which the cold night dews will be sooner and more gently dissipated, and the scorching rays of the afternoon's sun are sooner off. It must be allowed that a south wall receives more sun than a south-east one, but this is of little or no advantage, for before the time the sun leaves the latter, the air will be sufficiently warmed by the continued action of the sun upon it.

The next consideration is the construction; and in this the straight upright form is preferable to any other. The foundation for these walls should be dug out no deeper than the thickness of the soil on the surface, in order that no more of the wall may be lost than necessary. They must be built solid, upon a good foundation, and not formed upon arches at their bottoms, as recommended by some, for when the roots of the trees go out at the back sides of the walls, at their freedom, they draw a considerable quantity of rancid unprepared juices from the earth into which they have struck; the consequence of which is the falling off of the fruit, and that frequently after it has acquired a considerable size.

When walls are of any length, and the foundation not very good, they may be strengthened by projecting buttresses set at intervals; yet if they will stand without being in danger, the face of the walls have a better appearance without them. With respect to coping, practical men are of various opinions. Some say, it should not project more than half an inch beyond the face of the wall; others, that they should project several inches, in order to throw the wet off the trees; others give it a slope all  $\frac{1}{2}$  one side, in order to throw the wet to the worst aspect, which, if planted with fruit-trees, is very wrong; it being very disadvantageous to trees trained to such wall, if there can be any disadvantage in rain falling upon them, which is a matter of question, except just when the fruit is ripening, when it perhaps might be as well dry; and also when the trees are in blossom or fruit setting; at other times the little rain that falls on the foliage may be considered of advantage, upon the principle of watering the leaves of wall-trees in an evening, which refreshes them very much, and helps to clear the trees of insects and filth. There can be no objection to a temporary coping of boards, projecting a foot or eighteen inches over the trees when in blossom in the spring, as they will greatly repel the perpendicular frosts, which frequently happen at that time, and which are very injurious, both to the blossoms and setting fruit. A fixed coping, projecting an inch to preserve the wall, is all that is necessary, and if

more, (generally speaking,) do more harm than good, by excluding the light, rain, and air from the trees in summer, and also by harbouring caterpillars and other vermin.

We now come to speak of the materials for kitchen garden walls; the best of which is brick for the superstructure, and stone for the foundation and basement. Brick absorbs more heat, and answers better in all respects for training trees to than stone. If the wall is not entirely built with brick, it should be faced with it on the south-east and west aspects. If durable stone can be obtained, the basement of the wall should be built of it in preference to brick; in many cases it is cheaper, and in every case more firm and solid. The basement of all walls should be some inches thicker than the superstructure; for instance, for a brick and a half thick wall, the basement should be at least twenty inches. Where bricks are scarce and stones plentiful, the back part of the wall, as well as the foundation, may be built of stone, and that side of the wall having the best aspect faced with brick; but, let the materials be what they may, the courses should not be laid level or horizontal, but parallel to the surface of the border, which has not only a better appearance, but answers much better for training trees horizontally. Wooden walls may be adopted in small gardens, but they are not so durable, yet as good fruit may be produced upon them.

We shall now proceed to treat on the cultiva-

tion and management of kitchen gardens, which includes every requisite in order to obtain a sufficient production of the various vegetables grown therein. It must be understood that the cultivation and management of the kitchen garden is, the keeping of it in such order as to afford both ample pleasure and profit for the labour and expense bestowed upon it. It ought not only to be a garden of profit, but a garden of pleasure also; that is, it ought always to be so managed as to be agreeable to walk in at all times when the weather is dry. A person may be well acquainted with the culture of some individual vegetables, and yet be an entire stranger to the proper cultivation and management of a garden.

The first circumstance we shall consider, as being conducive to the above objects, is the culture and management of the soil, which must be particularly attended to, and kept in a proper state to receive either seeds or plants when called upon. The soil of a garden should be frequently pulverized by proper digging, in order that it may be sweet, free, and rich, or no great things can be expected as to forward, well-flavoured, handsome productions. The soil should be sweet, that the nutriment which the roots receive may be wholesome; free, that they may be at full liberty to range in quest of it; and rich, that there may be no defect in food. It must be remembered that vegetables are not possessed of any locomotive powers, they cannot, like the animal creation, range from place to place in

search of food, they can grow only where planted, consequently they must be supplied by different means with food, and that according to their different habits and constitutions. It must also be remembered that soil, exclusive of vegetable matter and water, furnishes nothing to a plant, and is of no other use than that of furnishing them with a medium by which they may fix themselves to the globe; hence the importance in the application of manure.

Trenching and pulverizing the soil in autumn and winter (and indeed at all times when the ground is vacant) greatly improves it, and that according to its adhesive texture, being indispensably necessary for strong clay, to separate and ameliorate the parts; this amelioration and separation of parts is principally effected by frost, which circumstance may be explained on this principle, that the expansion of the water contained in the soil during its congelation increases about one-twelfth its whole volume, and in its contraction of bulk, during a thaw, leaves the parts so extended, separate from each other, and so makes the soil more permeable to the influence of the sun and air.

The object in pulverizing the soil is to give free and sufficient scope to the roots of vegetables, which should be abundant, otherwise no plant will become vigorous, let the soil in which it is planted be ever so rich. The fibres of the root take up the nutriment they meet with in the soil by intro-susception, and the quantity taken up

does not depend alone on the quantity in the soil, but in the number of absorbing fibres. The more the soil is pulverized the greater is the increase of absorbing fibres, consequently the more vigorous does the plant become. Upon the same principle, pulverization is of advantage, not only previous to sowing and planting, but is found considerably so during the progress of vegetation, when applied in the intervals among the plants while the crop is standing. In the last case it may be considered to operate by way of pruning, as cutting off the ends of the extending fibres causes them to put out numerous others, thus increasing the number of mouths or feeders, whereby a greater quantity of food is taken up to the support of the plant. The increase of the number of fibres is as the inter-pulverization, but it must be considered that the strength of the vegetable, in consequence of this multiplicity of fibres, depends very much on the quantity of food in the soil; many mouths are but of little use when there is little or nothing to eat, and it would be in vain to suppose (as some have done) that pulverization alone would be sufficient to promote and support vegetation.

The depth of pulverization depends in a great measure upon the nature of the soil. In rich clayey soils it can hardly be too deep, for when the roots of vegetables are deep they are not so liable to be injured either by drought or excess of rain.

It is well known to most cultivators that sera-



tion, or exposure of soils to the atmosphere, greatly improves them, as is experienced by its use in compost heaps, and in winter and summer ridging and trenching.—*Ridging* is applicable either to dug or trenched ground, and when finished, the surface, instead of being an even one, lies in ridges or close parallel elevations, the sections of which form nearly equilateral triangles connected at their bases; thus double the space of surface is exposed to the influence of the atmosphere and weather than in even surfaces.—*Trenching* is applicable to all soils, and is performed with two views: first, for mixing and pulverizing the soil, and secondly, for changing its surface. Gardeners and cultivators are frequently heard to complain of their ground being as it were worn out and will not produce certain kinds of vegetables, not that it is poor, or its nature unfit for them, but that it has become tired of these crops, from their being grown upon it for several successive years, notwithstanding that manures had been regularly applied.

The best method with which I am acquainted for the conservation of the fertility of the soil is this: to take three crops off the first surface, and then trench the ground three spits deep, which operation is performed by first opening a trench two or three feet wide, carrying the soil so taken out to the end, where it is intended to finish the plot; then another strip the same width is to be begun, and one spit of the top

surface thrown to the bottom of the first trench. Having thrown in the crumbs of the first stratum, the next spit under must be cast upon the first in the same way, and the third upon the second, by which means the top and bottom spits are reversed, and the middle remains in the middle. Three crops should be taken off this surface also, and then trenched two spits deep as before, and turning the surface spit to the bottom, and second to the top by which the middle, becomes the top, and the top the middle. Take also three crops off this surface, and then trench three spits, whereby that which was last the middle, and now the top, becomes the bottom, and that which is now the bottom, and was the surface at first, now becomes surface again, after having had six years' rest. Proceed in this manner alternately, treuching one time two spits deep, and the other three, by which means the surface will always be changed and will rest six years and produce three. This was W. Nicol's method, and which I am willing to believe cannot be much improved upon. "Hence," he further observes, "there will always be a new soil in the garden for the production of wholesome vegetables, and hence also will much less manure be required than when the soil is shallow and the same surface constantly in crop." It is not intended that the whole of the garden should be trenched over the same year; one half, or a third part, may be more convenient.

The next consideration engaging our attention

is *manure*; the use of which is of so much importance, that almost every thing in culture may be said to depend upon it. When manure is applied the ground should never be over-done with it; a little at a time and often is much better than a deal at once and now and then applied, for when used in great quantities and lying in lumps, it breeds and encourages worms, grubs, and numerous other insects, and also forces the plants to grow too rampant and rank-flavoured. Vegetables are always sweetest the less dung is used.

There are various ways of applying manure, depending chiefly on the season of the year and the sort to be used, and also on the condition which it is in. When the superficial soil is much exhausted, it is a good way to dig it over late in the autumn, and spread some good rotten manure on its surface, and let it lie till towards spring, or till the ground is wanted, before it is dug in. This method is particularly suitable for land on which superficial growing crops, as onions, leeks, radishes, &c. are to be. When the ground is to be manured at the time of planting, the best way is to spread the manure on the surface previous to digging, and dig it in immediately, and particularly so in spring and summer time, for if left exposed to the action of the sun and air, a greater part of its nutritive matter will be lost by evaporation, or otherwise. Manure may be applied either as a simple or as a compound, but the latter method is the most

eligible, where a well-flavoured crop is the leading consideration, for if it has not undergone a proper fermentation, its effects are giving a rank and disagreeable flavour to vegetables.

To treat on the subject of the different species of manure, would be extending the work beyond its intended limits, as well as being a digression from our subject; therefore those who would wish to be informed further on that head, will do well to refer to Sir H. Davy's "Elements of Agricultural Chemistry," where they will meet with every information desired on the subject.

A rotation or change of crops is a matter of much importance, as it is well known to most cultivators that each sort of plant requires a somewhat different nourishment, so that one crop may immediately succeed another; but it should be contrived that a wide crop should follow a close one, and vice versa.

The seasons for planting or sowing each sort of vegetable should be particularly attended to, in order that each one may be obtained as early as its nature will permit. Great care should be taken that all seeds are of the best kind, lest, after the trouble of cultivation, disappointment either as to vegetation or quality, or both, ensue.

The quantity of ground to be sown or planted with each sort of vegetable, must be determined by the size of the garden, and also by the demand of the family it is to supply; but it is advisable to sow or plant more of each sort than it is supposed may be wanted, in order to provide for

a greater demand than may be expected, and also against unfavourable seasons. Taking all circumstances into consideration, no exact rule can be laid down in order to proportion the crops properly; therefore the cultivator must use his own judgment, and that with a little discretion, being careful not to have too little of one crop and too much of another, which are features of bad management, appearing both disagreeable and discreditable. The duration of crops vary; some being soon over, and some continuing a length of time, according both to their nature and the favourableness of the season, and the time of the year they are propagated.

The principal time for propagating the different kinds of vegetables falls in the spring months; that is, in February, March, and April, for crops to come in in summer, and lesser portions for successive summer and autumn, are to be sown or planted from April to October. See each article in the body of the work.

The season for pricking out and planting each crop must be well attended to, doing it as early as may be, allowing sufficient room between each plant, by which means they will be forwarder, larger, and much superior in quality.

Thinning of seedling crops should always be attended to in time, before the young plants have drawn each other up too high. All kinds of vegetables grow stronger and come to greater perfection when there is a free circulation of air round them, and the sun not impeded. This

should be attended to soon after the plants appear above ground. Some people are so tenacious about taking out a sufficiency, that they frequently lose half or more of their crops, giving no other reason than, "it's a pity to pull them up." I think much greater pity is due to such cultivators for their weakness in allowing them to stand so thick.

The eradication of weeds is in all respects a matter of the very utmost importance, where a proper feature of the garden is desired; or, in other words, where *beauty* and *order* of garden scenery is of the least consideration. Some gardens promise to supply abundant crops, yet it too frequently happens that the cultivator will either from negligence or fear of expense, submit them to destruction by noxious weeds, and his ground to be robbed by them of its riches. When I behold a garden of this description, the words of Solomon sound loud in my ears, when he says, "I went by the field of the slothful, and by the vineyard of the man void of understanding: and lo, it was all grown over with thorns, and nettles had covered the face thereof. Then I saw and considered it well: looked upon, and received instruction." It is to be hoped the cultivator will advert to the words; see, and consider them well: look upon them, and receive instruction; and banish from his garden that baneful enemy, weeds. The means of destroying weeds is either by hoeing or pulling them up by the hand, and exposing to the sun and air, or

what is in every case much better, taking them to the refuse heap at first, there to be destroyed by fermentation.

Watering in any weather is a matter of much importance, as it does not only afford a proper degree of moisture to the vegetable creation, but it is of service in bringing the soil into a proper state to perform its various offices. *Dry earth* of itself has little effect, but when *moistened* it has the property of decomposing atmospheric air, and of conveying its oxygen (which is the air we breathe, and which is necessary for the support both of animal and vegetable life; hence the words of the poet Darwin, wherein he says,

"The vital air

Pervades the swarming sea, and heaving earths,  
Where teeming nature broods her myriad births;  
Fills the fine lungs with all that breathe or bud,  
Warms the new heart, and dyes the gushing blood;  
With life's first spark inspires the organic frame,  
And as it wastes, renounces the subtil flame."

to the roots of those plants which vegetate within it; it also performs an important part in most of the changes that take place, both in the animal and vegetable kingdoms. Watering in some cases may be considered productive of more harm than good; as in using hard or calcareous water, which, if abundantly applied, will not only taint the vegetables, but will injure the surface of the ground by disordering (if the phrase may be allowed) its free and fertile prop-

erties. Rain water should always be used if it can be obtained, the defect of which must be supplied by such as has stood exposed until it has become impregnated with the sun's rays. The time of watering must be regulated by the weather being cold or warm; watering in an evening should generally commence towards the end of May, and continue till the latter end of September, or, as the nights are for being favourable and mild, but at all other seasons morning is the best time.

Most or all kitchen crops are gathered by degrees, beginning as soon and continuing to gather as long as possible. At the same time no part of a crop should be gathered until it has attained some degree of maturity, nor after it has begun to decay. In respect to the degree of maturity, it frequently depends on the particular tastes of families; as in the case of cabbages, some esteeming them most while open and green, and others not until they are fully headed and blanched. The same difference in taste as to most other kitchen crops may be noticed. The operation of gathering kitchen crops is performed either by cutting, as in the case of cabbages; by pulling or breaking, as in the case of peas, beans, &c.; or by pulling or rooting, as in the case of onions, turnips, potatoes, celery, &c. In the performance of these operations due regard should be had to those plants, &c. (if any) that are to remain, as in the case of pulling onions, turnips, &c. As soon as each crop is over, the roots and other



remains should be removed to the compost heap or dung yard.

Preserving vegetables is a matter of considerable importance, and for directions for performing the same, the reader is referred to each of their respective heads in the body of the work.

Shall conclude this part of our subject by offering a few hints to the operative gardener: viz. Let him perform every operation in its proper season, and in the best manner; let him complete every operation as he proceeds, and finish one job before he begins of another. In leaving off working at any job, let him leave his work and tools in an orderly manner. In leaving off for the day, let him make a sort of temporary finish, carry his tools to the tool house, clean them, and hang them up, or otherwise set them in order; let him keep a vigilant eye in passing to and from work, or on any other occasion, and look out for weeds, decayed leaves, or other deformities, and remove them as soon as possible. In gathering a crop or any part thereof, let him at the same time remove the roots, leaves, and stems of which the desired part is gathered to the refuse heap; let him take care that no crop or any part thereof go to waste on the ground; and lastly, keep every thing that is under his care perfect in its kind.

Having thus given a short treatise on the formation, the cultivation and the management of kitchen gardens, shall in the next place give some account of the distribution of fruit-trees, a

proper arrangement of which is a subject of very considerable importance; and a right performance of this work requires no small degree both of skill and attention, in selecting such kinds of fruit-trees as will insure a regular succession of fruit throughout a greater part of the year. This subject comprises 1. Wall-trees; and 2. Espalier or Dwarf Standard.

Shall commence our present subject with the choice of fruit-trees in the nursery, which remarks may be applied to all sorts of fruit grown in a kitchen garden. Every possible attention should be had in the choice of plants; for, after being at a considerable expense in erecting walls, making borders, &c. to have a tree that does not give satisfaction is a great disappointment.

Let the kind of fruit-trees wanted be whatever they may, choose such as have grown vigorous and straight, and have a healthy appearance. The trees should never be more than two years from the budding or grafting, but in most cases if only one they are better, as much disappointment is sometimes the consequence of planting older trees, perhaps through being previously grown in a different soil, or by injuring the roots in taking up, &c.; and thus, instead of saving time, it is generally lost, being after some years obliged to take them up and plant over again; hence the old proverb, "work once well done, is twice done."

The distance the trees should stand from the wall is eight or nine inches, and from each other

must depend both upon the kind of fruit and height of the wall. The larger sorts of apricots, such as grow freely and do not well endure the knife, should be planted at from twenty to twenty-five feet asunder, according as the height of the wall is, from ten to fifteen feet; if the wall be higher the distance may be less, but if lower it must be greater. Peaches and Nectarines should be from fifteen to twenty feet asunder, according to the sorts and height of the wall; the small early sorts, upon a ten-foot wall, may be sixteen feet apart, and upon a twelve-foot wall fifteen feet will be sufficient. The later and larger kinds must be planted accordingly. Plums, pears, and cherries must be planted by the same rule, plums from eighteen to twenty feet; pears from twenty-four to thirty; and cherries from twelve to fifteen feet asunder. These distances may appear too great to some, but if they are planted closer, it will be found troublesome to keep them within due bounds; to do which, the cutting they must have will cause them to run too much into wood, and thus become less fruitful.

Riders of such sorts as are quickest in coming to bearing may be introduced betwixt the principals, and cut away as they advance, in order to give them room, and also to prevent their robbing or impoverishing the borders too much.

Our next consideration is, as to the sorts of each kind of fruit chiefly grown in kitchen gardens, at least to a limited number thereof. Of late the passion for multiplying, and having a

numerous collection of fruit, has exceeded all the bounds of reason. In this respect I am well convinced I shall be acting with justice to those planting new gardens, in recommending them to limit the *varieties* to a few good kinds that produce well in most seasons, rather than planting many sorts for the sake of variety, from which a crop is not obtained, perhaps, once in five or six years. Certainly it is of importance to select and adopt those kinds that are most agreeable to climate, soil, and aspect, and in some respects a greater variety may be planted, with propriety, than in others. I shall here give a list of such fruit as in my opinion will answer every end, though better judgment perhaps may substitute other sorts equally good. I shall commence with apples, placing them and other kinds of fruit according to the order of their ripening, and also give a descriptive account of each.

*June-eating, Juniling, or Geniton.*

The fruit is small, of a roundish form, and yellow and red colour; it ripens in July, and continues till September; the pulp is tender and juicy; a good bearer, and the tree of small low growth.

*Spring-grove.*

The fruit small and of a conical form and pale-green colour; it is ripe in July and continues till September; the pulp is soft and juicy; tree hardy, a great bearer, and the fruit chiefly used in the kitchen.

*Golden Pearmain.*

The fruit large, roundish, and of a deep red and yellow colour; it ripens in August and continues till October; pulp soft and sweet; a hardy tree, but not large; a good bearer, and the fruit much esteemed.

*Hawthorndean.*

The fruit is large and rather flat, and of a pale-green colour; it ripens in August and continues till January; the pulp soft, juicy, and acid; a very hardy tree; a great bearer, and the fruit good for all kitchen purposes.

*Borsdorf.*

Fruit medium size, conical form, and of a yellow green colour; it ripens in September and continues till February; the pulp is firm and of an aromatic flavour; tree of low growth, a middling bearer, but an excellent fruit for the table.

*Padley's Seedling.*

Fruit large and oval, and of a red freckled colour; ripens in September, and continues till February; the pulp is richly perfumed, tree hardy, a great bearer, and most excellent fruit.

*Lamb Abbey.*

Fruit very large, oval, and of a yellow colour, with green and red spots; it ripens in September, and continues till April; pulp crisp and aromatic;

tree handsome, a great bearer, and excellent fruit.

*Old Golden Pippin.*

Fruit small, roundish, and a gold yellow colour; it ripens in October and continues till February; flesh firm and sweet; the tree but a middling bearer, but an excellent fruit, fit both for the dessert and kitchen.

*North's New Scarlet.*

The fruit middling size, round figure, of a gold and pale-red colour; it ripens in October, and continues till March; pulp firm and aromatic; a vigorous growing tree, a middling bearer, but an excellent fruit.

*Wood's New Transparent.*

Fruit small and flat, and of a green and yellow colour; ripens in October, and continues till February; flesh firm and juicy; hardy tree, great bearer, and excellent fruit.

*Hollow-eyed Rennet.*

Fruit small, flattish, and of a green-yellow and russet colour; ripens in October, and lasts till April; pulp firm and aromatic; tree small, a great bearer, and much esteemed fruit.

*Kernel Rennet.*

Fruit large, angled, and of a deep red and white colour; it ripens in October, and lasts till

April; flesh firm and tender; large hardy tree, more adapted for the orchard than the garden; but it is an excellent fruit both for the kitchen and dessert.

*Pomme d' Apia.*

Fruit very small, roundish, and of a bright yellow colour; ripens in October, and continues till July; flesh firm and juicy; tree very small, a great bearer, and the fruit without seeds or core.

*Holland Pippin.*

Fruit medium size, ovate form, and of a gold and green colour; it ripens in October, and continues till January and February; flesh crisp and firm; tree hardy and large, a good bearer, and much esteemed fruit.

*Lucas Pippin.*

Fruit a medium size, cylindrical, and of an orange colour; it ripens in October, and continues till May; pulp firm and juicy; handsome spreading tree, good bearer, and showy fruit.

*Warwickshire Pippin.*

Fruit small and round, and of a gold and green colour; ripens in October, and continues till March; flesh firm and aromatic; tree delicate and slender twigged, but a good bearer, and the fruit fit either for table or kitchen.

*Baxter's Pippin.*

Fruit large, oblong, and of a green and red colour; it ripens in October, and continues till June; flesh firm and sugary; tree handsome, good bearer, and much esteemed fruit.

*Eve.*

Fruit large, round, and of a red and green colour; it ripens in October, and lasts till July; pulp soft and juicy; a hardy tree, propagated by cuttings; a good bearer, and useful fruit.

*Dredge's Beauty of Wills.*

Fruit medium size and oval form, of a bright yellow, spotted with red; it ripens in October, and lasts till March; pulp firm and juicy; a great bearer, and one of the best apples grown in point of usefulness.

*Franklin's Golden Pippin.*

Fruit a medium size, conical, of a golden yellow colour, with dark spots; it ripens in November, and continues till March; flesh firm, and highly aromatic; tree rather slender, and middling bearer, but an excellent fruit. The fruit should hang on the tree till it falls off.

*Alexander the Great.*

Fruit very large, obtusely conical, and of a red and green colour; it ripens in November, and



lasts till February; pulp firm and vinous; large hardy tree, medium bearer, but a magnificent fruit.

*Margil.*

Fruit small and round, and of a red and yellow colour; it ripens in November and continues till March; flesh firm and aromatic; a delicate twigged tree, a great bearer, and highly esteemed fruit.

*Dredge's White Lily.*

Fruit medium size, round form, and red and yellow colour; it ripens in November and lasts till March; flesh firm and sugary; tree free growing, a good bearer, and greatly esteemed fruit.

*Ribstone Pippin.*

Fruit middling size, round, and rather flat, of a green bright red colour; it ripens in November and continues till March; pulp firm and aromatic; tree very subject to canker, a middling bearer, but one of the best apples grown.

*Harvey's Russet.*

Fruit large, ovate, and of a green colour; it ripens at Christmas, and continues till May; flesh firm and sweet; an upright tree, and great bearer.

*Aromatic Russet.*

Fruit medium size, ovate form, colour yellow and red; it ripens in December, and continues

till May; flesh firm and sweet; tree slender, a medium bearer, but a good fruit.

*Norfolk Beaufin.*

Fruit middling size, flattish, and a deep red and pale green colour; it ripens at Christmas, and lasts till August; flesh firm and savoury; tree hardy and upright, and a good bearer. Fruit generally used in the kitchen.

*Lincolnshire Rennet.*

Fruit large, ovate, and of a brownish green colour; it ripens in December, and continues till July; tree vigorous, a good bearer, and a valuable fruit.

Have now given a list of such apples as are the most esteemed, with their respective times of ripening and duration, but in respect to proportioning the quantity of each sort to be planted, hardly any direction can be given, but must be determined by existing circumstances, as the extent of the garden, demands of the family, fancy of the proprietor, discretion of the gardener, &c. All that can be said is, that for a middling family, about one-third may be considered as for dessert, and two-thirds for culinary purposes.

In respect to planting apple and pear trees in kitchen gardens, as espaliers or dwarf trees, various opinions have been entertained by authors and practical men, whether or not they are more

injurious than beneficial, and this they are, if improperly planted, and that with bad and improper sorts, and the trees afterwards trained horizontally to an espalier railing, as they are hurtful to crops of vegetables growing near them, by depriving them of the beneficial effects of the sun and air, so congenial to them. But, in fact, if they are planted properly, and at proper distances, (that is, three feet and a half from the walk, and from fifteen to eighteen or twenty feet asunder in the line,) in single rows, along the sides of the walks, and kept properly pruned as bushes instead of espaliers, they will be much less injurious to vegetables, and, generally speaking, more productive and convenient for access in cultivating the quarters, and much less trouble and expense to keep them, as well as having a much handsomer appearance when in flower, and still more so when in fruit. Apples and pears only are proper for this purpose. Plums and cherries are better planted on the walls, and those generally on the worst aspects, except a few of the more valuable plums and cherries, as the Green Gage, Roche-corbon, and La Royall plums, and Mayduke, Harrison's Heart, and Morello cherries, which is much improved by being planted on a south-east, south, or south-west aspect. Standard trees should never be admitted in a kitchen garden, as they would in every sense of the word be *injurious* in the highest degree.

In the next place we will turn our attention to the pear a fruit in great esteem, but the varieties

are not so numerous as those of the apple, the reason of which is, perhaps, on account of the length of time it requires to prove the quality of the fruit as seedlings, being from fifteen to eighteen years before they begin to bear. Several new names have of late entered into the catalogues, but it is to be doubted whether accompanied by much improvement in the end; other opinions and better judgment may perhaps speak more favourably, but shall give a list of such as are generally known to be good fruit and ripen well, either as standards, espaliers, or on walls. Shall arrange them in the order of their ripening, as follows:—

*Muscat Robert.*

Fruit small and of a yellow colour; it ripens in the end of July, and continues to the end of August; of a rich musky flavour, a great bearer, and much esteemed dessert fruit.

*Early Carnock.*

Fruit small, and of a yellow and bright red colour; it ripens in the middle of July, and continues till the middle of August; of a melting musky flavour, esteemed dessert fruit, and makes a beautiful tree.

*Jargonelle.*

Fruit large, skin smooth, and of a pale green colour; it ripens in the end of August, and continues till the middle of September flesh melt-

ing and juicy; tree vigorous, a good bearer and good dessert fruit

*Early Roussellet.*

Fruit small, very thin skinned, of a reddish colour, and ripens in the end of August, but is soon over: flesh melting and sugary, and the tree is a great bearer.

*Elton.*

Fruit medium, ovate, and flat at the extremities; it ripens in the beginning of September, and lasts till the beginning of October; flesh tender and juicy; tree handsome, and a great bearer.

*Golden Beurre'.*

Fruit medium size, and of a scarlet and gold colour; it ripens in October, and the flesh is melting and high flavoured; the tree a great bearer; a fine dessert fruit.

*Autumn Bergamot.*

Fruit small and ripens in the beginning of October; flesh melting and highly perfumed; tree hardy, a great bearer, and the fruit much esteemed.

*Monsieur John.*

Fruit ripens at the end of October; flesh breaking rich and sugary, a most excellent fruit, few equal to it for the dessert.

*Flowered Muscat.*

Fruit ripens in November; flesh very tender and delicate, and is excellent.

*St. Germain.*

Fruit ripens in December, and continues till March; flesh melting and juicy; a fine fruit. The tree requires a dry soil.

*Colmar.*

Fruit ripens the beginning of January; flesh white and tender; and greatly sugared. Esteemed an excellent table fruit.

*Holland Bergamot.*

Fruit ripens in the end of January, and lasts till April; flesh buttery, tender, juicy, and a good fruit.

*Bergamotte de Pague.*

Fruit large and of a green yellow colour; it ripens in April, and continues till June; tree a good bearer: an excellent fruit, and makes a very handsome appearance at table.

From the foregoing list may be selected such sorts as will ensure a crop of fruit from July to June following; and for planting the pear tree as dwarfs, along the edges of the main quarters of the kitchen garden, see the directions given for planting the apple, which will be agreeable and applicable here; but the directions for planting the pear-tree against the walls will be given

when treating on the subject of planting the walls in general.

Pear-trees for this purpose should be such as are grafted on quince stocks, as it gives them a more dwarfed habit of growth, and brings them more early into a bearing state. They may be such as are grafted on wildings, which will prosper on poor soils, but are subject to grow too luxuriant. It must be remarked, that *breaking* pears are rendered more gritty and strong when grafted on quince stocks than when on free stocks or wilding, but melting pears are improved thereby.

Shall now proceed with a list of plums, such as are most esteemed, and which may be had in most British Nurseries, placing them in the order of their ripening.

*Jauchative.*

Fruit small, round, and of a yellow colour; ripens in the end of July; flesh mealy; tree a great bearer, and the fruit chiefly esteemed for its precocity.

*Orleans.*

Fruit large, oval, and of a red colour; ripens in the end of August, is of a rich juicy flavour; tree a great bearer, and a well known esteemed fruit.

*White Perdrigon.*

Fruit of a pale yellow colour, intermixed with red spots; ripens in the beginning of September,

and is of a rich flavour and highly perfumed; is an excellent fruit either raw or in sweetmeats.

*Wilmot's Orleans.*

Fruit large, round, and of a dark purple colour; ripens in the middle of September; flesh rich and juicy; tree a good bearer, and the fruit much esteemed.

*La Royale.*

Fruit large, oval, red colour, and ripens in the end of September; is an excellent fruit, but the tree is a shy bearer.

*Saint Catherine.*

The fruit ripens in the end of September, is of a rich sweet flavour; the tree is a good bearer, and the fruit is superior to most others both for confectionery and eating.

*Great Queen Claudia, or Green Gage.*

Fruit medium size, round, and yellowish green colour; ripens in the beginning of October, and is of a rich musky flavour; the tree bears pretty freely, and is an excellent fruit.

*Coe's Golden Drop.*

Fruit small, round, yellow, and ripens in the middle of October; flesh good and well flavoured; the tree a good bearer, and the fruit keeps till the middle of December. The above sorts



are proper for *dessert* and kitchen use, but the following are proper only for the kitchen.

*Mirabelle.*

Fruit small, amber-coloured; ripens at the beginning of September, and the flesh is juicy and excellent for sweetmeats.

*Prunella.*

Fruit of a medium size, long pointed, of a white colour, and an excellent fruit for drying.

*Red Magnum Bonum*

Fruit large, round, of a black colour, it ripens at the end of September, and is an excellent baking fruit.

*White Magnum Bonum.*

Fruit large, oval, and of a yellowish colour; ripens at the beginning of October, and is an excellent baking fruit.

*Wine Sour.*

It ripens in October; the tree is a great bearer, will grow on any soil, and the fruit excellent for preserving.

Having given a list of what is considered the most valuable plums, shall now proceed with a list of peaches, placing them in the order of their ripening, as follows:

*White Nutmeg.*

Fruit, small, round, and of a white colour, and ripens in the end of July; juice sugary and musky, and esteemed for being the first sort ripe.

*Red Nutmeg.*

Fruit large, round, a bright vermilion and yellow-red colour; it ripens in the beginning of August, and the pulp is white, red at the stone, rich and musky, and esteemed for its early maturity.

*Early Purple.*

Fruit large, round, and of a fine deep red colour; ripens in the middle of August; pulp white, red at the stone; juice rich and vinous, and an excellent fruit.

*Great Mignonne.*

Fruit large, round, rose-coloured, greenish yellow, and ripens in the middle of August; pulp white, sugary, and high flavoured, and is one of our best peaches, and so tender as to require being grafted on a peach or apricot stock.

*Bell Chevreuse.*

Fruit medium size, oblong form, and of a red and yellow colour; ripens in the end of August, and the pulp is yellow, and the juice rich and sugary; tree a good bearer, and the fruit good.

*Mountainban.*

Fruit medium size, of a purplish red and pale-red colour; it ripens in the end of August; flesh white, melting, juicy, and rich, and the tree a good bearer.

*Red Magdalen.*

Fruit large, round, and of a fine red colour; ripens at the end of August; flesh firm, white, very red at the stone; sugary and very rich.

*White Magdalen.*

Fruit rather large and round, slightly striped with red, and of a yellowish white colour; it ripens in the end of August; flesh white at stone, and pretty high flavoured.

*Royal Charlotte.*

Ripens in the end of August, and is a very fine fruit.

*Late Violet.*

Fruit very large; colour violet-marble, with red; ripens in the beginning of September, and is a very fine fruit.

*Royal George.*

Fruit large, round, and ripens in the beginning of September; the flesh is of a rich melting flavour; tree a great bearer, and the fruit when forced sets with less air than most other sorts.

*Royal Kensington.*

Fruit of a high red and yellow colour; ripens in the middle of September; flesh rich and juicy, and is one of the best peaches we have, and not liable to be blighted.

*Noblesse.*

Fruit very large, and of a pale red colour, and ripens in the middle of September; flesh juicy and rich; the tree a good bearer.

*Yellow Admirable.*

Fruit yellow colour, and much like the apricot in flavour; tree a good bearer, and the fruit excellent.

*Catharine.*

Fruit large, round, and of a dark red colour; ripens in the beginning of October; flesh firm, white, red at stone, rich and pleasant; tree a good bearer, and excellent for forcing or under glass.

*Monstrous Pavis.*

Fruit very large and round, of a fine red and greenish white colour, and ripens in the end of October; pulp white, melting, deep red at stone, and a pretty juicy vinous flavour; tree a good bearer, and fruit excellent.

The first fourteen sorts are *free stones*, that is, such as the pulp does not adhere to the stones, but when broken quits itself from them. The two latter ones are *cling stones*, the pulp and stones adhering together.

In the next place the nectarine claims our attention; it is distinguished from the peach by its smooth, firmer, and more plump fruit. In other respects, the general description of the peach equally applies to the nectarine. The following is a list of such sorts as are chiefly grown in British gardens, placed in the order of their ripening, commencing with free stones:—

*Elrige.*

Fruit medium size, is of a dark red, and pale yellow colour; it ripens about the middle of August, and is soft and melting fruit.

*Fairchild's Early*

Fruit small size, round figure, and of a beautiful red colour; it ripens in the middle of August, and is good-flavoured.

*Scarlet.*

Fruit small size, and a fine scarlet and pale red colour; ripens in the end of August.

*Murry.*

Fruit medium size, dingy red and pale green colour, and has a rich juicy flavour; it ripens in the beginning of October.

The following are cling stones:—

*The Late Newington.*

The fruit is of a red and yellow colour, which ripens in the middle of September, and is excellent and juicy.

*Brugnon.*

Fruit of a deep red and pale yellow colour, ripens in the beginning of September, and has a rich juicy flavour.

*Early Newington.*

Fruit large, ripens in the end of August, and is of a deep red colour; pulp super-excellent, being one of the best nectarines we have, of perhaps in the world.

*Red Roman.*

Fruit large size, dark red and yellow colour; ripens in September, very juicy, rich, and a much esteemed fruit.

*Golden.*

Fruit medium size, and of a red and yellow colour; ripens in the beginning of October, and has a poignant rich flavour.

There are a few other sort of nectarines, but a sufficient quantity for a moderate sized garden may be selected from the above list, and if properly planted, will answer all demands that can be expected.

Shall now proceed to treat on the apricot, a fruit of all others (taking all circumstances into consideration) the most useful. Shall place them in the order of their ripening:—

*Masculine.*

This is an old variety, the fruit of which is small, of a roundish form, and greenish red colour; it ripens in the end of July, and the pulp is tender; the tree a good bearer, and the fruit esteemed for its earliness and tart taste.

*Orange.*

The fruit a medium size, of a deep yellow colour, and ripens in the end of August; the pulp dry and insipid, and more fit for tarts than the table.

*Roman.*

Fruit large size and round form, of a deep yellow colour, and ripens in August, but the pulp not very juicy.

*Breda.*

Fruit large, of a round form, and deep yellow colour, and ripens in the end of August; the pulp is soft and juicy; the tree a great bearer, and the fruit greatly esteemed.

*Brussels.*

Fruit medium size, inclining to an oval form, red with dark spots, and of a greenish yellow colour; it ripens in the end of August, and the fruit is not liable to become mealy; of a brisk flavour, and the tree a great bearer.

*Moor Park.*

Fruit large, round, and ripens in August; it is fine, and preferable to all others, except the

*Sandaver's King.*

This is a seedling by Sandaver of Southwell, Nottinghamshire, raised about eight years ago, and his not having distributed the sort more into the world is highly to be regretted by all lovers of good fruit, as this is, without exception, one of the best apricots grown; its nearest rival is the Moor Park, which, like most other sorts of fruit, having but a limited duration, is now fast hastening to decay, or becoming so degenerate from its original, as not much longer to deserve the attention of the planter. The fruit is large, rather oval, and deep yellow or gold colour; it ripens in the beginning of September; the pulp rich and juicy, and it is superior to any other sort for preserving; the tree is a great bearer, grows freely, and the leaves resemble those of the Moor Park.

Giving a list of Cherries forms the substance of our next consideration. This is not so much esteemed as most other sorts of fruit, at least it is not so useful; notwithstanding, no garden should be without it, and the following list will answer all purposes desired of it:—

*Mayduke.*

Fruit medium size, round, and a red colour; it ripens in the beginning of June, and the flesh is a soft and an agreeable acid; the tree a good bearer, and the fruit excellent.



*Archauke.*

Fruit ripens in the beginning of July, and is excellent.

*Ronald's Large Black Heart.*

Fruit ripens in the beginning of July, the tree a great bearer, and fruit valuable.

*Kentish.*

Fruit of a bright red colour, ripens in July, and has an agreeable acid flavour; tree a great bearer, and fruit much esteemed.

*Harrison's Heart.*

Fruit ripens in July and August; tree a good bearer, and fruit esteemed.

*White Heart.*

The fruit is heart-shaped, and generally esteemed.

*Morella.*

The fruit small, round, and of a red colour; tree a great bearer; the fruit will keep late, and is excellent for preserving, and for brandy.

The fig is a fruit desired in most families, and the following is a list of such sorts as are most agreeable to this climate:

*The White Genoa.*

The fruit large, with a thin skin, which is yellow without and red within; it is a good fruit, and ripens in the latter end of August. It bears two crops annually.

*Murrey.*

Fruit large, and of a lightish brown colour, and the inside and out nearly of the same colour; the flesh is well flavoured, and ripens about the latter end of September.

*Small Brown Ischia.*

This is a small brown pyramidal fruit, the flesh of a purplish cast, and of a high flavour.

*Black Ischia.*

This is a middle-sized fruit, the skin of which is almost black when ripe, and the inside of a deep red; the flesh is high flavoured, and the trees good bearers.

## A TREATISE

ON THE CULTURE AND MANAGEMENT OF  
CULINARY VEGETABLES, &c.

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### ASPARAGUS.

The young shoots when grown about four inches above ground are the parts to be used; they are in perfection from the middle of April to the latter end of June. This plant is much esteemed in Britain, and also on most parts of the continent, in consequence of which it has been cultivated from time immemorial. It appears to have been considered a luxury among the Romans, and history informs us they had a large growing variety, three of the buds weighing a pound, whereas with us six would be required.

#### *Varieties.*

There are only two varieties cultivated, the red-topped and the green-topped; the former rising with a large full close head of a reddish-green colour, and the latter not so plump and close, but generally considered of better flavour. There are several sub-varieties, as, the Battersea, Deptford, Gravesend, Early Mortlake, Dutch,

and Large Reading ; but the two varieties are most esteemed, the red-topped by market gardeners, and the green-topped by private families, and one mode of culture is applicable to both.

### *Propagation.*

This plant may be propagated by dividing the roots, but the most general and best way is that by seed, which should be sown in March, broadcast, not very thickly, on beds four feet wide, and in length according to the quantity required. Some gardeners make a practice of treading the ground after sowing the seed, which method I never pursue, but, as soon as the seed is sown, rake the ground smooth and even, being careful that the seed is all well covered; and when the plants have made their appearance, keep them perfectly clear of weeds, and stir the ground about them twice or thrice during the summer. If the weather proves dry at the time give a little water once a week. In the end of October following, protect the roots by covering the ground over with some rotten dung or litter, which must remain on until danger of frost is over.

### *Preparation of the Ground.*

In the formation of new plantations of asparagus, the first thing necessary for our consideration is the situation, which should be open and unincumbered with trees, and fully exposed to the sun. Damp or wet ground, and where the

subsoil is retentive of an undue quantity of wet, should be rejected as being very prejudicial to this plant. The soil should be from two to two and a half feet deep, and a light rich sandy loam. Before planting is commenced, prepare the ground some months previous by trenching it (if possible) two and a half feet deep, at the same time mixing a good quantity of well-rotted manure with the soil. When it has laid in this state a month, if the weather permit, work the ground over again to the same depth, and repeat this two or three times in order that the manure and soil may become better incorporated. At the last turning over, before planting, lay a good foundation of good well-rotted manure in every trench, as no more can be applied for several years, or indeed so long as the beds stand; *always* endeavour to do this work in the best weather the winter affords, rejecting rainy weather and snow lying on the ground, as it would tend to make the soil heavy and sad. This work should be attended to in particular, as the preparation of the soil is of far more consequence than the subsequent culture.

*Removal of the Plants from the Seed-bed, and final Planting.*

Perform the taking up of the plants from the seed-bed with a fork, being very careful not to break or cut the roots, or leave them a longer time exposed to the sun and air than possible, as no plant feels a hurt more severely than this; the

roots being brittle are easily broken, and do not readily shoot out again.—Asparagus may be planted from the beginning of March to the end of May, with success, but not equally so, the best time being just when the plants are beginning to grow, for if they were removed earlier the plants would lie a length of time in the ground as it were in a dormant state, and the roots being rather of a succulent nature would absorb a considerable quantity of moisture, which would cause them to rot, whereby the whole plant would be destroyed; and if removed after that time, the power of the sun and air would greatly injure them, unless care be taken and the roots put into a basket with some sand as they are taken up.

After this is done, and the ground being previously prepared as above, stretch a line lengthwise the bed, nine inches from the edge, and with a spade cut out a trench six inches deep, perpendicular next to the line, turning the soil to the other or outer side of the trench; then, having the plants in readiness, set a row along the trench, nine inches apart, with the crowns of the roots two inches below the surface; then move the line a foot and open a second trench, turning the soil taken out into the first over the plants, and so proceed, making an allowance of three feet betwixt every four rows for alleys. Should the weather prove dry at the time, give a little water to settle the soil to the roots, and repeat it until the plants become established.

*Extent of the Plantation.*

An asparagus bed should not contain less than a rod, as it frequently takes more than this quantity to make up a dish at one time, and for a large family twenty poles will not be too much.

*Progressive Culture.*

Never gather any buds the three first years after planting, but permit them to run up to seed, and keep the beds clear of weeds, stirring the soil at each weeding, in order to keep it in a loose state. It is the practice of some gardeners to throw out the alleys at every autumn dressing, and cover the beds with the soil so taken out. This may be done the first year after planting, but never afterwards; instead of which give a good coat of rotten dung, and fork it evenly both into the beds and alleys, and so on every season.—It is well known that this plant forms a new crown every year, and it frequently happens that in a few years the crown extends itself into the alleys, so by digging them out the plant is certain to be destroyed. When the beds are in good condition the roots are certain to strike into the alleys, so by digging them out in the customary way they must be cut off, and thus receive much injury. I should recommend that nothing at all be done to them rather than they should be treated according to this too general practice. The first two years a little celery and lettuce seed may be sown on the beds, and a few cauliflower plants

may be planted at two and a half feet apart in the alleys, but never after, as it will certainly rob the asparagus of a great deal of nourishment.

#### *Autumn Dressing.*

At the end of October or beginning of November, the stalks will have done growing and begun to decay, when they must be cut down close to the ground and cleared away, and taking off all weeds, and give the ground a coat of good rotten manure three inches thick, and fork it in quite down to the crowns, as above directed, by which means the winter rains, &c. will wash the manure down amongst the roots, which will be greatly benefitted thereby. Some people cover the beds with mere litter or recent dung from the stable, which I am apt to believe does more harm than good, as it only prevents the winter frost, &c. having any influence over the soil.

#### *Spring Dressing.*

At the end of March or beginning of April, just before the buds begin to rise, loosen the surface of the beds with a three-tined fork, being careful not to wound the crowns with the points of the tines; then rake the surface neatly level, drawing off all large stones and hard clods, leaving the beds as loose as possible, which enables the buds to rise in free growth, admits the sun, air, and rains into the ground, which encourages the roots to throw up buds of a superior size.



*Time of coming to a bearing state.*

The shoots or buds come up but weak and slender the first year, stronger the second, and still stronger the third, when some odd buds may be gathered, and in the fourth year the buds will be in full perfection.

*Cutting and Gathering.*

Never begin to cut till the plants come to mature growth, that is, three or four years after planting, at which time they are of proper strength to produce full-sized buds. The buds are in the greatest perfection when they have projected above ground from three to five inches, as then they are closed and plump. In gathering the buds scrape away an inch or two of the earth from the shoot, and then slip the knife down close to each shoot separately, and cut it off slantingly about an inch lower, taking care not to wound the crown or any adjoining shoot. Never cut much after the middle of June, but permit it to run up; in fact, the weak should never be cut at all. If on any particular occasion cutting should be required later than the above time, be careful to leave one or two shoots on each stool in order to draw the nourishment to it, for if left destitute of growing shoots they would perish, and thus fill the beds with vacant spots.

*Duration of the Plantation.*

A plantation of asparagus, under good management, will generally continue to afford plentiful

crops twelve or fourteen years; after which time the shoots begin to decay, at least begin to decline in fertility, and the shoots are much inferior in quality; so that to have a permanent supply every year, some fresh new beds should be planted about four years before-hand, in order that they may come to a productive state before the old ones are destroyed. Some people continue their beds from twenty to thirty years, but my opinion is that in so doing they lose much to gain little.

*To save Asparagus Seed.*

Select some of the largest and earliest buds as soon as they arise in the spring, to which place sticks or stakes, such as may serve to tie them to during summer, taking care not to injure the crown of the plant by driving the stake through it. When the berries are ripe gather and spread them in a dry airy situation, keeping them in the berry till the time of sowing. When the seed is gathered for sale it should be washed and the seed dried, otherwise the pulp is a great nourishment to the seed.

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ARTICHOKE.

The fleshy receptacle or bottom in an immature state are the parts to be used. Of this plant there are two varieties in cultivation, the Conical

or French, and the Globe; the former having an oval head with the scales open and not turned in at top as in the latter, which are turned in at top and the receptacle more succulent than the former.

#### *Propagation.*

This plant is propagated by off-sets from the old root in March or April, when they will be from five to ten inches high. In performing this work, open the ground about the old stool and slip them off clean to the root, leaving three or four of the strongest to the old mother plant, to bear the next summer crop. Prepare the off-sets for planting by clearing away all the under decayed or broken leaves, and any long or straggling top leaves, and any hard or ragged part at the bottom of the root.

#### *Planting.*

This plant delights in a rich light soil of a good depth, and in an open exposure. The ground should be well dunged and dug. Plant them by dibble, in rows, three feet and a half asunder, and three feet apart in the row. Give them water, and if the weather should prove dry, and continue so, repeat it twice a week till they have taken root

#### *Progressive Culture.*

Hoe the ground over frequently during summer in order to keep down the weeds and the

surface loose about the plants, which is all the management necessary until the season of production is over (except giving them water in dry weather). These roots will in general produce middling sized heads the same year, from August to November, and the year following be in full perfection. It frequently happens that several young shoots or heads spring from the sides of the main stem, but in order to encourage the principal head to attain a full size, detach them from the mother plant as soon as they can be applied to use, which may be when they are the size of hens' eggs. The main heads are not in full perfection until the scales diverge considerably, but should be gathered before the flower appear, cutting two or three inches of the stalk to each head. When the entire crop is gathered from the stem cut it down close to the ground, in order to give the plant more strength to enable it to send up superior new shoots next summer.

#### *Winter Dressing.*

First cut away all the large leaves, being careful not to injure the small central ones or new shoots. Then dig the ground between each row, raising the soil gradually, ridgewise, over the root and close about the plant. In frosty weather cover the ground with four or six inches thick of good rotten manure, laying it close about each plant.

*Spring Dressing.*

In the month of March or April, according as the weather proves favourable, clear away the litter and examine the stocks, and select two or three of the strongest and best shoots for growing and producing the next summer crop, and remove the rest by pressing them off either with the thumb, knife, or wooden chisel; then dig the ground level, loosening it well about the crowns of the roots of every plant.

*Duration of the Plants.*

The artichoke is a perennial plant, and continues productive several years, providing some good well-rotted dung be dug into the ground every year at the winter dressing, otherwise it will soon impoverish it so as to render the plant unproductive. In the course of seven or eight years, and with the very best management, the heads will degenerate and become smaller and less succulent; therefore it is necessary to make a new plantation about every six or eight years.

*To save Seed.*

Early in the summer select some of the first and largest heads, and when the flowerets are beginning to decay turn the head down, in a pendulous manner, in order that the calyx may throw off the wet. It, however, seldom ripens seed in this country.

## ARTICHOKE, JERUSALEM.

### *Use.*

The tubers of the root, which are generally abundant, are the part to be used, and before potatoes were known they were highly esteemed, and are yet considered a nutritious food, and are boiled and mashed with butter, and have an excellent flavour.

### *Propagation.*

The best mode of propagation is that of cutting the middling sized roots into sets, as in cutting potatoes, preserving not more than two eyes to each set, and one good strong one will be sufficient.

### *Planting.*

Plant this root any time from the beginning of March to the end of April. It will grow in any spare part or corner of the garden, but an open compartment will be more favourable to the production of good large tubers, and particularly so if the ground is rich and mellow.—Having prepared the ground by digging, plant them with a dibble, in rows, eighteen inches apart in the row, and three feet distance row from row, and about four inches deep, and then rake the ground over, filling the holes in regularly,

*Subsequent Culture.*

When the plants are come up, which will be in about six weeks after planting, the surface of the ground must be hoed over, and all the weeds destroyed, and at the same time draw a little soil up to the bottom of the stems, which is all the care they will require until the time of

*Gathering the Crop.*

The tubers will be ripe in October or November, at which time the stems should be cut down and the produce dug up as wanted, or taken up and laid in sand, under cover, in order that they may be ready in frosty weather, when they would be made up by frost in the ground. The roots of this plant, if not carefully taken, so as not to leave any small tubers or parts thereof, will prove very troublesome, as the least particle, in a manner, will come up the following year, and for several years, and pester the ground, and would not be sufficient for a crop. *Always* make a fresh plantation every year.

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**ALISANDERS, OR ALEXANDERS.***Use.*

The leaf-stalks, after being blanched similar to celery, is the part to be used as a pot and salad herb, and for which purpose it was formerly much cultivated.

*Propagation.*

This plant is propagated by seed, and where the plants are in constant demand a proportionate crop should be provided at different seasons. Sow for the first crop in the middle of March, for the second the middle of April, and for the third in the middle of May, for the successive summer and autumn crops, and a moderate portion in August to stand the winter, and to serve the spring and early part of summer till the spring-sown crop comes in. The seeds may either be sown in drills, eighteen inches apart, and thinned out to six inches distance in the row, or they may be sown broad-cast, and when come up about four inches, may be transplanted into rows at that distance.

*Subsequent Culture.*

When the plants are advanced eight or nine inches in growth, draw the soil up to their stems several inches on each side the row, the same as for celery, being careful not to let the soil get in amongst the leaves more than possible, as that tends to rotting it.—This is a biennial plant, and produces plenty of seed in autumn, when it should be carefully saved for sowing the following spring as above.



## ANGELICA.

*Uso.*

In former times this plant was more cultivated than at present on account of its leaf-stalk, which were blanched and used as a substitute for celery, but now they are used only when candied, and the proper time for gathering them for this purpose is in May, or while the stalks are young and tender. The seeds and leaves are sometimes used in medical preparations.

*Propagation.*

A moist situation appears to be most agreeable to this plant, as in such it is found in several parts of England; I never found any soil come it amiss. It is propagated by seed, which should be sown in autumn, as soon as ripe, as the plants come up stronger and earlier than when the seed is sown in spring. The seed should be sown broad-cast, on seed beds; the plants afterwards to be transplanted, when from four to six inches high, into rows three feet apart, and fifteen or eighteen inches asunder in the rows. Perform the work with a dibble, pressing the soil fast about the roots, and if the weather should happen to be dry, give a little water, and the plants soon strike root and advance in strong growth.

*Subsequent Culture.*

The ground about the plants should be kept clear from weeds, and when they are sufficiently

high, draw a little earth to them, as for celery, in order to blanch the leaf-stalk in the same way. The second year the branchy seed stems will rise several feet high, producing large umbellifrous heads of seed at the extremity of the branches. If seed is not wanted, cut the plant down in May, and the stool will send out side shoots; and although this plant is a biennial, by this means it will continue several years.

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### BALM.

#### *Use.*

It is seldom if ever used for any culinary purpose; its principal use is that of making balm-tea, to be drank in fevers and feverish complaints.

#### *Propagation.*

It is easily propagated, either by slips or parting the roots, leaving two or three eyes or buds to each. The time of planting is in spring.

#### *Planting.*

This plant will grow in any common soil; plant the slips or sets with a dibble, from twelve to fifteen inches apart, and give them water if the weather proves dry. They will soon take root, grow freely, and be fit for use the same year. It is a perennial plant, and will grow several years in one situation.

## BASIL.

### *Varieties.*

There are two varieties cultivated, both for the same use—the sweet or larger basil, and the bush or lesser basil. They are both annual plants, and highly aromatic; the former rising from six to twelve, and on ground suitable, to fifteen inches high, and is thickly set with small oval leaves; it flowers in June and July, and the flowers are small and white, and the latter is much less than the former, forming an orbicular head not half the size of the other; it flowers at the same season, and the flowers are also small and white.

### *Use.*

The leaves and small leafy tops are the parts used; they have a strong flavour of cloves, on which account they are frequently used in highly-seasoned dishes; a few leaves are sometimes used in salads and soups.

### *Propagation and Culture.*

Both sorts are raised from seed, which should be sown on a hot-bed in the middle or last week in March, and when the plants are come up sufficiently high, transplant them out into a warm border of light rich soil about eight inches apart every way. Both sorts may be sown in an open

warm situation, on the natural ground, but such plants always come up late and weak. In transplanting from the hot-bed be particularly careful to take as much soil as possible with the roots, and also that the roots are not injured by taking up, which would give them a severe check in their progress to maturity. They should be watered when planted, and in dry weather, and they will soon take fresh root and produce plenty of tops.

#### *Seed.*

Seed cannot be procured in England only under the most favourable circumstances of situation and season. The best means to obtain good seed is from the seeds-men in any of the large towns.

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## BEAN.

#### *Use.*

The use of the bean is well known to every one that has a spot of ground for a garden, and particularly so to cottagers and farmers, in most parts of the country, who consider a good dish of beans and bacon a very substantial part of a harvest dinner. The seeds are the only parts used, and they are either used in soups or in separate dishes with sauce.

*Varieties.*

There are several varieties of the bean, but the principal sorts planted in British gardens are, the Early Mazagan; it is the hardiest and best flavoured of any of the early sorts, which are, the Early Long-pod, the Early Lisbon, and Dwarf Fan or Cluster; the latter being planted chiefly for curiosity, as it grows little more than half a foot high with its branches spreading out like a fan, and the pods are in clusters. The Sandwich, the Toker, and Spanish, are considered very profitable, as being great bearers, but the Broad Windsor is most esteemed at table; there is also the Kentish Windsor, and Taylor's Windsor, both good beans. Generally speaking, the best bearers are the Early and Sword Long-pods; they rise about three feet high, and are good bearers, having long narrow pods, closely filled with middling-sized oblong seeds. The White-blossom is a bean much esteemed as a good bearer, and proper both for early and late crops, and when eaten young it has but little of the peculiar bean flavour, on which account it is considered much more wholesome. There are several subordinate varieties mentioned in the catalogues, to which those who are desirous to cultivate a variety of this useful plant must refer.

*Times of Sowing or Planting for Early and Successional Crops.*

The time of sowing or planting beans as well as several other vegetables, depends upon the time

the produce is required; for the earliest crop plant the early Mazagan and White-blossom, from the beginning of October to the end of December, (if the weather holds open and fine,) in a warm border, of southern exposure. These plant in rows, two feet or two feet and a half asunder, and about three inches apart in the row and two inches deep. A single drill may be sown very thick, under a south wall, in order to be protected during the winter until spring, when they must be planted out into rows as above. The most successful method is to sow them in a bed of light earth, under a convenient garden-frame laid sloping a little to the sun. Plant the beans all over the bed, an inch apart, and cover them about two inches deep with light earth, and when the plants are come up, and frost approaches, cover the frame down with the lights, giving free air every fine day. Transplant these, as above, in February or March, according as the weather proves fine and mild. In taking up the beans, ease the earth about the roots, and take them up with as much soil as will adhere to the roots, taking off the old beans at the bottom, and also the end of the tap root. By this previous protection the crop will be accelerated about a week or ten days. Although the greatest care has been taken in the protection, the crop has sometimes been destroyed by very severe frost, in which case a crop may be forwarded by sowing them thick in a moderate hot-bed in January or February, or they may be sown in pots and placed in a cucum-

ber frame or stove, (but these are generally kept too warm,) and hardened by degrees to the open air, and afterwards transplanted as above. For full and general crops, begin in the latter end of January (if the weather proves open) to plant the Long-pod and broad Spanish, in some warm quarter of the garden where the soil is light and mellow, and the exposure open, and continue planting the various sorts until May and even June. The space of time betwixt sowings, for successional crops, is guided by this rule:—Sow the following or successive crop when the preceding one begins to appear at the surface of the soil. For the main summer crops, the Sandwich, Toker, broad Spanish, large Long-pod, and Windsor, are considered the most proper. The Windsor is considered the best flavoured, but not so good a bearer as the others. For late crops, to come in in September, the early kinds are most proper, as they are constituted to stand late as well as early.

#### *Quantity of Seed.*

For early crops, one pint will be required for every forty feet of row; and for main crops, one quart will be required for every sixty feet of row; and for late crops about the same as early.

#### *Method of Sowing or Planting, Manual Process, and Subsequent Culture.*

Plant all the early kinds, both for early and late crops, in rows two feet and a half apart, three or

four inches distance in the rows, and two inches deep; and the larger kinds for main crops three feet row from row, five or six inches distant in the row, and four inches deep. Perform the work with a dibble, having a thick blunt end to make a wide aperture for each bean, to admit it down to the bottom without any hollow below. Insert them in double rows, placing them in quincunx order. When one row is thus planted, move the line for the next, and with a rake fill in the holes, leaving the ground smooth and even, and thus proceed forward until the whole is complete. Dig the ground, and plant it as the process goes on, in order to prevent treading the ground, which is a circumstance always to be avoided as much as possible. Some people make a general practice of treading the seed in, (as they call it,) in order to fasten it in the soil; but this I am well convinced they would not do, were they at all acquainted with the use of atmospheric air in promoting germination and vegetation. The beans that are sown in the summer months, and when the ground is dry, may be soaked in soft water a few hours, and it will be an advantage to their germinating; or if sown in drills, as they sometimes are, the ground may be watered previously, and the beans put in directly, and the earth drawn over them while the ground is moist. When the beans are come up, three, four, or five inches, they must be earthed up on both sides the row, and all weeds cleared away. The hoeing must be repeated as frequently as necessary, both



to keep down the weeds and loosen the earth about their roots to encourage the growth. In performing this operation, great care must be taken not to cover the plant with earth, as it would occasion it to rot or fail. If the ground between the rows were stirred with a three-pronged fork, after the hoeing is finished, it would be of considerable advantage to their growth. As soon as the different crops come into full blossom, pinch off the tops in order to accelerate their fruiting, as well as to encourage the pods to be well filled.

#### *Gathering the Crop.*

The beans should be gathered when about half their full size, as at that time they are much better flavoured than when they are older or become black-eyed.

#### *Saving and Gathering Seed.*

Beans for seed should be gathered when the pods are beginning to turn black; the stalks should be pulled up with the beans upon them and placed in the sun till quite dry, after which the pods should be taken off the stems, and stored in a dry place for use. Some people take the seeds from the pods as soon as dry, a practice I cannot approve of, well knowing them to keep much better than when taken out; and the same circumstance may be considered as to most other sorts of seed.

## BORAGE.

This is an annual plant; the lower leaves are oblong and spread on the ground; the flower stem rises about eighteen inches high, and the leaves are set with white bristly hairs. The flowers are of a light blue colour, and have a very pretty appearance for several months together.

### *Use.*

The young and tender tops are used to furnish boiled dishes in summer and autumn, and occasionally as salads. This plant was formerly in high esteem as a cordial herb, for curing a complaint now very prevalent in every part of this country, that is, *sorroe*, and if it is so efficacious, I think it highly proper that no garden should be without so valuable a plant. The most common use to which this plant is applied, is as a garnish.

### *Propagation.*

It is raised from seed sown any time from February to May, &c.; it will grow on almost any ground, or in any situation, and for a bed four feet and a half wide by six long, one ounce of seed will be required; the seed may be sown either broad-cast or in drills, preferring the latter, making the drills ten inches asunder, and when the plants are come up, they must be thinned out

to that distance. This plant will grow when transplanted, yet it always does better when it remains where sown. If the young leafy tops and flowers are the parts in demand, the stem must be permitted to run up.

#### *Saving Seed.*

Those plants which run up first in the spring should be saved for seed, which will ripen early in autumn.

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## RED BEET.

This is a biennial plant, with large oblong succulent leaves of a reddish colour; the roots, when at their full size, are from three to four inches in diameter, and from a foot to eighteen inches in length, and of a deep red colour. The flowers are of a greenish colour, and appear in August.

#### *Use.*

The roots are boiled, sliced, and eaten cold, either by themselves or in salads; they are much used as a pickle, they also form beautiful garnishing.

#### *Varieties.*

There are several varieties of Beet; as the Large-rooted, Long-rooted, Dwarf, Turnip-rooted, Small-red, and Green-topped.

*Propagation.*

This plant delights in a dry, light, and rather sandy loam, and that to a good depth. It is always raised from seed, which should be sown annually, in the last week in March or beginning of April, and not earlier, as great part of the plants would run up to stalk and become useless. The ground on which it is sown should be manured and trenched the preceding year, rather than at the time of sowing, as ground recently manured is subject to canker the roots. The ground should be trenched eighteen inches deep, before sowing, for the long-rooted kinds. The seed may either be sown broad-cast or in drills, a foot apart. Plant the seeds with a dibble, about an inch and a half deep, twelve inches apart, and the same distance between the rows; drop three or four seeds in each hole with a view to leave only one to stand for a crop, and immediately rake the ground even.

*Subsequent Culture.*

When the plants are come up about two inches high they must be thinned out to about twelve inches every way, which will allow them room to rise to a good full size by autumn, at which time they will be fit for use as wanted, and in continuance all winter and spring following. Always make it a rule to "provide for a storm," by taking up a quantity, cutting off their tops, and depositing the roots in sand, under cover, for use,

when hard frosts would fasten them in the ground; some may be still left in the ground to be taken up as wanted. In February or March, those roots kept still in store, may require to be removed in order to check the growth or prevent their running, and keep them good all spring, till May or June. Great care must be taken not to break or injure their roots, as they would bleed much and then become pale coloured; for this reason, on taking off the leaves, an inch of the top should be left on with the solid root.

#### *Saving Seed.*

In order to save seed a few strong roots may be selected and transplanted to some spot where they will not be in danger, when in flower, of impregnation with any other variety. A few strong roots may be left standing in the row, which will shoot up the second year, when their flower stalks should be tied to stakes to prevent their being blown off.

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## BORECOLE.

This is a plant of the Brassica Oleracca tribe there are several sub-varieties, all of which have large open heads, with curled wrinkled leaves, and of a more hardy constitution than most of the other kinds of this genus, which enables it to

stand the winter better, and remain fresh and green during the season. This I shall be rather particular in describing.

*The Green Borecole or Scotch Kale.*

The leaves are of a bright light green colour, deeply lobed, but not very wide. The margins of the leaves are so closely curled or plaited as to widen the margin of the leaf three or four times as much as it would measure if a quarter of an inch of plaiting were taken away all round the edge. The part used is the crown or centre of the plant cut off so as to include the leaves, which do not exceed nine inches in length. It boils very tender, is very sweet and delicate, providing it has been duly exposed to frost.

*Purple Borecole or Brown Kals.*

This differs from the other in being of a deep purple colour, becoming greener as the leaves enlarge, yet the veins and ribs still remain purple. It is more hard but less delicate in flavour than the former, and when boiled the purple colour disappears.

*German Kale, or Brown Kale.* \*

This is a variety of the Green Kale, but differs in its leaves, being more pointed and longer than the others, but their margins not so plaited, yet they are considerably so, which gives the plant a fringed appearance, but not so rich and beautiful

as the true Scotch Kale. The chief difference is, that this affords a greater abundance of sprouts than the other after the crown has been cut. It is disposed to grow tall, consequently ought to be planted earlier than the others, as the produce is in proportion to its length in stem. It is somewhat hardier than the Scotch Kale, has nearly the same taste when mellowed by frost, other wise it is somewhat bitter.

*The Hundred-headed Cabbage.*

This grows three feet or more, and branches out from the stem like a fan tongue-shaped and entire, being narrower than any of the other kinds. This is best known to the agriculturist as being grown chiefly for cattle. It is more hardy than any of the former, but its flavour much inferior.

*The Egyptian Kale.*

This resembles the Swedish Turnip when it is run up to head, has a very thick stalk, and rises about a foot above the ground; the leaves are narrow, generally having at the lower part one strong indentation on each side; they are of a dark green, like those of the Swedish Turnip, and much resemble them in flavour.

*Ragged Jack*

Grows close to the ground, and in spring grows up strong from the sides and crown. The leaves

are very much cut or divided on the edges, which are marked with small obtuse serratures. This is seldom grown any where but in farmers' and cottage gardens.

#### *The Jerusalem Kale*

Very much resembles the preceding, both in habit and growth. The leaves are long, with several indentations, and the edges are serrated, but not deeply, the upper surface being of a purplish colour, and the under one a pale green, and the veins are inclining to a pink colour. It is very hardy, and when growing appears of a dingy purple. This is not considered fit for use until spring, when other greens have ceased to be good.

#### *The Manchester Kale,*

Like the preceding, grows low, but more close and compact, with leaves somewhat like the German Kale, having the same sort of fringe on its margin. The whole plant appears purple before it begins to shoot in spring, and equally valuable with any of the Borecoles, being very hardy, and remains late in the spring before it comes into flower; is very sweet and well flavoured. There are several other varieties.

#### *Propagation.*

All the sorts are propagated by seed, which may be sown any time from the beginning of February to the beginning of May, except the



Manchester Kale, which should be sown the first week in August, and transplanted out in September for the latest spring crop.

*Subsequent Culture.*

When the plants are come up about an inch and a half high, the strongest plants must be drawn out of the seed bed and pricked out into other beds, five or six inches apart, well watered, and must remain in this situation four or five weeks, when they will be sufficiently strong for finally transplanting in May, and thence to August. In transplanting, always be guided by the weather rather than season, taking advantage of showers, if possible. These should be planted in open compartments, in rows two feet and a half asunder, for the first summer planting, and the latter crops two feet, and so on; setting the rows nearer each other as the season advances. They must be watered immediately after planting, to settle the earth to the roots, and the watering continued in dry weather. In order to employ land to the best advantage, plant between the rows of early beans and potatoes, which are ready to be cleared from the ground by the time the plants require to be hoed up. When the beans and potatoes are ripe, gather the crop, and dig over the spaces betwixt the plants, that is, where the former crop stood, and place the soil about the stems as much as possible. This practice is found to answer well, by which means

an extra crop is obtained. The ground betwixt the rows should be hoed over once or twice, in order to destroy the weeds, as well as to draw the earth about their stems, to encourage their growth in the production of large full heads in the autumn and winter months. In October, take the plants out of the ground, being careful to preserve as much earth about the roots as possible, and taking off all the lower leaves, immediately replant them in a sloping direction, about eighteen inches distance, covering their stems quite to the leaves; by this means the crowns of the plants will be close to the ground, and when snow falls they will sooner be covered from the severity of the frost, and thus be preserved over the winter, until spring. When all danger of frost is over, set them erect, by taking hold of their heads and drawing them straight, and fastening them with the foot; they will afterwards sprout out from top to bottom of the stem.

#### *Gathering the Crop.*

These will be fit to gather as soon as they have been frozen, and the heart is the part to be gathered.

#### *Saving Seed*

The seed of more than one sort seldom can be saved the same year, in the same garden, on account of accidental impregnation, by bees, the wind, &c. as no plant whatever is more addicted

to sport than the whole of the Brassica tribe. The seed will, however, keep good several years; therefore, if the garden be large, one or two sorts may be saved every year in rotation. In autumn or spring select some of the best and truest plants, and place them as far distant as the garden and other circumstances will allow. All loose or ragged leaves should be cleared away, and the plant inserted to the head, and at about double the distance they stood before in the plantation. The seed will be ripe in August, when it may be gathered, dried, and thrashed out, and after being exposed to the air a few days may be put up in bags for use.

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## BRUSSELS' SPROUTS.

This plant produces an elongated stem, from which are produced small heads resembling cabbages in miniature, each being from one to two inches in diameter, the whole ranged spirally along the stem, the main leaves of which drop off early. The top of the plant resembles the savoy when planted late. It has a small heart, of little value. The sprouts are used as winter greens.

### *Propagation.*

This plant is raised from seed, which should be sown from the end of March to the end of April.

on an open border, having a good aspect. They require the same treatment in every respect as the Borecole, only need not to be planted so wide, neither betwixt nor in the rows. The sprouts may be gathered at any time after they are large enough. The seed is procured by the same means as all the others of the cabbage tribe.

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## BROCOLI.

This, as well as the two former, is a sub-variety of the *Brassica Oleracea* tribe. There are of this a considerable variety, all of which have no doubt arisen from the White and Purple Brocoli, (mentioned by Miller,) either by accidental or premeditated impregnation; and from this circumstance new sorts are continually coming into notice. The common characteristic of Brocoli is, its hardier constitution to stand the winter, and the colour of the flower and leaves. This plant is considered more palatable in proportion as they approach to a pale or white colour; consequently the white kinds are preferable to the purple ones, only are not so hardy to stand the winter. Shall here enumerate such as are most commonly grown in British gardens, almost every one of which requires different treatment in its culture.

*Purple Cape Brocoli,*

Which has a close compact head, of a beautiful purple colour; the leaves are nearly entire, erect, concave, lobed at bottom, and much waved regularly surrounding the head; the midrib and veins are stained with purple, which declares it to be the true sort; in growing, the head is exposed to view, not very large, and as it enlarges, the projecting part of the flower shows a greenish-white mixed with the purple colour; when boiled, the whole flower becomes green.

*Propagation and Culture.*

This must be sown according to the season it is required to come to table; if in August and September, the seed must be sown in the middle of May. If they are to come to table early in spring, the seed must be sown in July and August. When desired at table in the months of June and July, the seed must be sown in September, and the plants preserved through the winter in frames, as cauliflowers. By good management, this sort may be had at table every day nine months out of the twelve. It is too tender to depend upon to stand the winter. It grows from a foot to a foot and a half high, and should be planted about two feet apart every way.

The seed must be sown very thin, in a bed of light earth; and when the plants have from eight to ten leaves, they must be finally planted out where they are to remain, in rows, two feet apart,

and two feet between the plants in the row. It delights in a sandy loam, previously prepared by digging and manuring; the manure should be frequently turned over before applied, and every sort of grub picked out; otherwise the roots of the plants may suffer by them. The ground is to be kept constantly clean by hoeing, weeding, &c. and the loose soil drawn up close round the stems of the plants.

The second crop must be treated exactly as the first, only, that if any remain uncut that are in perfection when the frost approaches, they should be taken up with as much soil adhering to their roots as possible, and put in flower pots, large enough to hold the roots, which must be fastened in the pot, and a little water given to them. In this state they must be placed in a shed, and occasionally covered with mats, if danger of frost be apprehended; they will thus keep good several weeks.

The third crop must be sown in September, and the plants preserved through the winter in frames, as cauliflowers. (See that article.)

#### *Green Cape Brocoli*

Differs very little from the preceding, except in the colour, and the heads as well as the whole plant being in general larger; the leaves are long and narrow, much resembling those of the cauliflower, they are but little waved, consequently have a smooth appearance. The head, somewhat

resembling the cauliflower, is of a greenish-white colour, and is usually covered with the leaves. These two sorts have a strong tendency to degenerate and run much into each other, yet they are quite distinct, and the greatest possible care should be taken in saving the seed, that the plants are true, and all others kept from running into seed near them, which is a circumstance frequently happening, and that through neglect in not pulling other crops of the different varieties up when over, before they run into seed. This remark may be applied to all other sorts.

#### *Grange's Early Cauliflower Brocoli*

The leaves are broader and shorter than those of the Green Cape, they are lobed at bottom, but not much waved; they have long foot stalks; the veins and mid-rib are a whitish-green, and the head quite white.

#### *Propagation and Culture.*

This sort should be sown at three different times from the beginning of May to the end of June, and afterwards treated as the others above mentioned. It will produce full heads from Michaelmas to Christmas.

#### *Green Close-headed Winter Brocoli.*

This is a new and much esteemed sort, apparently a seedling from the Green Cape, as it succeeds it in coming to use. The plants are dwarf,

leaves numerous, spreading, moderately indented, much waved, and large, and the veins are white; the flower much resembles the Green Cape in appearance, and does not rise to any great height.

#### *Propagation and Culture.*

This is esteemed the more on account of its continuing to bear throughout the winter. The time for sowing the seed is in May, and when the plants are grown sufficiently large, let them be planted from one and a half to two feet distant, both between the rows and plants; and if the winter proves favourable, they will be in use from the beginning of November to the end of February.

#### *Early Purple Brocoli.*

This is also a much esteemed kind, and if true, is of a deep purple colour, and close-headed at first, but it afterwards branches, and is apt to become green and too much branched, especially in light land. The plants grow strong, and from two to three feet high; the leaves are of a purplish green colour, much indented, spread out wide, but not long, though the stalks are so; and the head is quite open from the leaves.

#### *Propagation and Culture.*

The seed should be sown in April, and it will produce heads in November, and continue in mild



seasons, throughout the winter. If sown in June, it will produce abundance of heads and sprouts in March and April. It should be planted three feet apart every way.

#### *Early White Brocoli.*

The heads of this sort are a clear white, and of close texture; the leaves erect, concave, light green, and nearly entire.

#### *Propagation and Culture.*

The seeds of this sort should be sown in February, or beginning of March, on a slight hot-bed, and when the plants are about three inches high, they must be planted out into beds of light earth, three or four inches apart, and defended by a mat covering from frost and cold nights. In April, they may be planted out in rows two and a half feet apart, and two feet distant in rows, and well supplied with water in dry weather; and they will produce fine large heads from the beginning of November to Christmas, if the season proves mild.

#### *Dwarf Brown Close-headed Brocoli.*

From its appearance it is thought to be a seedling from the Sulphur-coloured Brocoli, yet it differs from it by being fit for use earlier, as well as the shape and colour of the head; the leaves are much shorter and broader than the Sulphur-coloured, not much waved, dark green, with white veins; they grow upright, and do not cover

the head at all. When the crowns first appear they are green, and soon change to large handsome brown heads.

*Propagation and Culture.*

This should be sown in the middle of April, and it will come into perfection the March and April following. The plants should be set two feet apart every way.

*Tall Large-headed Purple Brocoli.*

This sort grows three feet high, and produces large purple heads.

*Propagation and Culture.*

This should be sown towards the end of March, and it will be found useful in the March and April following. These plants should be planted three feet asunder every way.

*Cream-coloured Brocoli.*

This sort exceeds all others in size; it is of a cream colour, and has a very firm and compact head; it has large broad leaves with white veins, they spread widely, but the small centre leaves cover the flower.

*Propagation and Culture.*

The seeds of this sort should be sown in the middle of April, and the plants will come to perfection in the February and March following.

It grows low, yet the plants should be two feet and a half or three feet asunder.

*Sulphur-coloured Brocoli.*

This is a valuable sort, and very hardy; it produces a fine compact, conical, sulphur-coloured head, some of which is slightly tinged with purple. The leaves are much indented, and of a bluish-grey colour, and has long foot stalks.

*Propagation and Culture.*

This should be sown in April, and it will be in perfection that time twelve months. Two feet distance will be sufficient distance for the plant to grow well.

*Spring White, or Cauliflower Brocoli.*

This sort grows strong and robust; has large flat narrow leaves, with thick veins. The leaves encompass the head so close as nearly to render it invisible when fit to cut, which is a circumstance much in its favour in frosty nights, common in spring.

*Propagation and Culture.*

The seed should be sown in March, and if finally planted on good ground, will produce fine large white heads the following year, in March and April.

*Late Dwarf Close-headed Purple Brocoli.*

This is the latest Purple Brocoli. The plants seldom rise above a foot high; the flower at first

shows small and green, but soon changes and enlarges, and forms a close conical purple head. The leaves are short, small, and of a dark green colour, with white veins deeply indented, and forming a regular radius round the flower, which gives the whole plant a beautiful appearance.

#### *Propagation and Culture.*

The seed should be sown in April, and they will be fit for use in April and May, in the following year. The plants must stand from one foot and a half to two feet distant every way.

#### *Latest Green, or Siberian Brocoli.*

This is the latest, and most hardy of all the Brocolis, as the severest winter will not destroy it; the leaves are narrow, long, and indented, with a tinge of purple colour in the stems.

The seed should be sown in the middle or end of April, and they will be ready in the following May. Two feet is sufficient distance for the plants to stand.

#### *Propagation and general Culture of all the varieties mentioned.*

All the sorts are propagated by seed, and for a bed four feet wide by twenty long, one ounce of seed will be required.

The seed bed should be rich mould, well dug, and the seed sown immediately after, and before the soil becomes dry or any rain falls, as the seed

never goes in so well after the ground has been dug any time. The seed should be sown thin, and the beds covered with mats, in order to keep them regularly moist until the plants are come up, when the covering must be removed, and the plants watered occasionally, as the season proves dry or moist. Should the weather prove moist at the time the plants are ready to plant out, they should be planted into their final situation at first, rather than into beds to be again removed, as that frequently causes them to produce their heads prematurely, in which case they would be inferior both in size and quality. This plant is subject to a disease called the club, which is caused by an insect insinuating itself into the roots. This insect is frequently found in old-tilled land, and the best method, in order to clear the ground, is to trench it two spades deep, turning the top or old surface to the bottom, and the bottom spit to the top, so that the ground gains a new surface, and in all probability, the insect will be buried with the old one.

The Brocoli delights in a loamy soil, and in such it is generally found to come more true in kind, and is hardier if planted without dung.

Dry soap-ashes dug into the ground in large quantities, is said to be a good preservative against the club, as well as a good manure.

It is evident the Brocoli grows larger and finer on the ground where they are first planted, than when they are taken up and replanted; notwithstanding all this, it is better to have less than

trust to much, and get none at all; therefore take up some of the latter sorts in the beginning of November, with as much soil to their roots as possible, and lay them in the ground sloping towards the north, with their heads a few inches above ground, and about eighteen inches distant. The crown of the plant, by being thus laid low, will soon be covered with snow and protected thereby from severe frosts; it also becomes tougher in fibre, and hardier, by the check received in its last removal.

In the operation of cutting Brocoli, five or six inches must be retained along with the head. After cutting, several of the sorts produce fine sprouts from the stems, which should be gathered when ready, and are, when boiled, but little inferior to Asparagus.

#### *To save Seed.*

In order to save seed, some of the largest, best formed, and finest heads of each sort should be selected, and the under leaves taken off, and then planted with their heads close to the ground. The Sulphur Brocoli is found the most particular to procure good seed from.

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#### CABBAGE. (*White.*)

This plant is too well known to every person, and its use too universal to render any descrip-

tion necessary. It produces from compact heads in different soils, some of which rise from three or four to twelve or fifteen inches in diameter, and from two to twelve or twenty pounds weight.

### *Varieties.*

The varieties of this plant are numerous. The principal sorts chiefly grown, are the Small Early Dwarf, Early Dwarf York, Large Early York, Early Dwarf Sugar-loaf, Large Sugar-loaf, East Ham, Early Battersea, Early Imperial, Antwerp, Russian, Early London Hollow, Large Hollow Sugar-loaf, Large Oblong Hollow, Large Round Winter, Great Drum-head Flat-topped, and Great Round Scotch.

### *Estimate of Sorts and Time of Sowing.*

For the first early crops in May and June, the Early Dwarf, York, East Ham, and Early Dwarf Sugar-loaf, are the most proper sorts.

A nice attention must be paid to the time of sowing, which should be between the sixth and the twelfth of August, and neither sooner nor later; for if sooner, many of the plants will run up to seed before they are any size, and if sown later, they will not acquire sufficient strength to enable them to stand over the winter so well as if advanced a little in growth.

Should it prove to be the case that the winter should destroy a greater part of the autumn sown plants, as it frequently does, a succession should

be sown in the first week in February, if the weather permit. The same sorts may be sown at this season, as in August. If a few were raised on a slight hot-bed it would be of considerable advantage. Some seed of the middle-sized kinds, as the Large Sugar-loaf, Large York, Battersea, Imperial, Antwerp, and Russian, should be sown for successional summer and autumn crops. Some of the larger later kinds, as the Large Hollow Sugar-loaf, Oblong Hollow, Long-sided Hollow, should be sown at the same time for cabbaging from September to Christmas. This last sowing should be made in May or beginning of June.

*Propagation, Sowing, and Culture of the Seed-bed.*

All the sorts are propagated from seed annually, and for a bed of the earliest kind, four feet wide and twenty long, two ounces of seed will be required, and for the larger and later kinds, one ounce of seed will be sufficient for a bed the same size.

The soil most suitable for seed-beds, is light, but not very rich loam, and the situation open and free. Each sort should be sown separate, and as regular as possible, and the seed raked evenly in, and if the weather is hot and dry, give a little water, and cover the ground with mats, until the plants are come up, in order to keep the soil moist, as well as the birds from gathering up the seeds. The mats must be taken off as soon



as the plants are fully up, otherwise they would be drawn up long-shanked and weak. Moderate watering should not be neglected.

*Transplanting into Nursery Beds, or Final Situation, and Subsequent Culture.*

When the plants have three or four leaves they must be transplanted, either into nursery beds of good rich soil, four or five inches every way, and immediately watered to settle the soil to the roots, or into their final situation, which is decidedly the best, when an early crop is desired. Plant each sort separate, in good rich mellow ground, well open and exposed to the sun, in rows eighteen inches apart, and the same distance in the rows; let them be inserted with a dibble, setting the stems quite down to the leaves, and close the soil quite fast about each plant, a circumstance too frequently neglected; for, if they are not fast, and the ground is subject to slugs or snails, as most land is more or less, such plants are sure to be attacked, and this generally in the stem, just under the surface. They must be watered frequently until they have got good hold of the ground. Final planting may be deferred till spring, but not later, for if the plants have begun to grow, and afterwards receive a check by removal, they are almost sure to run to seed before they attain near a cabbage state; and this has been found to be one great reason of there being so many runners (as they

are called) as there frequently are. The later and larger sorts should be treated exactly the same as above; only that they must be planted at a greater distance, from two to three feet, according to the size of the sort. They should be frequently looked over, and if any have failed or are running to seed, they must be pulled up, and the deficiencies made good with fresh plants. As soon as the plants are four or five inches high, they must have the soil drawn up about the stems, which will very much assist their growth, at the same time clearing all weeds off the ground. Dead, sickly leaves are more or less to be found at the base of almost every plant; these should be left untouched, as the slugs will feed upon them, in preference to that part of the plant in health, thus the plants frequently escape their depredation.

### *Colerworts*

Are sometimes in particular request for several of the autumn, winter, and spring months, and to have a regular supply of these, three sowings should be made; the first in the middle of June, the second in the first week in July, and a third in the last. The process of sowing should be conducted upon the same principles as for the others, and when they are three or four inches high, they must be transplanted where they are finally to stand, into rows twelve inches asunder, and the same distance in the row. Water must be given immediately after planting, and be con-

tinued frequently, until they get hold of the ground; after which, they must be treated as the others, until gathered.

### *Gathering the Crop.*

In taking the crop, as soon as the head is cut, the shoots should be immediately pulled up, and taken to the refuse heap, in order to clear the ground of a slovenly appearance, as well as an incumbrance. It must be understood, that it is the stumps of the coleworts that are here directed to be taken away, and not of main spring crop, as those must always be left, only taking their injured leaves close off. After the whole crop is gathered, all decayed leaves, weeds, &c. must be cleared off, and the ground between the rows forked over, throwing the earth well up to the stems, and if a little manure were dug in at the same time, it would be of great advantage. By these means the stems will push out in autumn, and produce very fine sprouts, but little inferior to young cabbages, in January, February, and March. It is sometimes thought necessary to preserve cabbages all a winter; this may be done by taking up the plants and laying them down on their sides with their heads towards the north, and as low in the soil as possible; thus they will soon be covered by the snow, which will preserve them in severe frost. They may be taken up with their roots entire, and as much soil as will adhere thereto, and placed in a dry room or

shed, where they will keep several weeks without the least injury.

*To save Seed.*

The raising of seed of the different sorts is a difficult point, as it is well known to every person acquainted with gardening, that no plant is more liable to be spoiled by cross breeds than the cabbage tribe. Not more than one sort should be saved the same year in the same garden, and as the seed will keep good several years, a sufficient quantity should be raised of each sort once in seven, eight, or ten years. Early in autumn, some of the handsomest cabbages should be dug up and sunk in the ground to the head, and in the next spring, they will throw up a flower stem which will produce abundance of seed. A few of the soundest and healthiest of the stalks from which the cabbages have been cut, and that have got good sprouts, will do equally well. To have spring cabbages earlier than usual of any particular kind, select the middle flower-stem from amongst the rest, and keep the seed by itself, which will produce cabbages a fortnight sooner than seed from the lateral flower-stems, although sown at the same time or even later.

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CABBAGE. (*Red.*)

This differeth from the common cabbage in nothing but colour, which is a purplish or brownish red.

The red cabbage is used chiefly for pickling, and in my opinion the dwarf red sort makes one of the most beautiful pickles that can be presented at table. All the sorts are sometimes shredded down in winter salads like red beet root.

There are three varieties of red cabbage chiefly grown, viz. the Large Red, the Dwarf Red, and Aberdeen Red.

*The Propagation, Sowing, and Subsequent Culture,*

Are, in all respects, exactly the same as for the white cabbage, excepting that the heads are not used in an open form like coleworts, but are allowed to stand till they have formed close firm heads. The seed should be sown in August, for a crop to stand the winter, and come in at the end of the following summer and till autumn.

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## CAULIFLOWER.

### *Use.*

This is the most delicate and most esteemed of all this tribe. The flower bud forms a firm, close head, of a white delicate colour, and being wrapped up in a clean linen cloth, and boiled, is served up at table as a very delicate dish, and as such is universally considered.

*Varieties.*

Of this there are several varieties, or sub-varieties, but the principal sorts cultivated are the Early, for the first early crops; the Large, or later for principal early and main crops, and the Red Cauliflower; the stalk of the head of this is of a reddish or purple colour, and considered more hardy than the others, and more suitable for an early crop.

*Propagation.*

The cauliflower is raised from seed, which should be sown on a light but not over rich soil; and for a bed ten feet long, by four wide, half an ounce of seed will be required.

*Times of Sowing for the different Crops.*

Sow this seed at three different times in the year, (viz.) for the first or early and general summer crop, make a considerable sowing in the last week in August, and do not transplant them out until the middle or end of November, or just before hard frost is apprehended. The situation should be under a wall with a south aspect, and the ground not over rich; and if they take hold before frost comes, they will stand the winter without any other additional shelter than the wall. Plants thus treated always make much the largest and best cauliflowers during the summer, though they certainly do not come to perfection quite so soon. Cauliflower plants are fre-

quently killed with kindness or too much attention. When thus treated they are very tenacious of life. To have them in a little earlier two methods may be used; one is to plant some plants in small pots, and place them under a frame, or in some convenient part of a vinery or other glazed house, until the middle of March, when they may be taken out of the pots, and planted with the soil attached, into the open ground, and covered for a short time at nights with hand or bell glasses. The distance at which the plants should stand, is two and a half feet every way. The second method is to select the seed when ripe, taking that produced by the flower stem and sowing it by itself, and the plants from this seed will come into flower a fortnight sooner than those produced from seed of the laterals. This, however absurd it may appear, is absolutely the case, which has been proved by repeated trials, and this may be considered the case with the whole of the Brassica tribe; even with the turnip it is the case. This crop will commence flowering in the end of May, and be in full perfection in June.

For a late crop to succeed the early or main summer crops, sow some of the large or later sort in the latter end of February or beginning of March, under a frame or hand glasses, on a border of as light rich earth as possible, and when the young plants are big enough to plant out, that is, when they have got leaves an inch broad, prick them out into other beds of the same de-

scription, and at the distance of three inches every way; here they must stand until the end of April or beginning of May, at which time they are strong enough to remove into their final situation in the open garden. If the weather should prove unfavourable at the time of sowing, as may be expected at this early season, a moderate hot bed should be prepared, and after setting on the frames, the bed should be covered four or five inches thick with as light rich soil as possible, and the seed sown pretty thick, and when the plants are come up large enough to transplant, prick them out under another frame, but without heat, to gain strength for the open air. The cauliflowers raised from this sowing, will be in perfection in the end of July, and beginning of August.

For a third and last crop, sow some of the same sort of seed as for the last crop, in the last week in May, also on a bed of light rich earth, and in a warm situation, and when they are big enough, prick them out as before. This is commonly called the Michaelmas crop, and will begin to produce their heads in the latter end of October, and will hold out or continue till Christmas, if open mild weather follows.

#### *Planting.*

Prepare the ground on which the plants are to grow upon by manuring and digging several times over, in order that the manure and soil may become incorporated, as the richer the



ground is, the finer and larger are the cauliflowers, consequently the ground cannot be too rich. Commence planting by beginning at one end of the ground, and dig over as much as will serve for one row, then stretch a line across, and draw a drill with a hoe about four inches deep, in which insert the plants, at two and a half feet distance, and give them a good watering to settle the soil to the roots, and then proceed for another row in the same way, until the whole be complete, after which they must have a liberal supply of water, until they have got good hold of the ground.

The ground for early crops should be open and well exposed to the sun; but all crops planted after the first week in May should be planted in a shady border.

#### *Subsequent Culture.*

After each of the respective crops are finally planted out, the ground about the plants must be kept hoed in order to cut down the weeds, and at the same time to draw some soil to the stems of the plants. When the soil has been drawn up to the plants some little time, fork the ground between the rows lightly over, which will be of considerable advantage to their growth. All crops must be liberally supplied with water in dry weather; those out of flower twice a week, and those in, every other day, which will contribute to their producing very large heads. As the flower heads appear, the larger leaves should

be broken down over them to defend them from the sun and rain, as well as to preserve them in white and close perfection.

In respect to the *hand-glass division*; some gardeners, towards the end of October, transplant a quantity finally into rich ground, which has been well dunged, under hand-glasses in rows three feet and a half asunder, and three feet apart in the rows, placing two or three plants centrally under each glass three or four inches asunder, with the design of retaining only one or two of the best in the spring. A better method is, to plant them in small pots of not very rich soil, and plunge the pots into the ground, two or three under the centre of each glass, and give a moderate watering. Allow the leaves of the plants to get dry, and then put on the glasses close, until they have taken root, which may be seen in a week or ten days by their showing a renewed growth, after which, tilt up the glasses to admit free air on the warmest side, raising them two or three inches according as the weather is. Continue the glasses all the winter, but tilt up the south side every day in mild weather, in order to strengthen and harden the plants, and in very fine weather take the glasses quite off a few hours in the middle of the day, especially if the plants appear to draw or get too forward in growth, but put them on early in the afternoon, and always keep them on at night in frosty weather, until the end of March, or beginning of April, admitting air more freely as the fine weather advances,

and when the weather is very mild and dripping, frequently take the glasses quite off in order to give a shower of rain.

In the beginning of April take up all the pots, and turning the plants carefully out, with the balls entire, place them in the holes where the pots came out, and close the earth about them, placing one plant under each glass, give them a little water, and when the leaves are a little dry shut the glasses close down over them, until they begin to grow, when they must have fresh air for a week, the glasses may then be taken quite away, and the earth drawn well about the stems, which will greatly encourage them. Water must not be withheld in dry weather, but liberally supplied.

#### *Preserving Cauliflowers through the Winter.*

There are various methods for preserving cauliflowers through winter, but the one most approved, is to take the plants up a day or two before they are full grown, and when they are perfectly dry, take off all the large under leaves, place them in rows in a dry shed, and cover the roots of each row with dry earth, laying them sideways with the crown or head of the second row close to the under leaves of the first, and so on till the whole is complete; thus they may be kept in a good state from the beginning of November to the end of January. It may be necessary to cover the whole with a mat in very rigorous frosts, but not generally so, and care

must also be taken to clear away all decayed leaves as they appear.

*To save Seed.*

Mark out some of the prime plants of the early and main crop when the heads are in full perfection, as those of the late sowing will not ripen seed effectually. The seed will ripen in September, when it must be tended, otherwise the birds will destroy a great part of it, and the branches must be gathered as the seed ripens, and laid elevated from the ground, in an airy situation, to dry and harden to full perfection, after which it must be rubbed out and cleaned from the husky parts, and spread on a cloth to dry equally, when it may be wrapped up and put by for use the following spring and summer.

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## CAPSICUM

There are three species of this genus in cultivation, viz. the *Capsicum Annum*, or Annual Capsicum, and although a native of India, is so far naturalized to this country, as to endure the open air of our summer. It has a branching stem about two feet high, producing long, linear, dark-green leaves. It produces its flowers, which are white, in June and July, and are succeeded by pods of various forms, as long-podded, short-pod-

ded, round short-podded, and heart-podded, all of which are red and yellow.—The *Capsicum Cerasiforme* or Cherry Pepper. This is an annual plant, and will stand our summers, although a native of the West Indies. It has the same general character of foliage as the former, and produces its flowers from June to September. The pods are small, generally cherry-shaped, sometimes heart-shaped, bell-shaped, or angular, and in colour red or yellow.—*Capsicum Grossum*, or Bell Pepper. This is also a native of the Indies, is a perennial plant, and will bear the open air in summer, but requires a place in the stove during the winter and spring months.

#### *Use.*

The green pods of all the varieties are used for pickling, and for which purpose the last mentioned species is considered much more superior than the others, on account of its skin being thick, pulpy, and tender.

#### *Propagation.*

All the species of *Capsicum* are propagated by seed. Sow the annual sorts in the end of March or beginning of April, in a moderate hot bed under a frame. Two pods of seed will be a sufficient quantity of each sort of its variety; after it is sown it should be covered a quarter of an inch deep with a little fine soil. When the plants are big enough to hold betwixt the finger and thumb,

transplant them into a new but very moderate hot-bed to forward them for final transplanting, in the beginning of June, into the open ground, in beds of light rich earth, at from fifteen to eighteen inches apart, and well watered. Thus treated, they will come into flower in July or August, and produce plenty of pods in August and September. Should there not be the convenience of a hot-bed or stove, the sowing must be deferred until warm weather in May, when they may be sown on a bed of light earth under hand-glasses; and when the plants are come up, they must have plenty of air in the day time, but must be covered close down at night, until danger of frost is quite over, and at the end of June transplant them into beds as before.

. *To save Seed.*

Preserve a few of the handsomest and largest first-formed pods for seed, which will ripen in autumn, after which they must be gathered and hung up to dry, and the seed must be left in the pods till spring as wanted for sowing.

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## CARROT.

*Use.*

This is a hardy biennial plant, too well known to require any description. It is used in soups and stews, and also forms a vegetable dish.

*Varieties.*

There are several varieties mentioned in the Horticultural Transactions, as the Early Red; Common Early and Long Horn; White Yellow; Long Yellow; Long Orange; Long Red; Purple; and the Attringham, originally from Cheshire.

*Soil.*

The carrot delights most in a deep light mellow soil, of a sandy nature, which should be well and deeply dug, in order to break the lumpy parts, and particularly for the orange and red sorts, which are longer rooted, consequently require a deeper soil proportionally than the horn.

*Propagation.*

The carrot is raised from seed, and to have early summer crops, sow in the beginning of February on a warm border, but for a main crop, begin in the end of the month, or beginning of April, or as the weather may prove favourable; the proper sort for this sowing is the orange. Successive sowings should be made of the different sorts until the latter end of April, for main crops. A little seed should be sown at two different times in May, for carrots to draw young late in summer. Another sowing may be made in the beginning of July, for a later crop to draw in autumn. Lastly, another sowing may be made

in the beginning of August, for a young crop to stand the winter, and draw off early in the spring.

### *Process in Sowing.*

The seeds have long forked hairs, by which they adhere close together, and in order to sow them regular, they must be mixed with sand and well rubbed to separate them previous to sowing. A calm day should be chosen for sowing this seed, as it is very light, and consequently could not otherwise be sown to any certainty. Carrot seed should be proved previous to sowing, by placing a little in a flower-pot and setting it either in a hot-bed or hot-house: by this neglect crops frequently fail, as this seed is more subject to be bad than many other sorts. One ounce of seed is required to sow a bed thirty feet long by four and a half wide. It may either be sown broad cast, or in drills eight inches apart.

### *Subsequent Culture.*

When the plants are come up two or three inches, they must be thinned and cleared from weeds, setting the plants five or six inches asunder, for the early crop to draw off while young, but for later or main crops, intended for full size, the plants must be left seven or eight inches apart. The whole must be kept perfectly clear from weeds, at all times. Some of the carrots will be fit to draw by the end of June, and will be a good size in July, and of full growth by the



end of October, when they may be taken up, and stored for winter use. After they are taken up, the tops must be cut off, but not too close; they must be neatly stacked up, laying them heads and tails alternately, and the whole well packed with sand, as the operation goes on.

*To save Seed.*

Plant some of the largest and best roots, early in spring, at eighteen inches, or two feet apart every way, inserting the crown about two inches below the surface, they will soon be up, and produce ripe seed in autumn, when they should be gathered, taking only three or four of the main umbels, as from the seed of these the most vigorous plants are produced.

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CELERY.

This is a hardy biennial plant, with wedge-shaped leaves, and furrowed stalk, producing greenish coloured flowers.

*Use.*

The leaf-stalks, after being blanched in the manner hereafter directed, are used raw, as a salad, from August to April. They are also stewed, and put into soups.

*Varieties.*

The varieties chiefly grown are the Common Upright Italian; the Large Hollow Upright; the Solid-stalked Upright; the Large Red-stalked Upright, and the Knot Celleric of the Germans. The first three sorts are best for general culture. The Red and Knot Celleric are rather coarse for salads, but being more hardy to stand the winter, are better adapted for spring use, and suit well for soups and stews.

*Propagation.*

All the sorts are propagated from seed, which should be sown on rich, and rather moist soil; and for a bed four feet and a half wide, by ten long, half an ounce of seed will be quite sufficient.

*Sowing and Planting.*

For the main summer, autumn, and winter crops, make the principal sowing from the middle of March to the first of April. Sow in soil as above, and in dry weather give moderate watering, both before and after the plants are come up. When the plants are big enough to hold between the finger and thumb, prick them out into nursery beds at three inches distance every way. Always make these beds very rich, by manuring with good rotten dung. Supply the plants well with water, and when they are from six to twelve inches high, plant them into

trenches for blanching. For this purpose, and a month previous to planting, allot an open compartment, and form it into trenches eighteen inches wide, and six inches deep, at five feet distance from each other, measuring from the centre of each trench. Fill the trenches with good well rotted manure, and that from an old hot-bed is the best. Dig the dung into the trenches, working the soil and it well together. This digging repeat two or three times, in order to incorporate the dung and soil the better. At the time of planting apply a little more dung of the same sort, and dig it in, and give it a good watering; but do not plant till the evening. In performing the operation of planting, first take up the plants from the nursery or seed-bed, and trim them, stripping off all straggling leaves and side shoots close to the root, but never cut the tops, the leaves being very essential to the growth and well-doing of the plants. Trim the roots, cut off the tap-root, which will cause them to form a brush of fibres, and thus preventing them striking deep into the ground, the plant will never run to seed before the following spring. As soon as the plants are thus dressed, immerse the roots in water while out of ground. Plant a single row at the bottom of each trench, setting the plants five or six inches apart, and give them a good watering immediately, and repeat it in dry weather until the plants show a renewed growth, and occasionally continued until the plants are ready to be earthed up, but not afterwards. Continue

planting out a monthly succession, from June to September, and thus provide for a supply from July to the following spring. . .

### *Subsequent Culture.*

\* As the plants advance from eight, or ten, to twenty inches, or two feet, earth them up, (commonly called landing up,) but the two first mouldings must be done very sparingly, being careful not to loaden the plants with earth too much at first, only drawing a little mould on a ridge on each side the row, leaving the plants as it were in a drill, and thus they will receive the full benefit of the rain and waterings; and when the plants are strong enough to bear six inches of mould, land them up to that height, being careful that no earth falls into the heart of the plant; to prevent which, provide long strands of bass matting, tied together, till of sufficient length for one entire row. Fasten one end of this bass to a small stake, put down at the end of the row for the purpose, and then, beginning with the first plant, give it one twist round the top of the leaves, and then pass it to the next, and so on to the end of the row, where it must again be fastened, and then proceed to mould it up with a spade, being careful to leave bases enough to hold the mass of mould which will be used in the ridge, still keeping the plants in a hollow, as before directed. The process being thus ended, the bass must be unravelled, beginning at the end where left off. The autumn and winter crop

having attained their full growth, give them a final landing up near the tops, which will increase the length of the blanched part, and be a means of protecting them more effectually from severe frost during winter. Always choose a dry day for this work, and also when the plants are perfectly dry, for if water should be lodged in the bottoms of the leaves, it cannot easily escape after being landed up, consequently the plant would be in imminent danger of becoming rotten, and the crop lost.

*Gathering and Preserving for Winter Use.*

On the approach of winter, and in order to "provide against the storm," take up a part of the crop, and without cutting off the tops lay them in a dry place, as in the back shed of the hot-house, and cover the roots with dry sand or earth, leaving the tops out. In order to preserve those left in the ground, lay some long dry litter over the tops, but remove it when the weather is mild and fine.

*Sowing for a late Crop.*

In order to have a very late crop to stand till May, in the following year, make a small sowing in the beginning of the preceding May, and when the plants are big enough, or five or six weeks old, prick them out into intermediate beds, four inches apart, till September, when they must be planted out into moderate trenches, as for the main crops, only not quite so deep, and as they

advance in growth, earth them up a little in winter, and finally in spring, in March and April. These will require protection during frost, in winter.

#### *Taking the Crop.*

In taking the crop, dig close down to the roots, then, inserting the spade under the roots, loosen them, and taking hold of the tops with the other hand, raise them up without breaking the stalks.

#### *Saving Seed.*

In order to save seed, either leave some of the established plants where growing, thinning them out to two feet distant in the rows, or in the spring take up a sufficient number of plants, cut off the tops, and plant them in the ground, at the above distance.

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## CELERIAC.

#### *Use.*

This is a variety of celery commonly called Turnip-rooted Celery; the root of which is the only part used, and is excellent in soups, in which slices of it are used as ingredients, and easily impart their flavour. It is also used as a salad, the roots and rind being cut or pared off; they are put into cold water, and set on the fire, and boil-

ed till a fork will readily pass through them, after which they must be taken off, and when cold, they are to be eaten with oil and vinegar.

*Propagation and Culture.*

Sow the seed at the same time as for celery, and treat the plants in the same way, for the open ground until the time of final transplanting; but for an early crop, sow on a moderate hot-bed in the beginning of April, and when the plants are strong enough, plant them out on another hot-bed, setting them an inch and a half apart, and give them plenty of water as soon as planted. Give abundance of air every day, until the beginning of June, then transplant them into their final situation, on a bed of light rich earth, and at the distance of fifteen inches every way, and not in trenches, as for celery. Give them abundance of water as soon as planted out, and repeat it once every other day, and if the weather be dry, every day will not be too often. Hoe them occasionally, to clear them from weeds.

Some people water to excess, observing, that without this, the plants will not arrive at their full perfection; but the vigorous growth of the plant depends more upon the richness of the soil, than on the watering.

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CHARDOON.

This is a hardy biennial plant, very much resembling the Artichoke, but rises to a greater

height, being that of four or five feet. It produces its flowers in August and September, also resembling those of the Artichoke.

#### *Use.*

The tender stalks of the inner leaves are the parts to be used, which should be earthed up in order to render them white and tender for stewing, and in soups and salads in autumn and winter.

#### *Time of Sowing.*

The best soil for the Chardon is one that is light and deep, but not rich, and the time of sowing, for a small early crop, is in the close of March; and for a late or main crop, in the first week in April; and for a still later crop in the close of June.

#### *Propagation and Subsequent Culture.*

The Chardon is propagated by seed, which should be sown in a bed of light earth, moderately thin, and raked in evenly; and when the plants are come up, thin them out to five or six inches' distance, in order to allow them room to strengthen for transplanting. In about eight weeks' time, after sowing, allot a piece of ground in an open situation, and having it well dug, and taking advantage of rain, take up the plants, trim the roots, and any long straggling tops of leaves, and insert them either in drills, or on the level ground, in rows, at least five feet apart, and four



feet and a half in the rows. They must be immediately watered after planting, and continued occasionally until they have got fresh root. Hoeing about the plants is necessary, in order both to loosen the soil about the roots, and to cut down the weeds.

In August, September, and October, the plants will be advanced in growth to three or four feet high, when they must be landed up for blanching. In performing the operation of landing up, first tie the leaves up, either with hay or straw bands, after which dig and break the earth well, and place it close round the plant, a foot or more up the stem. As the plants advance in growth, tie and earth them up accordingly, giving them their final earthing in October

If the weather be dry in August and September, they must be regularly watered, which will prevent their going to seed.

#### *Taking the Crop.*

When they are blanched a foot and a half or two feet, or more, in height, they may be dug up as wanted, any time in autumn and throughout the winter till spring.

#### *Protecting in the Winter.*

The plants should be protected in severe frost, either by taking them entirely up, and turning them down on one side, or covering them with litter as they stand.

*Saving Seed.*

Some full grown plants may be left in the spring, which will shoot up and produce seed in autumn.

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## CHAMOMILE.

This is a hardy perennial plant, and grows wild in various parts of the kingdom, in gravelly pastures and by road sides. The leaves are cut into threads, and are prostrate. It produces its flowers in August and September, which are yellow in the disk, but white in the ray, and the whole plant is bitter, and highly aromatic.

*Use.*

It is cultivated chiefly for the sake of its flowers, which are a safe bitter, and serviceable for complaints at the stomach, and is much used under the name of chamomile tea.

*Varieties.*

There are two varieties of this plant; the single and the double flowered. The double-flowered variety, though more beautiful than the other, is less efficacious, yet is more cultivated by growers for the market, on account of its greater bulk and weight.

*Propagation.*

This delights most in a poor sandy soil, and is propagated by parting the roots, or by offsets, or runners. Detach the small tuffy sets with roots any time, either in March, April, or May, and plant them eight or ten inches asunder, giving them water when planted, and repeat it occasionally when required. They will soon take root, and overspread the ground, and will produce plenty of flowers the latter part of the same summer, and continue to bear several years.

*Taking the Crop.*

The flowers should be gathered just when they are full blown, and spread in a shady place, and when they are quite dry, they should be put up in bags for use.

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**CHERVIL.**

This is an annual plant, rising from a foot to near two feet high; the leaves are of a very delicate texture, and three times divided. It produces its flowers in June, which are of a whitish colour.

*Use.*

The tender leaves are the parts to be used in soups and salads, but has of late been of little demand.

*Propagation.*

It is propagated by seed, and for a bed four feet square, a quarter of an ounce will be sufficient.

If successional crops are in demand all summer, begin to sow the seed the first week in February, and sow a portion every three weeks, till August, and not longer between times, as the plants soon run up to seed, after which they are useless. Sow the seed in shallow drills, nine or ten inches apart, and rake it in lightly, and give a little water now and then. The leaves will be fit for gathering when the plants have grown three, four, or five inches high. They must be cut off close to the ground, and they will put out again, and may be gathered in succession.

*Saving Seed.*

To save seed leave some plants standing where sown, they will soon run to stalk, and produce plenty of seed in August.

## CHIVES.

This is a hardy biennial plant, with small bulbous roots, connected in branches; from which the leaves rise, are awl-shaped, thread-like, and are produced in tufts. The flowers appear in June, on round stalks, are white, and tinged with a reddish purple,

*Use.*

The foliage of this plant is used as an ingredient in salads in spring, for which they are more esteemed than onions, on account of their being much milder. They are also used in soups, &c.

*Propagation.*

The chive will grow in almost any soil or situation, and is propagated by slips, or divisions of the roots in the spring or autumn. Plant them in rows eight or ten inches apart, and the same distance in the row, and they will soon increase into large bunches. In cutting the leaves for use, they must be shorn close to the ground, and others will shoot up in succession. A bed thus planted will continue good three or four years, after which time the roots must be taken up and renewed by dividing.

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CLARY.

This is a biennial plant, having large lower leaves, and a stem about two feet high, and of a clammy feel; the flowers, which appear in July and August, are in loose terminating spikes, composing whorls, and are of a pale blue colour.

*Use.*

This plant is in very little demand, the leaves are sometimes used in soups, though some people dislike its scent. Its principal use is in medicine.

*Propagation and Culture.*

This plant is chiefly propagated by seed, and sometimes by cuttings and slips: a quarter of an ounce of seed will be enough to sow a bed large enough for most families. The seed may be sown any time from the middle of March to the end of April, in any bed or border, and raked in evenly, and when the plants are advanced two or three inches high, a portion of the strongest may be transplanted, from twelve to eighteen inches apart every way, to allow sufficient room for the plants and leaves to spread into full growth, when they will be fit for use the same year, and continue through the winter until the following spring and summer.

Some of the old plants may be allowed to run up into stalk in spring, and they will yield ripe seed in autumn.

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**CORIANDER.**

This is a hardy annual plant, rising about a foot high, with doubly pinnate leaves. It produces its flowers in June, which are white and umbel-formed.

*Use.*

It is cultivated in private gardens, chiefly for its under leaves, which are used in soups and salads. It is cultivated on a large scale for the seed, which is used by distillers, druggists, and confectioners, in large quantities.

*Propagation and Culture.*

A sandy loam seems to suit this plant the best. It is propagated by seed, which may be sown any time in the month of February, when the weather is open and dry; and the quantity of seed for a bed six feet long by four wide, and sown in drills nine inches apart, half an ounce will be required. When the seed is sown the drills must be filled in, covering the seed half an inch deep. When a succession is required, small monthly sowings must be made during spring and summer, as the plants at this season will soon run up to seed. A little seed should be sown in a frame in August and September, in order to be protected through the winter. These plants do not bear transplanting well, so they must remain where sown.

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**CARAWAY.**

This is a biennial plant rising a foot and a half high, with spreading branches and compound

leaves, the leaflets of which are in sixes. It flowers in June, in umbels, which are of a white colour.

*Use.*

The seed of this plant is the part chiefly used, and that in confectionery and medicine. It is sometimes put in soups in spring, and the under leaves are the parts used. The seed is raised in large quantities in some parts of the country, as in Essex, for distillation with spirituous liquors.

*Propagation and Culture.*

It is raised from seed, which should be sown in autumn, soon after it is ripe, when the plants will soon come up, which should be thinned out to a foot apart every way. The seed may either be sown in drills or broad-cast, it makes little or no difference. If sowing was neglected in autumn it may be done in March or April, but the seed will seldom ripen the same year. The seed may be gathered when ripe and dried, and put by for use.

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## CORN SALAD

This is a small annual plant, with long narrow leaves of a pale colour, the lower ones rather succulent. The flowers are produced in April, are



collected in little close cormybe, and are very small and of a pale bluish colour.

### *Use.*

It is used as a substitute for lettuce, when that plant is scarce, and also as an ingredient to increase the variety of small salads, for which purpose it is now grown in most gardens.

### *Propagation.*

It is raised from seed, for which a quarter of an ounce is sufficient for a bed containing twenty square feet.

The time of sowing must be guided by the demand, to answer which two or three sowings at most, during the spring and summer, will suffice. The first sowing may be made towards the close of March or beginning of April, and the plants will soon be up; and when they are big enough they must be cut while young and tender. A second sowing should be made in the beginning of August, and another in September, to furnish the table from autumn to spring.

Sow the seed in a bed of rich mellow earth, broad-cast, and rake it in evenly. When the plants are up thin them out to two or three inches apart, in order to give them sufficient room to grow strong for gathering.

### *Saving Seed.*

To procure seed leave some plants in spring, which will produce seed in July and August.

## CRESS. (*Garden.*)

It is a hardy annual plant, rising with numerous small long leaves, curled or plain, from which proceeds a flower stem from fifteen to twenty inches high, and furnished with small white flowers, which appear in June and July.

### *Use.*

This is considered among gardeners as the principal amongst salad herbs, having a peculiarly grateful taste.

### *Varieties.*

The varieties used in common are, the common plain leaved, chiefly cultivated; the curled-leaved, equally good for salads and superior as a garnish; broad-leaved, not so much cultivated as a salad, but chiefly for rearing young turkeys.

### *Propagation.*

All the varieties are raised from seed, which will grow on almost any soil, and if sown in beds, one ounce of seed will be sufficient for a bed four feet by four.

When Cress is in constant demand, as it generally is in the summer, make a regular rule to sow a quantity every week, which affords crops delicately young in regular succession. Choose a warm situation, and for early spring crops commence sowing about the first of March, and leave

off, in the open air, in the last fortnight of October; after that time it will be almost useless to sow in the open ground. After this season, and until frost sets in, sow under frames, and give air freely. For the demand through winter sow in pots filled with old tan, in preference to soil, and place them in a moderate hot-bed prepared for the purpose, or in a stove. Protection will be required at nights, both in spring and autumn, and a covering of mats will be most suitable.

Having allotted the ground, dig it and rake it very fine, then, without drawing drills, (as is usual,) sow the seed very thick in lines five or six inches asunder, and just cover them over with a little mould sifted fine. Give a little water in dry weather.

#### *Taking the Crop.*

It should be gathered for use while moderately young, cutting it clean down to the root, after which it will shoot out again, but the leaves will be hot and not so fit for use as younger plants.

#### *To save Seed.*

Leave a portion of the first sown crop in spring, which soon runs up and yields plenty of seed the latter end of summer.

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#### CRESS. (*American.*)

This is a biennial plant, the lower leaves lyre-shaped, but those on the stalk are pinnatifid.

*Use.*

It is generally esteemed as a winter-cress and early spring salad, and is in demand in some places throughout the year.

*Propagation.*

This plant likes a light, dry earth. It is raised from seed, a quarter of an ounce of which will sow a drill ten feet long. Sow in drills nine inches apart, in preference to broad-cast, and rake the drills in evenly. For winter and spring use, sow in the end of August or beginning of September, on a warm border. If in demand throughout the summer, a sowing must be made every five or six weeks, from March to August. Water must be given in hot weather, and on the approach of winter, the plants must be sheltered a little by a light covering, either of fern, reeds, or litter.

*Saving Seed.*

If a few plants are allowed to run in spring they will ripen seed the latter end of summer.

## CUCUMBER.

*Propagation under Bell-glasses, and in the open air.*

Towards the middle or end of April, sow the seed in a Cucumber or Melon bed, and when they

are come up, plant them out into small pots, two in each, and give them a little water to keep them moist, but not wet. In the middle of May choose a compartment of ground lying warm, and where the soil is rich and light, and dig out a trench two feet deep, and three feet and a half wide, and the length according to the number of glasses that it is intended to contain, at four feet distance from each other. Then fill the trench in with good warm dung, broken well and trod down evenly, leaving the dung about three feet thick from the bottom of the trench, that will be allowing one foot for setting; as soon as the bed is thus made, cover it over immediately either with the soil of the garden or with sods of turf, preferring the latter if they can be procured. Do not allow any part of the dung to be exposed, and the fermentation will go on regularly. Insert trial sticks in different parts of the bed, and when the dung is come to its full heat put on about six inches more soil, (allowing the first covering to be two inches,) and immediately put on the glasses, four feet apart, and when the mould is warm under, turn the plants out of their pots, with their roots entire and balls unbroken, and insert them under the glasses, one ball containing two plants under each, and give them a little water directly to settle the mould about them; place the glasses immediately over them, and keep them close till they make fresh roots and begin to grow, when a little air must be given, by raising the glasses a little on one side, and as the warmer weather

comes on, give air more freely, in order to inure them to the open air. When the plants begin to fill the glasses, raise them up on bricks, to bear them from the tops of the plants. When the plants begin to fill the glasses a second time, they must be trained from under them in an horizontal direction, laying sticks, similar to pea sticks, upon the soil for the vine to run upon, as they always do better on these than on the ground. The plants will require but little more attention further than watering sufficiently in dry weather, and to continue to lay sticks to catch the vines as they run. If the summer proves fine and favourable, they will come into bearing in the latter end of June, and continue two or three months. When all danger of frost is over, take the glasses quite off.

Should dung be scarce, circular holes may be dug, eighteen inches deep, two feet across, and about five feet asunder, and filled in with hot dung, trod moderately firm, and immediately covered with about six inches thick of light rich mould, and the glasses immediately set on, and when the soil gets warm, either plants or seeds may be put under them, and if managed as above, they will produce plenty of fruit from the latter end of June to the end of September, supposing the plants to be put in in the first week in May.

Sinking the bed into the ground is a particular circumstance to be attended to, for when the dung is made into narrow beds, the roots soon

strike to the sides, and thus, having no further scope to run, the plants receive a check they never recover. On the other hand, when the bed is sunk in good rich soil, and the roots or fibres extend themselves out of the dung, they will work forward into the soil, and will continue to grow till autumn.

Proper attention must be had to watering in dry warm weather; two or three times a week will not be too much till June, and after that time a little every day will be required, giving it in the evening from June to August, as the weather is warmer or cooler. At other seasons morning is the best time. Soft or rain water must always be used in preference to well or spring water, which is injurious to the plants.

*Sowing for a Crop in the open air, on the natural ground, without the aid of Dung,*

To have a crop on natural ground, for pickling, sow the seed in a warm situation, and where the soil is light and rich, towards the end of May or beginning of June, or as soon as the weather is settled warm. After having dug the ground even and neat, form shallow basins in the soil, about an inch deep, and drop eight or ten seeds in each, and cover them half an inch deep. When the plants are come up, they must be thinned out, leaving only three, or at most four in each patch. The patches should be in lines six feet asunder, and three feet apart in the lines.

After the plants have begun to run and advance in growth, the leading runners must be trained out on sticks as the others. They must be freely supplied with water two or three times a week, and more frequent in hot dry weather, or the crop will fail.

This crop will come in in the beginning of August, and continue till the middle of September, when it will go off. This crop, both for pickling and other purposes, should be gathered while they are young and in prime. For pickling they should not be more than three inches long.

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### DILL.

This is a hardy biennial plant of upright growth, somewhat resembling fennel, but smaller. The leaves are finely divided; stem single, slender, and terminated by an umbel of flowers, which appear in June and July.

#### *Use.*

The plant being aromatic, the leaves are used to heighten the relish of some vegetable pickles, particularly cucumbers, and also in soups and sauces.

#### *Propagation.*

It is raised from seed sown in March, April, or May, in an open spot of ground, either in drills a



foot asunder, or broad-cast, and raked in evenly. When the plants are come up, they must be thinned out to eight or ten inches apart. This plant does not like transplanting, therefore it must remain where sown. If the seed be sown in autumn, as soon as ripe, it will come the stronger next spring.

#### *Saving Seed.*

Any of the plants left where sown, will soon run up and furnish plenty of seed in autumn.

### ENDIVE.

This is a hardy annual, with numerous root leaves, which are large, sinuate, toothed, and smooth; the stem is about two feet high, branched, and produces pale blue flowers in July and August.

#### *Use.*

This plant is much esteemed in most families, and is cultivated for its stooky head of leaves, which, after being blanched to take away its bitterness, is used in stews and soups in autumn, winter, and spring.

#### *Varieties.*

The varieties are the Green curled-leaved; White curled-leaved, and Broad curled-leaved Batavian.

*Estimate of Sorts.*

The Green curled-leaves is considered the best for autumn and winter use, it being of more stocky growth and hardier to stand the weather. The White curled-leaved is equally good for summer and autumn use. The Broad-leaved is the same, only more esteemed by some in stews and soups, though not in salads.

*Propagation.*

All the varieties are raised from seed, and for a small early crop a little seed may be sown in the beginning of May; but for full and successional crops in autumn, winter, and early part of spring, sow any time from the end of July to the end of August.

*Subsequent Culture.*

This plant delights in a light, rich, mellow earth, in an open situation, therefore choose a compartment of this description and dig it neatly over, and sow each sort separate, scattering the seeds thin, and rake evenly in. When the plants are come up an inch or two, thin them out to two or three inches, to give them room to strengthen for final planting

When the plants are from four to six inches high, transplant them out into rows fifteen inches asunder, and twelve inches between plant and plant in the rows. The ground being neatly dug over, then draw drills at the distance above men-

tioned with a hoe, and having taken up the plants and dressed off their lower roots and a few leaves, insert them in the ground with a dibble, and give them a little water as soon as planted, and continue to supply them in dry weather. Plant the first crop in the latter end of June, and continue to plant successional crops every month till October. Plant a few out in November, in a frame to secure them more effectually from the frost.

### *Blanching.*

As the plants advance in growth, or towards maturity, tie up the leaves to blanch or whiten, and to render them crisp, tender, and mild tasted. Do this work when the weather is dry, and in the winter season when there is no frost. Perform the operation with strings of bass-matting, tying the leaves up regular a little above the middle, moderately tight. If the soil be light and dry, earth them up about half way, but if moist, make tying suffice. The blanching will sometimes be complete in a week if the weather is hot, and if not it will sometimes be a fortnight or three weeks. It must not remain more than five or six days after it is blanched before it is cut, as it will begin to rot, and particularly if the weather should come wet. This plant may be blanched under garden pots or blanching pots, as sea-kale, and this is the best way in winter and wet weather, but tying it up is the best in summer and autumn.

*Protection in the Winter.*

On the approach of winter cover the plants thickly with straw, first making a sort of scaffold to prevent the straw falling upon the plants; this is best made of boards resting on bricks.

*Saving Seed.*

If any plants remain all winter they will soon run to seed, which will be ripe in the latter end of summer; or if no such plants remain, a little seed may be sown in March or April, which, if properly thinned, will soon run up and ripen seed in autumn.

## FENNEL.

This is a perennial plant rising from five to six feet high, it has finely cut leaves and capillary leaflets on a smooth dark-green branched tubular stalk. It flowers in July and August, and the flowers are produced in little umbels at the summit of the branches, and are of a yellow colour.

*Use.*

The tender stalks are sometimes used in salads, and the leaves boiled form an ingredient in many fish sauces, and raw as garnishing for several dishes.

*Varieties.*

The varieties commonly grown, are the Common or Sweet; Dark-green-leaved; and the Dwarf or Finocchio; this last variety is distinguished from the others by its tendency to swell in the stalk to a considerable thickness. It is blanched white and tender, and eaten with oil, vinegar, and pepper, as a salad.

*Propagation.*

All the sorts are raised from seed or off-sets from the root of the old plant; but propagation by seed claims a decided preference on account of its tap-root, which, if broken, never grows strong afterwards. It should be sown in drills, from fifteen to eighteen inches asunder, and when the plants are come up, they should be thinned out to twelve or fifteen inches apart.

This plant would remain in the ground several years if not permitted to run up to seed, but cut down, and it will soon send up a succession of young leaves both for present and continued supply. The stem of the Finocchio should be earthed up five or six inches to blanch, which will be effected in ten days or a fortnight.

*Saving Seed.*

Some of the best stalks, if permitted to run up, will produce plenty of seed in autumn.

## GARLIC.

This is a hardy perennial bulbous-rooted plant, with long linear narrow leaves. It has a compound root of from ten to fifteen subordinate bulbs, called cloves. It flowers in June and July.

*Use.*

It is cultivated for the sake of its bulb, which is used for various purposes; generally only for a short time, being introduced into the dish while cooking, and taken out again after a sufficient degree of flavour has been imparted.

*Propagation.*

Garlic does best in a light, dry, rich, but not recently manured, soil. A fresh hazel loam, newly broken up, suits it best, as on such it runs fine, and worms and grubs do not infest it, such ground being generally clear and clean. Planting may be done any time from the beginning of February to the beginning of April, and the bulbs will do equally well. Having some good large roots, divide them into separate cloves or subordinate bulbs, plant them singly in rows eight inches asunder, and the same distance in the row, and an inch deep. Plant them in holes with a blunt-ended dibble, dropping the clove to the bottom, and when the whole is planted rake the ground even to cover in the holes. The plants are soon up, and must be kept clear from weeds.

*Taking the Crop.*

The bulbs will be full grown by the end of July or beginning of August, and the leaves changing colour and appearing decayed is the criterion of their maturity, and may be taken up with safety. The leaves and stalks must remain to the bulbs, which must be spread in the sun to dry and harden, after which they must be tied up in bundles and hung up for use as required. They will remain good for the following spring and summer use.

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**HORSE RADISH.**

This a hardy perennial, the leaves of which are large, oblong, sometimes smooth, and at other times notched at the edges; on the stem they are sometimes pinnatifid; the flowers appear in May and June, are white, and are in loose panicles.

The root scraped into shreds is a well-known accompaniment of Old English Roast Beef; it is also used in salads in winter, and in sauces, and sometimes eaten raw.

*Propagation and Culture.*

An open situation, and a deep, soft, sandy loam, neither very dry in summer nor wet in winter, suits the horse-radish best. The ground

should be prepared in the autumn by trenching three feet deep, leaving the trench at last open till spring. In February procure the sets; these should be the strongest crowns or leading buds from old plants, and about an inch long; then begin at the end where the trenching was left off, and level the bottom of the open trench, and plant the sets nine or ten inches apart each way, with their crowns upright; then dig another trench two feet wide, as in the common way of trenching, turning the earth into the first trench over the row of sets, and then plant another row, and so on till finished. The bed must be kept clear from weeds all summer, and in autumn it must be cleared of the leaves. The roots will be fit to take up for use the following autumn; they must be taken up by opening a trench at one end of the bed to the bottom of the roots, so that they may be taken up entire and sound, which will be superior both in size and quality to most seen.

Some roots should be dug up on the approach of frost, and preserved in sand for use in winter, when it would otherwise be made fast in the ground.

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## HYSSOP.

This is a hardy ever-green under shrub, rising from a foot and a half to two feet high; the



leaves are lanciolate, short, and rather obtuse. It flowers from June to September, and the flowers are blue. The whole plant has a strong aromatic odour.

#### *Use.*

The leaves and young shoots are used as a pot-herb, and the leafy tops and flower spikes are cut, dried, and preserved for medicinal purposes.

#### *Varieties.*

There are three varieties of this plant—the white, the blue, and red flowered, but the blue is the one most cultivated.

#### *Propagation.*

It may be propagated either by seed, slips, or cuttings; if by seed it may be sown in March or April, either broad-cast or in drills eight inches asunder. The plants will soon be up, and must be transplanted out either into beds or as an edging; they must be planted a foot apart, and watered directly after planting, and occasionally in dry weather until the roots get hold of the ground. Cuttings from the stalks are to be planted in April and May, in a sandy soil, where they will soon take root and grow freely. Young slips of the same year may be taken from the old stock in July, and planted in a sandy soil in a shady situation, and if kept moist by watering, will soon strike root and grow freely.

## KIDNEY BEANS. (*Runners.*)

This plant has a twining stem, and would rise from twelve to eighteen feet high, if it was supported. The leaves are ternate on long foot-stalks, the flowers on axillary racemes, the corolla generally red, but sometimes white. The pods are oblong, seeds kidney-shaped, smooth, and shining, when ripe varying in colour according to the sort, and are either white, black, or spotted. The fruit may be had in the open garden from June till destroyed by frost in autumn.

### *Use.*

The unripe pods are the parts in request, and when boiled are very much esteemed at table.

### *Varieties.*

There are several varieties, as the Scarlet Runner, the most beautiful and lasting bearer, consequently most proper for main crops—the large White Runner; this is a variety of the scarlet, the seed and blossoms white, but the pods similar to the scarlet kind—White Dutch Runner, bears very long pods, but does not continue so long in flower as the two former—Canterbury; Batterssea, Small White, and Variable Runner.

This is a tender plant in its nature, unable to bear the air of our climate before the latter end of April or beginning of May, the seed being lia-

ble to rot in the ground if planted sooner, even in a dry soil. Sharp cold always checks the plants, so that they make but little progress before the weather is settled and warm.

#### *Estimate of Sorts.*

The Scarlet Runner is most esteemed, on account of its greater prolificacy and longer continuance in fruit; the pods are thick, fleshy, and, if gathered while young, are very good. The White Runner is also good for a principal crop. The Dutch Runner is also a good bearer, having fine long pods, but not so lasting as the others. The Canterbury and Battersea bear tolerably well, have slender neat pods, which are good and tender eating.

#### *Propagation and Culture.*

The Kidney Bean delights in a light and very rich soil, and if inclined to be a little moist so much the better.

Never commence planting till the beginning of May, and then only a moderate crop, deferring the principal crop till the first week in June. The Dutch Bean is very suitable for a later crop, but the Scarlet is the best for principal crops. Sow in rows about five feet apart, and in drills not more than two inches deep, placing the beans about five inches apart in the rows, in quincunx order, and earth them in evenly, making the ground quite level. This vegetable may be planted on each side a walk, and so roded

as to form an arch top, making a very pleasant walk in the warm days of summer.

#### *Subsequent Culture.*

When the plants have come up and advanced in growth five or six inches, hoe them up by drawing earth to their stems and cutting down all weeds as they appear. As soon as they begin to run stick them, that is, place suitable rods or supports to each row, placing them a foot apart, and the vines will soon advance in growth, come into flower, and yield fruit in long succession.

#### *Gathering the Crop.*

The pods are in the highest perfection for the table while they are young, tender, fleshy, and brittle. The pods should be clean gathered, and not left to grow old, as they would rob those in succession; and shorten the duration of the crop.

A sufficiency of good pods are generally to be found on the plants after the crop is over in autumn, which will produce plenty of seed. It frequently happens that some of the tendrils refuse to go up the rods, in which case they must be conducted by turning them the contrary way to the sun's course, for if put to go with it they will turn again and not go forward.—This deviation from the common habits of plants is, in my opinion, to be accounted for thus, that it is a native of South America, which is in the southern hemisphere, and that the plant, although re-

moved to the northern hemisphere, is still obedient to the course originally assigned it by its Maker.

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### KIDNEY BEAN. (*Dwarf.*)

This is an annual plant, and its constitution and habits are similar to the former, only it has not a running stem, neither is it so prolific or long bearing.

#### *Use.*

The unripe pods are used as the former, in addition to which, while it is quite young and not more than an inch long, nor thicker than a small wheat straw, it is esteemed as being superior for pickling.

#### *Varieties.*

The varieties of this, in common cultivation, are, the Early Yellow Dwarf—Early Red Speckled—Early Black, or Negro—Early White—Battersca White—Canterbury White—Black Speckled—Brown Speckled—Dun Coloured—Streaked—Tawny—and Large White Dwarf.

#### *Estimate of Sorts.*

The dwarfs will bear sowing a little sooner than the former, and will come in something earlier; they are more convenient to cultivate on a large scale, and are also considered by some as

being more delicate in flavour. For the first early crop, sow the Early Yellow, Early Black or Negro, or the Early Red Speckled, and for a rather later crop, the Early White is a proper bean, and is considered superior to the others in flavour. The Canterbury and Battersea are esteemed the most for main crops. The Dwarf Kidney Bean does not continue in bearing more than three weeks or a month, so that it is necessary to sow a successional crop or two, in order to have a continuance until the runners come in, or for a regular succession throughout the summer.

Half-a-pint will sow a row eighty feet in length, the beans being placed from two and a half to three inches apart.

#### *Propagation.*

This sort, like the other, delights in a light rich soil, and for early crops it should be rather sandy and dry; and for later crops, a moist loam is more congenial.

Begin the first sowing of Dwarf Beans about the first week in April, if the weather be fine and open. The best situation is a dry south border. Make the drills two feet apart, and an inch and a half or two inches deep, for the smaller-sized beans, dropping them into the drills pretty close together, in order to allow for a failure, which is sure to happen at this early season. For main crops, other portions must be sown towards the end of April, and in May and June,

in order to have a continued supply. For later crops make the rows two feet and a half asunder, two and a half inches deep, and about two inches and a half apart in the rows. If a late crop is desired, a moderate sowing must be made in the beginning of August. Crops sown late should be favoured with the best situation the garden affords, otherwise the crops will not come to any account. It is not worth trouble to grow late crops of dwarf beans, as the runners, under proper management, will continue to bear until destroyed by frost. The beans for summer sowings would be accelerated in their germination if they were soaked in soft water six or eight hours, previous to sowing. As the plants of different crops advance in growth, hoe and stir the ground between the rows, and cut down all weeds as they appear, and draw a little earth to the stems, which very much encourages the growth of the plants and the production of a good crop.

#### *Gathering the Crop.*

The pods should be gathered while young, fleshy, brittle, and tender, as then they are in the greatest perfection for the table; and by clean gathering the crop will continue longer than if a super-abundant crop were left to grow old, which would rob the successive pods of a considerable portion of support.

#### *Saving Seed.*

Set apart a row, or what quantity is thought will be sufficient for seed, not gathering any until

they are fully ripened, then pull up the haulm, and rear it in the sun until it is well hardened and dry; after which the beans may be cleared out of the pods and put by till wanted. It frequently happens that a sufficient quantity will be promiscuously found upon the stalks after the crop is over, which must be care taken of as above, and they will make seed equally good.

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## LAVENDER.

This is a hardy under-shrub, rising from two to four feet high, with hoary linear leaves, slightly rolled back on the edges; the flowers form terminating spikes, of a blue colour, and appear from July to September. Both leaves and flowers are powerfully aromatic.

### *Use.*

This plant is employed medicinally rather than in cookery. The spikes of these flowers are much esteemed, and particularly so by the ladies, on account of its fragrance. They are also put into bags and placed among linens to perfume them.

### *Varieties.*

There are two varieties, the narrow-leaved and the broad-leaved, both of which are equally good.



*Propagation.*

It may be propagated either by cuttings or slips; and the soil should be poor, or of a dry gravelly nature, as on such the flowers have a powerful odour, as well as being more hardy to stand the severity of winter more effectually. In a rich soil the plant is liable to be killed, neither is its odour so powerful.

It may be planted in a quarter to itself, in rows three feet asunder, and two feet distant from each other in the row; or the plants may be set to form a hedgerow by the side of a walk, at eighteen inches apart, and the plants will form a close head, and when established will produce plenty of flowers in July and August; which must be gathered while in perfection, cutting the spikes off close to the stem.

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**LEEK.**

This is a hardy biennial, the stem rising three feet high, is leafy at bottom, and the leaves are an inch broad. It produces its flowers in May, which are close large balls, of a purple colour.

*Use.*

The whole plant is used in soups and stews, and the stem, when blanched, is most esteemed.

*Varieties.*

There are three varieties in cultivation, the Narrow-leaved, or Flanders Leek—the Scotch—the London, or Broad-leaved Leek,

*Propagation.*

The largest Leeks are grown on a light rich soil, lying on a dry subsoil, a rank soil being very unfavourable to it. When it is found necessary to manure ground for Leeks, it should be done a considerable time previous to sowing, and the ground dug several times over, in order to incorporate and pulverise the soil and manure, the manure being well rotted beforehand. A compost of well rotted dung and sandy loam, or road drift, will suit the Leek well; but in either case the ground should be dug in autumn or winter, and that two or three times over. Sow the Leek on beds five feet wide, scattering the seed pretty thick, and rake it in evenly.

Sow a little seed at the latter end of February, if the weather be favourable and the ground in a dry state, for a small crop to come in early; but make it a general rule not to sow the principal main crops till the first week in April, and a lesser successional crop in the first week in May, for winter and spring use.

When the plants are three or four inches high, weed and thin them, where too thick and crowded, and give them plenty of water frequently in

dry weather, to forward them for transplanting from June to August, or when they are from six to ten inches high. Plant in trenches, the same as for celery, preparing the trenches some time before planting. Choose an open situation, and dig out trenches about fifteen inches wide, eight deep, and two feet and a half asunder, and place the soil so taken out in the spaces between the trenches, and fill them in, about six inches deep, with the compost above mentioned, which will grow the roots to a very large size. The ground being thus ready, thin out a quantity from the seed-bed, giving the bed a good watering, if the weather is dry, in order to loosen the root in the soil, otherwise, if the ground be rather baked at this season, they will be subject to be broken off close to the bottom of the plants, which will weaken them very much; trim the root-fibres to an inch and a half long, and slip off any weak long leaves close to the root, not cutting off the tops, as is usual, in which case they never grow any more, at least not so as to do any good; plant a single row in the middle of each trench, setting the plants six inches apart, inserting them in the ground nearly to the leaves with a dibber, pressing the earth down close to the fibres, and give them a good watering immediately, and continue it frequently until they get good hold of the ground. Keep them clear from weeds, and as they advance in growth hoe the soil up to the plants on both sides to blanch, the same as celery, until they are full grown; they will thus

produce very large roots from September to May. Take up a quantity in autumn, or on the approach of frost, and preserve them in sand.

#### *Saving Seed.*

In order to procure Leek seed some of the largest plants should be transplanted in February or beginning of March into an open situation, and where it can have every advantage of the sun. They will run up into single tall stems or seed-stalks, and produce ripe seed in September or October. They must be supported by stakes to prevent breaking down. When the seed is ripe it must be cut, and tied in bunches to dry and harden the seed thoroughly, when it may be put in paper or other bags and hung in a dry place till wanted.

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## LETTUCE.

This is a hardy annual with large milky leaves, frequently wrinkled, very pale-green, varying much in form and colour in the different varieties.

#### *Use.*

This is a much esteemed salad herb, and is also used in soups.

#### *Varieties.*

The varieties of this plant are considerable but shall only enumerate those commonly culti-

vated in British gardens, or such as may be had of the principal seedsmen: Brown, or Bath Coss; Black-seeded Green Coss; White-seeded Green Coss; White Coss; Spotted Coss; Egyptian Coss; Silecia; Florence Coss; Cabbage; White; Imperial; Malta; Brown Dutch; Hammersmith Hardy; Russian; Grand Admiral; and Tennis-ball.

*Estimate of Sorts.*

In their general growth all the Coss Lettuces have an upright habit and oblong shape. The Cabbage Lettuces are round-leaved, growing close to the ground. Both have close firm heads when at maturity, but they are sometimes used in open young growth. The Coss Lettuce is the most esteemed as a salad, but the Cabbage kinds are preferable for soups; the Silecia is esteemed by some, but is not cultivated as it formerly was. For the summer and autumn use all the Coss Lettuces are very proper sorts; next to these are the Cabbage Lettuces, the Brown Dutch, the Imperial, the Grand Admiral, and Silecias. Such sorts are as backward at running for seed should be reserved for the end of summer, such as the Hardy Green Hammersmith, the Brown Dutch, and the Tennis-ball.—For a late sowing, to stand the winter for early spring use, the White, the Green, the Black-seeded, and Egyptian Cosses; or the Brown Dutch, the Hardy Green, and the Tennis-ball are hardy, and may be depended upon for standing severe weather.

*Propagation.*

This plant is raised from seed, which grows freely on a light rich soil lying on a dry subsoil. Some people, in order to increase their supplies throughout the summer, sow among their other crops, as with Onions, Leeks, Carrots, and Radishes, and where ground is scarce it may answer, but where ground is at the will of the cultivator the principal crops will be better on ground set apart to itself, and also each sort sown by itself and kept separate.

*Times of Sowing and Subsequent Culture.*

In order to have good summer and autumn crops of Lettices sow once a month, from the beginning of February to July, and for late autumn, winter, and following spring crops, in August and September. All autumn, winter, and spring crops should be sown on a warm south border, well sheltered; but for a summer crop an open situation is more suitable.

After digging the ground well and breaking it fine, sow the seed broad-cast, and rake it in evenly, and fine, and in dry weather give a little water, keeping the ground moist until the plants come up, and if dry weather continues, a little now and then. When they have advanced two or three inches high, thin them out from a foot to fifteen inches asunder every way, and of those so thinned out plant a quantity on good rich ground, at the same distance, observing to take off a few.

of the lower leaves and the ends of the roots, and plant them with a dibble, inserting them pretty well in the ground, and giving them a little water until they have taken fresh root. When they are about three parts grown, and the inner leaves begin to turn in or lap, they may be forwarded by tying the leaves moderately close together with sprigs of bass, or they will lap without this assistance. Thus managed, the first crop will come in in the beginning of May, and continue in succession until autumn.

In the month of October transplant a good quantity of the September sown plants out of the seed-bed on a dry sheltered situation, three or four inches apart, to continue for winter and early spring use. At the same time, transplant a quantity, close together, into frames or hand-glasses, for protection in frosty and bad weather. Should there be a deficiency in frames, a quantity may be planted very thick, so as to be arched over and covered with mats from the rigorous weather.

Such plants as are planted for protection in winter, must have free air at all opportunities in fine weather, and in the middle of the day, when the sun is upon the plants, the glasses may be taken quite off, but must be put on again early in the evening, and kept close at nights and all bad weather. When all danger of frost is over, those crops which were planted thick in frames and borders, and have survived the winter, should be thinned out to eight or ten inches

apart, and the plants so taken out must be planted on another compartment, at the same distance, and they will come to full stocky hearts in April and May, and thus the table will be supplied till the spring-raised crops come in.

*To save Seed.*

If any of the winter stood plants or any of the spring sown ones are left uncut, they will soon run up to seed, which will be ripe in the latter end of summer.

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LOVE-APPLE.

This is a tender annual, rising, when supported, to from six to eight feet, with pinnate leaves; it produces flowers in July and August, which are in bunches and of a yellow colour; and fruit in September, which is smooth, compressed at both ends, and furrowed over the sides; it varies in size, but is seldom larger than a good sized hen's egg. The whole plant, when handled, has a very disagreeable smell.

*Use.*

The fruit, when ripe, has an acid flavour, and is used in soups and sauces, and the juice is preserved for winter use, like catsup; it is also used in confectionery, as a preserve, and, when green, as a pickle.



*Varieties.*

The sorts in cultivation are, the Large, Small, Cherry, and Pear-shaped Red; and the Large and Small Yellow. The first sort is most cultivated, on account of its being more esteemed for domestic purposes, yet a few plants of the other sorts may be raised for variety's sake.

*Propagation and Culture.*

This plant must be raised and forwarded on a hot-bed. Sow in the end of March, in pots of fine rich light soil, and place them under the glasses of any common hot-bed, and keep them just moist; and when the plants are an inch and a half or two inches high, prick them out into very small pots of the same light earth, one in each pot, and place them into the bed again; to remain to gather strength to stand the open air in the latter end of May or beginning of June, at which time plant them out on a border of very rich soil, lying south and a good deal sloping; turn them out of the pots carefully, and plant them in a row near to the foot of the border, and about four feet apart, and give them water and shade them from the sun until they have got hold of the ground. As they advance in growth, place the shoots in a direction to the back of the border, and peg them down, and when the shoots meet, top them and clear away all lateral shoots; and when the fruit begins to ripen, cut away the

leaves near to it, in order to admit the sun to ripen it. When there are vacant spaces on walls, here and there a plant may be set and nailed to the wall, but not near to any choice fruit-tree, as they draw a great deal of nourishment from the ground.

Gather some of the best ripened fruit in autumn, and clear out the seed by washing it from the pulp, and afterwards, drying it thoroughly, put it by in papers for use the following spring.

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### MARJORAM.

There are four sorts of Marjoram cultivated—the Pot, Sweet, Winter, and Common. Pot Marjoram is a hardy perennial under-shrub, the stem rising about a foot high, and is covered with spreading hairs; the leaves are small and acute, almost sessile, and tomentose on both sides. It flowers from July to November, and is propagated chiefly from rooted slips, and sometimes from seed, which it seldom ripens in this country.

Sweet Marjoram, is a hardy biennial, much resembling the latter, but the leaves have distinct petioles, and the flowers, which appear in June and July, are collected in close small heads: it seldom ripens seed in this country, but is generally procured from France. This, although a biennial in its own country, must be treated as an annual here, and sown and reaped every year. Sow in the middle of April, on a

spot of light earth; and when the plants are up two or three inches high, thin them out to eight inches apart, and give them water. When the plant is in flower it must be cut and dried for winter use.

The Winter Sweet Marjoram is a hardy perennial, the leaves of which resemble the two last; but the flowers, which are produced from June to November, are in spikes. It is propagated by cuttings and slips.

The Common Marjoram is a hardy perennial bearing some resemblance to the others. The flowers are smooth clustered spikes of a reddish colour, and produced in July and August. This is only used as a substitute for the others.

All the sorts are aromatics of sweet flavour, and much used in soups, broths, stuffings, &c. The young tender tops and leaves are used in summer, in their green state, and are gathered and dried for winter. The gathering should be performed when the plants are in full blossom, which is in July and August, and when thoroughly dry should be put by for winter use.

## MARIGOLD.

This is an annual plant, with a short divaricated stem one or two feet high, and is divided into numerous branches, which are furnished with blunt lanceolate leaves. It produces flowers from the end of May to autumn, which are of a

yellow colour. It was well known and much esteemed in former times, as being a comforter of the heart, but I think only in cases in which the heart required but little comfort. It is yet considered a valuable ingredient in broths and soups, in which it is more pleasing to the eye than to the palate.

There are several varieties; those commonly cultivated are, the Single Orange-flowered; the Single Lemon-flowered; the Double-flowered of both varieties, and the Childing or Proliferous: the three first are cultivated for the purposes above mentioned, and the latter one to look at.

The seed may be sown any time from September to April, if the weather will permit. It may be sown either broad-cast or in drills a foot apart, and the seed raked evenly in; and when it is come up a few inches high, they must be thinned to twelve or fifteen inches asunder, and those plants so taken out may be transplanted to another compartment if required. They will continue flowering from July to autumn, during which time a store should be gathered when in full flower, and spread to dry out of the sun, and put in paper bags for winter use. The flowers, if left on, will produce plenty of ripe seed in autumn.

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### MILFOIL.

This is a plant well known in this part of the country, (Nottinghamshire,) under the fictitious name of *Sweet Mace*,

There is only one variety of this species, the *Achillia Serrata*—*Notched-leaved Milfoil*. (Eng. Bot. 2531.)—The leaves are linear-lanceolate, sessile, tomentose, deeply serrate, and jagged at the base. The flowers appear in August and September, resembling those of *Sneeze-wort*.

#### *Use.*

The use of this plant is well known in the various branches of cookery, particularly in stuffings, &c.

#### *Propagation.*

This plant should have an open situation, but almost any soil that is a little moist will be agreeable to it. It is propagated by off-sets of the root, in spring, just after it has begun to grow. These should be planted singly, in rows eighteen inches asunder, and the same distance apart in the rows. The plants must be watered when planted, and repeated now and then until they have got fresh root. The ground must be kept clear of weeds, which is all the care they will require until autumn, when they must have the stalks cut off and the surface of the ground loosened about them. It is generally planted amongst the pot-herbs.

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#### MINT.

There are several species of this plant cultivated, but those for general use, are the Pepper-

mint and the Spear-mint. The former is easily distinguished from the latter by its blackish or purple-coloured flowers, which appear in August and September. It is almost entirely cultivated for distillation. The Spear-mint rises from two to three feet high, with sessile lanceolate leaves, and the whole plant is of a reddish-green colour, and the flowers appear in August.

#### *Use.*

It is cultivated for its leaves and tops, which are used in spring salads, and form an ingredient in soups; they are also employed to give flavour to certain dishes, as peas, young potatoes, &c.; and young cabbage should never be boiled without it, as, independent of its flavour, it is said to prevent those griping pains frequently caused in the bowels after eating it.

#### *Propagation and Culture.*

Both species are propagated by off-sets of the root and by cuttings of the stalk.

#### *By Off-sets.*

Procure these in spring from established plants, and plant them with a dibble in rows six inches asunder.

#### *By Cuttings.*

In May or June (taking the advantage of showery weather) procure the young tops, and cut them into lengths of about six inches, and taking

off the lower leaves about half way up, insert them half way into the soil with a dibble, six inches apart every way, and water them immediately, and they will soon take root and be fit for use the same year. They must be kept clear from weeds at all times, and at the end of autumn any stems remaining must be cut away, and a little light earth spread thinly over the beds.

The young tops may be gathered for culinary purposes and salads any time after they are an inch high; and for winter store, when they are beginning to flower, cutting the stems off close to the ground and placing them in the shade to dry, as the sun would evaporate their juices and spoil them: then tied in bundles and put by for use.

Both sorts continue by the root several years, but when the stems begin to come weak and dwindling, it is better to make fresh plantations in time than to allow the beds to stand without bearing half a crop.

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## MUSTARD.

There are two sorts in cultivation, the White and the Black, the latter of which is cultivated principally for medical purposes; the White is cultivated chiefly as a small salad, and is used as cresses while in the seed leaf, at which time they are mild and tender, but when advanced into

rough leaf they are strong and disagreeable. This plant requires the same culture as the Garden Cress.—*See that article.*

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## NASTURTIUM.

This is an annual plant, rising, if supported, to eight or ten feet high; the leaves have their leaf-stalk fixed to their centre. The flowers are produced at the end of June, and continue in succession till destroyed by frost; they are of a brilliant orange colour, and very showy.

### *Use.*

The flowers and young leaves have a warm taste like the common cress, and form an ingredient in salads. The flowers are used as a garnish to dishes, and form a brilliant contrast with those of borage. The berries are gathered green and pickled, in which state they form an excellent substitute for capers.

### *Varieties.*

There are two varieties in cultivation, the Major or Large Running, and the Minor or Dwarf.

### *Propagation.*

Both sorts are propagated by seed, of which one ounce will be sufficient for a drill twenty feet long. The seed may be sown any time from the beginning of March to the same time in May,



but not later. A light fresh loam suits this plant the best, yet it will grow in any soil, but it is not so productive in a rich soil as in one rather poorer. The seed should be of the last year's produce, as they seldom grow well at a greater age. The seed may either be sown near a vacant fence, trellis, or wall, and the runners trained thereto, or on an open compartment, in drills four feet apart and an inch and a half deep, and the seeds placed at the bottom two or three inches apart. When the plants advance in growth, they must be trained either to a trellis, fence, or rodded the same as is usual for peas. The young runners will require to be conducted at first, but will afterwards climb without assistance.

#### *Gathering the Berries for Pickling.*

The berries must be gathered for pickling when they have just attained their full size, and while they are green, plump, and tender.

#### *Saving Seed.*

The berries will be thoroughly ripe in August or September, when they may be gathered, spread to dry and harden, and afterwards put by for regular use.

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## ONION.

The common onion is a plant so well known, that a general botanical description would cer-

tainly be superfluous and useless; yet to describe the different varieties is indispensably necessary.

*Varieties.*

There are a considerable variety of Onions, and those most cultivated are, the Deptford, which is middle-sized, globular, and a pale brown colour, and very generally cultivated; the Globe is large, globular, pale brown, tinged with red, mild, and keeps well; James's Keeping Onion, large, pyramidal, brown, tinged with red, mild, and keeps well; Strasburg, oval, large, light red, tinged with green, hardy, keeps well, but of strong flavour—much the most cultivated; the Portugal Onion, is large, flatly globular, mild, and does not keep well; Spanish, large, flat, white, tinged with green, but does not keep well; Brown Spanish, differing nothing from the last, only in colour, which is brown; Silver-skinned, flat, middle-sized, and shining, one of the best for pickling; Blood-red, middle-sized, flat, very hardy, deep red, strong flavour, and keeps particularly well; Welsh Onion, hardy, does not bulb, but is sown in autumn to draw in spring, and is strong flavoured; Potatoe Onion, this multiplies itself by the formation of young bulbs on the parent root, and produces an ample crop below the surface; it ripens well, but does not keep well in the spring, and has a strong flavour.

*Estimate of Sorts.*

The Portugal and Spanish are considered the best for early use, and yield large crops; but the

Deptford, Strasburg, and Globe are the best for principal crops, as they yield well, and keep longer than most others in the spring. The Silver-skinned is reckoned the best for pickling. The Potatoe Onion is planted for an auxiliary crop, but is inferior in flavour. The Welsh Onion is generally sown at the latter end of summer, (September,) to draw in spring as scallions.

#### *Use.*

Young Onions, in spring, are used in salads, and, when bulbed and mature, in soups and stews, and are for these purposes cultivated by every class of society in Europe.

The Onion delights in a rich mellow soil on a dry subsoil, and on such it attains a good size; but for picklers the soil should be poor. For a bed five feet by twenty, two ounces of seed will be required; but when sown for a full crop, one ounce of seed will be sufficient for a bed twenty-four feet long by five wide; and for a bed the same size, to be drawn off for transplanting in the spring, three ounces will not be too much.

#### *Propagation and Subsequent Culture.*

March, if the weather be fine and open, is the best season for sowing the seed for a full or main crop; for this purpose allot an open compartment of ground and tread it into beds of convenient width, from three to five feet, and sow the seed in the above proportion, and rake it in evenly, lengthways of the beds, being careful to cover

the seed well among the mould. Keep the beds at all times very clear from weeds, and when the plants are up three inches high, thin them out, leaving the plants standing at five or six inches apart for a full bulbing crop; but would recommend the leaving a bed, or part thereof, thinned only to three inches, in order to allow for drawing young Onions for present use, by successive thinnings, to the above distance. The plants will begin to bulb in June, and attain full maturity in August, which is discovered by the leaves beginning to turn yellow and decay, and the shrinking of the neck, when they may be pulled up, spread on a compartment of dry ground in the full sun, to dry and harden completely, turning them over every two or three days, and in ten days or a fortnight, they will be ready to store up for winter and spring use. The grossest part of the top must be cleared off previously to storing, and frequently turned over and the decayed ones picked out.

Onions should be grown at twice, that is to say, the seed should be sown late in the summer, and the small bulbs so produced planted the following spring, and they will be found much more superior in size than when grown the same year; which circumstance may be accounted for on this principle, that the bulb generates the first season the sap or vegetable blood which composes the leaves and roots the following year, consequently it possesses much more strength and vigour than the seed.

The best sorts for this purpose are the Spanish and Portuguese. In the middle of June is the best time to sow; for this purpose choose a dry compartment of ground, in the shade, and where the soil is poor, and after digging it, tread it into beds four feet wide, and sow the seed thick, allowing three ounces for every 120 square feet. Keep them clean from weeds, but never thin them, and when they ripen in autumn they will not be larger than peas; gather them and dry them thoroughly, and put them by till spring, when they are to be transplanted.

The ground, both for this crop and the spring sown ones, must be rich and mellow, and of a loamy nature. Exhausted ground must be enriched with well-consumed stable dung, and not such as is recently taken from the stable. The manure should be spread on the ground in autumn, and the ground well dug over twice or thrice in winter, to mix and incorporate the soil and manure. In the beginning of March, or more properly, just at the time the bulbs show an inclination to vegetate, dig as much of the plot as will serve for one bed, and immediately plant it, first stretching a line lengthways on one edge of the bed, then, having the bulbs in readiness, place them along the line on the surface, six inches apart, without inserting them, and immediately cover them with fine mould, rotten dung, tanners' bark reduced to mould, or any other light compost, about half an inch thick, and then remove the line six inches, and plant another

row in the same way, and so on till the whole is complete, and should the weather prove dry, water them gently now and then. The plants will soon begin to appear through the covering, when the soil may be stirred about them by light hoeing, being careful at the same time not to cut or wound any of the bulbs in the operation. They will be at their full growth about the same time as the spring-sown ones, and the same criterion is to be observed as to their maturity, after which they must be managed in the same way in all respects.

To have young Onions to draw off in spring, for salads, &c. the Deptford and Strasburg are most proper sorts of the bulbing kinds, but the Welsh is the most hardy. For this purpose allot a spot of ground that is rather more light than that for the summer crop, and lying on a dry subsoil, and in a warm sheltered situation, and the beds may be three or four feet wide, to suit convenience; the best time for sowing is the same as that for cabbage seed, viz. from the fifth to the twelfth of August, making a general rule to sow both on a day, if all circumstances allow. Distribute the seed very thick, and rake it in evenly, without treading, as recommended and practised by some.—When the plants are come up, weeding must be carefully attended to, before the weeds spread and over-run the ground, but the plants should not be thinned, but remain thick for their chance in winter, and to be thinned by degrees as required for salads

in spring.—The Welsh Onion must be sown and managed in the same way, but it will lie down in winter, and rise again in spring, in February and March. Any of the bulbing kinds remaining unthinned at spring, in April or May, should be thinned to six inches distance, and kept clear from weeds, and they will form ripe bulbs in June and July.

To procure Onion seed, October is the best season to prepare for it, by selecting some of the largest, soundest, and firmest bulbed Onions possible, and after choosing an open situation, dig the ground evenly, and tread it into beds four feet wide, and draw three drills four inches deep on each bed, and insert the bulbs at the bottom, a foot apart, and immediately cover them in. They must be kept clear from weeds, and they will soon shoot up into seed stems, when they will require to be supported with stakes and bands, and they will ripen seed in August and September, when it must be cut, placed on a cloth, &c to dry and harden thoroughly, after which it must be rubbed out and put into bags for use.

In respect to the culture of the Potatoe Onion it is propagated by the root, which should be planted on an open compartment of rich ground that lies dry, and having dug it, form it into beds three or four feet wide, and plant three rows on each bed, placing the bulbs a foot apart in the rows. Instead of inserting the bulbs within the ground, place them on the surface, and cover them with light mould, tanners' bark, or well-

rotted dung, just so as to leave the crowns of the bulbs seen. They will require no further care till they have shot up their tops two or three inches high, when they will require to be hoed up the same as potatoes, and kept clear from weeds, until they are taken up. The smallest Onions swell to a large size, as well as yield off-sets, but the middle-sized and larger bulbs always produce the greatest clusters. It is a custom in the West of England to plant on the shortest day, and take up on the longest.

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### ORACH.

This is a hardy annual, rising three or four feet high, with oblong variously shaped leaves, cut on the edges, thick, of a pale-green colour, and of a slightly acid flavour. It produces its flowers in July and August, which are of the same colour as the foliage. There are two varieties, the White and the Red.

The leaves and tender stalks are used as Spinach, but the stalks are good only while the plant is young; yet the larger leaves may be picked off in succession throughout the season, and the Spinach thus procured is very good and tender.

This plant requires a light, rich soil. It is propagated by seed, which should be sown in



August or September, in drills, from a foot to eighteen inches asunder, and the ground raked evenly over, and afterwards kept clear from weeds during the autumn, and in the spring the plants must be thinned out to six inches apart in the row. The crop may be gathered from the time it is strong enough, till it runs to flower, when it may be considered over.

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### PARSLEY.

This is a biennial plant, the root leaves of which are compound, and much curled in some varieties.—The flowers appear in June, and are of a pale-green colour.

#### *Varieties.*

There are three varieties of this plant: the Common, or Plain-leaved; the Curled thick-leaved; and the Hamburgh.

#### *Use.*

The leaves of the two first sorts are used as pot-herbs, and also as a garnish; and the third is esteemed for its large, white, carrot-shaped roots, which are generally served at table in autumn and winter like parsnips.

#### *Propagation of the pot-herb kinds.*

One sowing of the pot-herb kinds in spring will generally furnish supplies of leaves all the year

round, till the following spring. The seed may be sown in rows along the edge of any compartment, but where large supplies are in demand, a much better way is to sow in beds, in rows a foot asunder. Small drills should be drawn an inch deep and two inches broad, and the seeds dropped pretty close and covered about half an inch deep; they will be up in about three weeks, and when they are an inch high they must be thinned to an inch and a half apart, and when they are two or three inches high they may be gathered as wanted for use. At the end of September the tops must be cut off close to the ground, in order that they may form young stocky heads, of leaves before winter. It is adviseable to protect them on the approach of frosty weather with haulm or reed pannels laid upon branches of birch, or other light covering. A fresh sowing must be made every spring.

March or beginning of April is a proper time to sow the Hamburgh Parsley. Any common soil that is deep and dry will suit it. It may be sown either in drills or broad-cast, in beds four or five feet wide, and raked in evenly. When the plants are come up they should be kept clear from weeds, and thinned out six or eight inches apart, to give room for the root to swell, for use in autumn and till the following spring. Some roots should be taken up on the approach of frost, and preserved in sand for winter use.

*To procure Seed.*

Any of the old roots will run to stalk in spring, and produce plenty of ripe seed in July and August.

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**PARSNIP.**

This is a biennial plant, well known; has large smooth leaves of a light green or yellowish colour.

*Use.*

The Parsnip has long been an inmate of the garden, and was formerly more esteemed than at present; yet, however, it forms a vegetable dish to salt meat and salted fish.

*Propagation.*

This plant likes a rich, light, deep soil, that is free from stones, and should be dug or trenched before sowing at least two spits deep, and if manured at the same time, the manure should be well rotted and worked well among the soil.

February or March is a proper season to sow the seed. The ground should be formed into beds five feet wide, and sown in drills lengthwise the bed, five rows on each, or broad-cast, allowing *half an ounce* of seed for every hundred feet. The seed must be raked in, and when the plants are up two inches, they must be thinned out to

nine or ten inches apart, and kept clear from weeds afterwards, until the leaves cover the ground. The roots will be at full maturity by the end of October, as the decay of the leaf will indicate, when only a portion should be dug up, and the tops cut off, and the roots placed in sand under cover, for use in hard frosty weather. The rest will keep in the ground until spring, without danger of being hurt by the frost, and will be better than if taken out. In February, when they begin to shoot, they must be taken up, their tops cut off, and the roots preserved in sand, and they will keep good till the end of April.

#### *To save Seed.*

Some of the largest roots must be planted in February, at two feet apart, and they will shoot up to stalk and produce ripe seed in autumn.

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#### PEA.

This is a hardy annual. It is a climbing plant, with the pods commonly produced in pairs, and the seeds are the parts used.

#### *Use.*

The use of the pea is well known in cookery to almost every class of society. The Sugar Pea has the inner tough film of the pods wanting;

and such pods are boiled while young, with the seeds or peas in them, the same as kidney beans.

### *Varieties.*

The varieties of the pea are very numerous, the principal of which are:—Mason's Early Frame; Mason's Double-blossomed; Early Golden Hotspur; Nimble; Early Golden Charlton; Common Charlton; Dwarf Marrowfat, Green Marrowfat, and Tall Marrowfat; Royal Dwarf; Prussian Prolific; Pearl; Large Egg; Large Royal Oak; Spanish Moratto; Dwarf Blue Imperial; New Long-bodied Imperial; Tall Dutch Sugar; Dwarf Dutch Sugar; White Prolific; White Rounceval; Spanish Dwarf, or Fao; and Leadman's Dwarf.

### *Estimate of Sorts.*

These varieties differ from each other either in colour of the blossoms, height of the stalk, modes of growth, hardiness to stand severe weather, or flavour of the fruit. The Charltons are all hardy peas, very early, great bearers, and excellent for the table, and are inferior to few, either for early or main summer crops. The Frame, if sown on a warm border, will come up a few days sooner, but will not yield so well. The Hotspur is a hardy prolific Pea, and comes in about the same time as the Charlton, and about a fortnight before the Marrowfat. The sorts above mentioned are the most proper for early crops, to

come in in May and June, and for late crops to come in in September or beginning of October. For the main summer crops, the Egg, the Moratto, the Prussian Blue, the Rounceval, and Large Sugar Peas, are the most suitable, and may be sown freely from the beginning of March to the end of April, and in smaller crops till the beginning of June. For late crops, in addition to the early sorts mentioned, the Dwarf, Dutch Sugar, Spanish Dwarf, and Leadman's Dwarf, are very suitable. Leadman's Dwarf is a good bearer and a delicious Pea, but the fruit is long in coming in, on which account it ought not to be sown later than the last week in June. If it is sown in March, April, and May, it will be later than the Charltons, sown six weeks after. The Charltons and Hotspurs may be sown for full successional crops, from the beginning of May to the beginning of July, which last sowing will make returns in the autumn.

In respect to the time of sowing, much that relates to it has been observed in the *estimate of sorts*. It is the practice of many people to try for an early crop by sowing in warm situations in October, or November and December, and after a great deal of trouble and anxiety to protect the crop from the inclemency of the weather, it more frequently happens that their trouble, anxiety, and crop, are all lost together, than otherwise, and they are no forwarder than those who never sow till the middle or end of February, and the fruit of such is seldom a week later than those sown in

October, but frequently surpasses them in both time and quantity. The only remarks that can be here given, in addition to what has incidentally been said, respecting the time of sowing, is, that a successive crop of the same sort of Pea should be sown as soon as the preceding appears above ground, and not before, but a later sort and an early sort may be sown at the same time, and the late will come in succession.

The pea will grow on almost any soil if it be rich and a good depth. If the ground on which peas are sown require manure, it must be well rotted, for recent dung does more harm than good, and the soil for the early crops should be very dry; but for summer and late crops a rather moist soil will be most suitable.—The situation for the early crops should be sheltered and the aspect sunny; but, for main summer crops, the situation should be open, and for late crops return to a sheltered sunny border.

For early sorts sow on the surface of the ground, without drawing drills, in rows three feet apart, and scattering the peas about six inches broad, draw the soil on both sides the row upon them with a rake, covering them about an inch and a half deep. For summer and main crops draw drills two inches deep, six broad, and according to the sort, from four to six feet asunder, and draw the earth over them in dry weather three inches thick, but in moist weather two will be enough. As to the distance the peas should lie in the row, must depend upon their size and

season; the Frames at an early season three in an inch, but at a later season two will do; the Charltons, Hotspurs, and Dwarf Marrowfats, two in an inch; the Prussian Blue, and middle-sized sorts three in two inches; the Large Marrow-fat Moratto, the Rounceval, and most large sorts an inch and a half apart.

As the early crops appear the soil must be drawn over them, and as they advance from half an inch to three inches high, and when the weather is dry, draw the earth to the stems, and continue gradually as they ascend, and at the same time cut down all rising weeds between the rows.

When the plants have advanced to from six to ten inches high they must be rodded. For this purpose branchy sticks must be provided of such a height as the sort requires; for the Frame and Leadman's Dwarf, three feet; for the Charlton and middle-sized, four or five feet; for the Marrow-fat and larger kinds, six or eight feet; and for the Rounceval, nine or ten feet.—In placing the sticks, set them in the ground close to the row on both sides, and lean them outward at top so as to leave them wider at top than bottom. If in the course of summer dry weather should occur, watering will be necessary, and particularly so if the plants are in flower or the fruit swelling.

Early crops are frequently gathered too soon, or when the peas are too young, for the sake of having them at table as soon as possible. In all cases they ought to be gathered while the peas are green and tender, yet they may be pretty



plump. None should be left to grow old, as that would prevent the young pods filling into full perfection, and shorten their duration.

In order to procure good seed, sow as many as is supposed will be wanted, on purpose, and let them stand till the pods attain full maturity, which is indicated by the seed turning brown, and the peas hardening, when they may be taken up for thrashing out, cleaned, and stored for use.

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## PENNYROYAL.

This is a hardy perennial plant, the stem trailing, and the leaves smooth, ovate, and small. It is used in different parts of cookery, and for distilling pennyroyal water.

It is propagated by parting the roots, by off-set young plants, and by cuttings the same as mint. (See that article.)

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## POTATOE.

### *Use.*

This is a plant so well known, (at least the tubers of its root,) and its use so great, as to leave me at a loss for words to express its value. It is the most useful and most common vegetable

grown, so much so as to be found at table, in one way or other, every day in the year, and scarcely a garden is to be found without it. It is commonly eaten plainly boiled, and in this way is excellent; they are also baked, roasted, and fried. Puddings are made with the flour of the potatoe, and a moderate proportion of wheat flour, nearly equal to those made of millet; bread of an excellent quality may be made of it; indeed, it in a great measure serves as bread to some of the peasantry in Ireland.

#### *Varieties.*

The varieties of Potatoes, or at least the names of the different sorts, are as numerous as the villages in England, every one having its peculiar or favourite sort, and in almost every town a fresh name, so that any list that could be given, would most certainly be incorrect and of no use; unless a few sorts that are familiar to most people, and particularly to the London seedsmen, from whose catalogues the following list is taken: (viz.) Fox's Seedling; Early Manly; Early Mule; and Broughton Dwarf; the most proper sorts for the first early crop. The Early Kidney, good flavoured, early, and keeps well; the Nonsuch, early, and a good bearer; and the Early Shaw, is a good early sort, good for general use, and are proper for second crops. And for main crops the following sorts are considered as being very suitable, and shall arrange them according to their order

of ripening:—Early Champion, generally cultivated, mealy, and a good bearer; Red-nosed Kidney; Large Kidney; Bread-fruit; white, mealy, and a good bearer; Lancashire Pink Eye; Black Skin; white, mealy, and good; Purple; productive, mealy, and keeps well in the spring; Red-apple; mealy, and keeps best of any.

#### *Propagation.*

The potatoe is propagated by various ways; but the most common and best mode is that by cuttings of the tuber for perpetuating the varieties, and that by seed for procuring them.

#### *By Seed.*

In general the apples of some choice variety are gathered in autumn when they are ripe, and the seeds washed out clean, dried, and preserved till spring, when they may be sown in drills ten inches apart, very thinly and covered lightly. March is the best time for sowing. When the plants are up two or three inches, they must be thinned out to four or five inches apart, and suffered to remain in the ground till they are quite ripe, the indication of which is, their foliage turning yellow and decayed; when they must be taken up, and preserved for planting the following spring in the usual way. At the end of October, they will be at their full growth, when they must be taken up, and the tubers will be found large enough to determine their properties, the considerations of which are as to flavour, size,

shape, colour, fertility, healthiness, earliness or lateness, rejecting or retaining them accordingly.

*By Portions of the Tubers.*

Is and ever will be the best method for general practice. In cutting the potatoes into sections or sets, the crown or watery end of the tuber should be rejected, as being apt to run too much into top, having the eyes small and in clusters. In dividing the tuber, not more than one good eye ought to be left to each set, and in general the crop will be found greater than if two were left.

*Planting and Subsequent Culture.*

The different modes of planting potatoes is not quite so numerous as the different sorts, yet almost every planter differs in some respect or other in his practice.

The soil best suiting the potatoe is a light fresh loam without manure, if they can be grown to answer the desired end, as on such they are much better flavoured. The soil should lie dry, as they always grow sickly and the tubers are watery and scabbed in wet ground. If the soil be poor and exhausted it must be manured. Mellow dung will least affect the tubers, and littery manure produces the earliest and largest crop.

The season of planting depends upon the state of the ground being wet or dry, and the spring being forward or late. The last fortnight in March and the first in April, is the best season for planting potatoes of all sorts, early and late.

If the ground be manured, having the dung

spread on the surface, begin at one side, and if convenient, either the east or the west, and dig as much as will serve for one row, then stretch a line across from north to south, and with a blunt-ended dibble insert the sets, if early ones, about six inches apart, and three deep, and fill the holes in immediately; then proceed to dig for another row, if for early ones, about twenty inches, but if for main crops two feet or two feet six inches, according as the ground is rich or poor, and from ten to twelve or fourteen inches apart in the row, and so on till the whole is complete; the ground being left even, never wilfully tread upon it till the potatoes are up; the ground must be hoed over to cut down all rising weeds, performing this-work on dry days.

When the plants are advanced from six to twelve inches high, they must have the earth drawn with a hoe on each side to the bottom of their stems, which will both strengthen their growth and increase below. When the plants have been thus hoed up to the stems about a fortnight, the flat spaces left between the rows by drawing up the soil to the bottom of the stems, should be forked over to loosen the ground about the roots, which will be of great advantage to the crop. After this the plants will require but little more attention until the time of taking up. Some people make a practice to cut off the tops when about half grown, a practice of all others the most erroneous, as the leaves are the organs for transmitting the beneficial influence of the

sun and air to the roots, which is most necessary to the free and perfect growth of the tubers.

### *Taking the Crop.*

In June and July tubers of the early sorts will be advanced to a sufficient size for present use, though still small; a few therefore only should be taken up at a time as wanted for immediate use, as they would not keep good more than a day or two at farthest. In September they will be grown to a larger size, and may be taken up in greater quantities, still not in quantities for keeping a length of time. The main winter crops should continue in the ground till they are quite ripe, which is indicated by the stalks beginning to decay, which will be in the latter end of October or beginning of November, when they may be taken up wholly and stored for winter and spring use. In forking up care should be taken to clear the ground both of the large and small ones, otherwise they will be found troublesome in the ground the year following.

### *Preserving through the winter.*

The tubers, after they are taken up, may be preserved through the winter either in some subterraneous apartment and covered with straw, to exclude the air, damp, and frost, or in pits, (as they are called in some parts of the country,) which is a good method of preserving potatoes through winter. It is a practice so well known

to almost every labourer in the country as to render any directions on that score useless, only, that instead of digging pits in the ground to hold them, they are much better laid on the level surface, and afterwards covered with straw and soil in the usual way.

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### PURSLANE.

This is an annual plant, with a round, smooth, rather procumbent stem; the leaves fleshy and somewhat wedge-shaped; flowers appear in June and July, are yellow and sessile.

#### *Use.*

The leaves and young shoots are used in spring as salads, and as pot-herbs and pickles. It was formerly much more esteemed than at present.

#### *Varieties.*

There are two varieties cultivated, the Green and the Golden; but the Green is most esteemed.

#### *Propagation and Culture.*

Both sorts are raised from seed, which should be sown on a warm border, in the middle of May, either in drills, nine inches apart, or broadcast; and for a bed containing sixteen square feet one-eighth of an ounce will be sufficient. When a

continued succession is required, a little seed should be sown once a month, from May to August. The plants will soon come up, and must remain where sown, and in dry weather watered frequently. The shoots will be fit to gather when from two to five inches high. If cut low, the bottom part will shoot out again and produce a succession.

*To save Seed.*

If any of the first sown plants are left to run, they will produce ripe seed in autumn.

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## RADISH.

This is an annual plant, the leaves of which are rough and divided transversely into segments, of which the lesser ones are more remote. The root is fleshy, and in some varieties fusiform, in others sub-globular, and black, purple, yellow, or white on the outside, but white within; the flowers have large dark veins, and are of a pale violet colour.

*Use.*

The roots of this plant are the parts used, and eaten raw in spring, summer, autumn, and winter. The young seed leaves are often used as small salading in spring, and the seed-pods, while young and green, are pickled, and considered a good substitute for capers.



*Varieties.*

There are several varieties—as the Scarlet or Salmon coloured; Short-topped; Scarlet; Early Frame Scarlet; Purple; Long White; White Russian; the White, Early White, the Pink, and Yellow Turnip-rooted; and the White Spanish, the Oblong Brown, and the Black Spanish.

*Estimate of Sorts.*

The spindle-rooted kinds are the most proper for the first crops; and the turnip-rooted sorts as secondary, and summer and autumn crops; and the White Spanish, Oblong Brown, and Black Spanish, for winter supplies.

*Propagation and Culture.*

All the varieties are raised by seed, which should be sown on light mellow soil, well broken by digging, and for sowings made between the middle of October and the same time in February, the situation should be a dry sheltered border, lying open to the full sun; and from the middle of February to the end of March, any open spot will do; and as spring and summer advances, the situation must be cooler. A small quantity of the lesser growing sorts may be sown amongst some of the broad-cast crops of larger growth, such as Spinach, Lettuce, and Onion, or in drills between rows of beans or peas.

For the first, or principal early crop, the seed

should be sown in the latter end of January, or beginning of February. From this time, or the latter end of February, sowings for successional crops should be made every ten days or a fortnight, till the end of May, as well the White and Red Turnip-rooted as the Spindle-rooted kinds. Some of the winter sorts, as the White Russian, White Spanish, and Black Spanish, should be sown at different times from the beginning of June to the end of August, to provide a supply for autumn and to stand the winter.

Each sort should be sown separate, either in drills or broad-cast, considering the latter the best, and for a bed four feet and a half wide by twelve long, two ounces of seed will be required. They should never stand too thick, as that tends to make the tops run and the roots stringy. The seed should be well raked in, full half an inch deep, being careful not to leave any on the surface to attract the birds, as they frequently find it soon enough to do considerable mischief. If sown in drills, the drills should be half an inch deep and three inches apart, for the Spindle-rooted kinds; for the small Turnip-rooted, three-quarters of an inch deep and five or six inches row from row; and for the Black Spanish, six or eight inches row from row, as it grows as large as a middle-sized Turnip. When they are up and have got into the first rough leaf, they must be thinned out to from one to two inches apart, for the Spindle-rooted kinds, and the Turnip-rooted kinds to from two to six inches, according to the

respective sorts. In dry weather water should be plentifully supplied, which will both cause them to swell quick, and be mild and crisp.

Those crops sown to stand the winter will, besides being favoured with a warm situation, require a little protection, and that according as the weather is. A mat supported on a few thorns will suffice, which must be taken off in the day time, in open weather, and replaced at night. Such seed as is sown in spring, whether up or not, if frost is apprehended, the ground should be covered with either clean straw or dried long haulm two or three inches thick, or with mats, supported on thorns, laid over the bed. This covering will by its warmth promote the germination of the seed, and will also keep off the birds. The time for removing or renewing the covering must be regulated by the weather, as the plants should be exposed to the open air at all times when it can be done with safety. If the weather should be cold without frost, the covering should be taken off during the day, and put on again towards evening; and if the weather should be sharp and frosty, it must remain on day and night till the plants are got into rough leaf, and afterwards occasionally, till the weather is settled and temperate, and when danger of frost is over the covering must be wholly discontinued.

#### *Gathering for Pickling.*

Radish pods should be taken for pickling while of plump growth and while young and green.

*To save Seed.*

To save seed procure a quantity of the finest plants in April and May, when the main crops are in perfection. The plants should be drawn in moist weather, and the straightest and best coloured roots should be selected, and the leaves preserved to each plant; they must then be planted by dibble, in rows two feet and a half asunder and a foot apart in the row, inserting each root wholly into the ground down to the leaves. Each sort should be kept in different situations, as the Radish, like most others of the tetradynamious plants, is subject to spoil from impregnation with other sorts. They must have a little water and they will soon strike root and shoot up into branchoy stems, which will produce plenty of seed in September and October. In transplanting the Turnip-rooted kinds for seed, those roots which are the neatest shaped, roundest, of moderate growth, and short-topped, should be selected and planted as above, and they will produce ripe seed in autumn. As the different kinds begin to ripen seed, the principal branches should be gathered and placed in an open airy situation, towards the sun, that the pod, which is hard and tough, may dry and become brittle, so as easily to be broken in thrashing or rubbing out the seed.

## ROSEMARY.

This is a hardy under-shrub, rising from six to ten feet high. It is evergreen; the leaves are sessile, linear, dark-green above, and greyish or whitish underneath. The blossoms are of a pale-blue colour. The whole plant is highly aromatic.

*Use.*

The flowers and calyces form a principal ingredient in the distillation of Hungary water; infusions of the leaves are made in some drinks; and the sprigs are used as a garnish. In the West of England and in Wales, the sprigs are distributed amongst the company at funerals, and is also thrown into the grave upon the coffin of the deceased. This is done as tokens of remembrance.

*Varieties.*

There are three varieties of this plant, viz.—the Green, or Common; the Gold-striped; and the Silver-striped.

The Green is most common, and that most cultivated for use. A light sandy soil suits this plant best, and on such it will stand the winter better than on a rich one, partly by preventing their growing so luxuriant, and partly by not being a conductor of frost.

*Propagation.*

It is propagated both by seeds and slips. The seed may be sown either in drills, six inches apart, or broad-cast, and the seed well raked in. The slips or cuttings should be the young shoots of the same summer's growth, and should be taken off in July, at the time the lower end of the shoot begins to be a little hard; the leaves should be taken off about half-way up the shoots, when they must be inserted with a dibble into a shady border of the earth above described, as high as the leaves are taken off, at about eight inches asunder, and watered immediately and occasionally until they have taken root. They will be well rooted by autumn, when they may be transplanted into their final situation; but should recommend that work to be deferred till March or April. In their final situation they may be trained either with bushy heads of moderate growth, or, if against a fence, it may be trained to a fan fashion. This shrub is of many years' duration, always continuing in full foliage, where the exposure is not too severe.

## RHUBARB.

There are three species of this plant in cultivation, viz.—the Common; the Official; and the Bastard.

The leaves of the Common Rhubarb are blunt and smooth, with reddish veins, somewhat hairy underneath; leaf-stalk grooved and rounded on the edges; and has been the longest in cultivation.

The Official Rhubarb has large leaves, somewhat cordate, smooth, and of a light green colour. Under good cultivation they often measure four or five feet in length, including the foot stalk. This sort is esteemed the most succulent.

Bastard Rhubarb. This is distinguished from the two preceding ones by its fine palmate leaves, and is considered the true Turkey or Russian Rhubarb.

#### *Use.*

All the sorts are cultivated for the root-leaf-stalk, which are peeled, cut down, and formed into pies and tarts, in the manner of apples and gooseberries, for which it makes a good substitute. The Official Rhubarb affords the most abundant and succulent supplies for this purpose.

#### *Propagation.*

This plant may be propagated either by seed or by parting the roots, but by seed is inevitably the best mode; and seed sown in its final situation, and the plants thinned out and never removed, makes the best plantations. If sown in a seed-bed, afterwards to be removed, the seed should be sown in spring, in light, deep earth; and when the plants are up they must be kept

clear from weeds and thinned to eight or ten inches apart, and they will be fit for transplanting in autumn, and for use in spring. When the roots are divided for propagation care must be taken that a bed be retained on the crown of each section. They must be planted where they are finally to remain.

*Planting and subsequent Culture.*

In making new plantations the ground should be light and rather sandy, and trenched three spits, or as deep as the subsoil will allow, adding at the same time a good quantity of well rotted hot-bed dung. The plants, whether seedlings or off-sets of the old or divided root, must be inserted in rows three feet asunder, and the same distance in the row. They should be planted so as to leave the crowns within ground about half an inch. They will require no other culture than to keep them clear from weeds until autumn. When the leaves are decayed the ground must be cleared from rubbish and lightly forked over; after which, about three inches thick of good well-rotten manure must be laid all over the bed; and in spring, before the plants begin to grow, the ground must be forked over again, and the manure well worked in with the soil, being careful not to wound the crowns of the plants in the operation. A plantation thus made and managed, will continue good many years.

The flower-stalks should never be allowed to run to flower, but taken off as soon as they arise.



To obtain Rhubarb early in spring, a box of any convenient size must be provided, but they should not be less than three feet deep and two wide, and in length according to the demand, from four to eight feet; this must be made pretty strong and neat, with a cover or lid, and well painted some suitable colour, and it will thus answer two purposes at the same time, as a rhubarb bed and a kitchen table. When the box is ready for use and placed in a suitable part of the kitchen, and where it will be most useful, some plants, no matter what sort, old or young, so long as they are but strong enough, must be provided and placed as close together at the bottom of the box as they can be put with their crowns level. Some sand must be washed in amongst them to fill up the interstices, and covering the crowns about half an inch deep, the top of the box must then be put on and only removed to give a little water just to keep the roots moist, as they need no light at all; thus a liberal supply will be obtained for a month, and by having different boxes a succession may be had throughout the winter. A stable where horses are kept up all winter is a suitable situation for the box to stand in. By these means as much rhubarb will be obtained in eighteen inches as in twenty feet the natural way. This work may be commenced about the beginning of November, and continued till it comes in from the natural ground.

The principle upon which this practice is founded is this: that the root of every plant

that lives longer than one year contains in itself, during winter, all the sap or vegetable blood which it expends in the spring in the formation of its first foliage and flower-stems; and neither food nor light is wanted to enable it to protrude them, but simply heat and water; and if the root be removed as soon as its leaves decay, it will vegetate as strongly after being replanted as if it had retained its first position.

#### *Taking the Crop.*

In gathering the leaves a little soil should be removed from about the roots, then taking hold of the leaf-stalk, and bending it down, give it a smart twitch sideways, and it will slip off close to the root without breaking, which is a much better way than cutting them off.

#### *Saving Seed.*

If any of the strongest flower-stems are left they will produce ripe seed in July or August.

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### ROCOMBOLE.

This is a perennial plant, with compound bulbs like garlic, but the leaves are smaller.

#### *Use.*

The cloves are used in the manner of garlic, and nearly for the same purpose, but considered milder.

*Propagation and Culture.*

It is cultivated like garlic, and in every respect treated the same.— (*See that article.*)

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## RUE.

This is a perennial evergreen under-shrub, and well known in most parts of the country by its fetid smell.

*Use.*

The leaves are gathered as a medicinal simple; an infusion is frequently made and drank in a morning fasting, which is said to correct the foulness of the stomach.

*Propagation.*

It is readily propagated by seeds, cuttings, and slips of the young shoots, in March, April, or May, planted in poor soil, in a shady border, and watered till it has got root, after which it will continue many years. It should be now and then cut down, and it will furnish plenty of leaves and young shoots. Running to seed weakens the plant and shortens its days.

## SAGE.

This is an evergreen under-shrub, rising about two feet high, with wrinkled green leaves, or tinged with a dusky purple. The flowers terminate the branches in long spikes, are of a blue colour, and appear in June and July.

*Use:*

The leaves are used in stuffings and sauces, and to improve various articles of cookery.

*Varieties.*

The varieties are, the Red, the Green, the Small-leaved Green, and the Broad-leaved.

*Estimate of Sorts.*

The red and the green are the most in favour with the cook as being most agreeable in flavour; but the small green is considered best for decoctions, and the broad-leaved the most efficacious for medical purposes; however any of the sorts may be used as substitutes for any of the others.

*Propagation and Culture.*

All the sorts may be propagated either by slips or cuttings, either of the preceding or present year's growth. The outward shoots are the best, and should be cut off about six inches long and

the lower leaves detached, preserving the upper ones entire. They should be planted in May, and it is said, "they will grow every day;" and no doubt but they will do the same if planted in April and June, if set half their depth in a shady border, six inches apart, and watered. They will soon strike root and advance in growth; and if any spindle up into flower-stalks such parts must be cut down, and the plants will shoot out strong and stocky for use the same year.—In gathering sage for use, the young side and top shoots should be cut neatly off, being careful not to cut them too close, and particularly towards winter. In July the plants, both young and old, should be formed into regular heads by cutting away disorderly parts and decayed flower-stalks. They must be kept clear from weeds by hoeing the ground amongst the plants. A new plantation should be made every two, three, or four years, as may appear necessary by the plants becoming naked and decayed.

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### SALSIFY.

This is a hardy biennial, with a long tapering, fleshy white root, the herb smooth and rising three or four feet high. The leaves much resemble those of the leek; the flowers, which are of a dull purple colour, close soon after mid-day; and the seed is remarkable for its long feathery crown.

*Use.*

It is boiled or stewed like carrots, and is of a sweet mild flavour. The stalks of year-old plants are sometimes cut and used as asparagus.

*Propagation.*

The Salsify requires the same culture as the Carrot, only that the Carrot must be taken up in winter, and this may remain in the ground, except a few, to be ready in frosty weather.—  
(See the article Carrot.)

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 SAVORY.

There are two sorts of Savory cultivated; the Summer and the Winter.

The Winter Savory is a hardy under-shrub, rising from twelve to twenty inches high; the shoots are furnished with two narrow stiff leaves, an inch long, placed opposite each other at the joint, from which a few small leaves proceed in clusters. It produces whitish flowers in May and June.

Summer Savory is a hardy annual, the branches of which are slender, erect, and about a foot high; the leaves are opposite, and about an inch long. It flowers in June and July.

The Winter Savory is propagated by slips, and cuttings of the young side shoots, which may be

planted in any of the summer months, in a shady border, and watered. They will soon advance into branchy\* growth, when they may be set out either to form a close edging, or singly, fifteen inches apart.

*Propagation and Culture.*

The Summer Savoy is an annual, and is always raised from seed, which should be sown broad-cast and raked in, and the proper time is March or April; and when the plants are up they must be thinned to eight inches apart every way. The herb will be ready for gathering from June to October, when a store may be gathered and stored for winter use.

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SAVOY.

The character of distinction between this and the other close-headed kinds of Cabbage is, its rugged leaves, and between it and the Brussels\* Sprouts, by its cabbaging in large full heads.

The Savoy comes into use in November, and, if it escapes the frost, continues till it is succeeded by the Borecoles.

The varieties are—the Green; the Dwarf; the Yellow; the Round; the Oblong; and the Conical.

The Green Savoy should be sown for autumn use, it being too tender to depend upon to stand the winter. The Dwarf Savoy is much hardier

and will bear the winter frost, by which its flavour is much improved. It is most suitable for the table, from its small size; and where the whole tribe is cultivated, this must be considered the second in succession. The Yellow Savoy is the hardiest, and is equally as good flavoured as the others; and by it we are enabled to continue them through the winter.

#### *Propagation and Culture.*

The Savoy is raised by seed, and for a bed containing thirty-six square feet, half an ounce will be sufficient.

An open compartment of light rich earth should be chosen for the seed bed. If the ground be poor and exhausted it should be manured according to its defects.

The seed of the different sorts should be sown at four different times, in order to have a succession from autumn through the winter. The first sowing must be made the last week in February, for Savoys to come in in August or September. A second sowing in the last week in March, for a main autumn and winter crop. A third in the third week of April, for a successional winter crop. And a fourth in the middle of May, for a crop to come in towards the spring, and to stand longer before they run.

The ground should be well dug and set out into beds of four feet wide, and the seed sown and raked in about a quarter of an inch deep. When



the plants are up two inches high, if they stand too thick, they should be thinned out regularly to three inches asunder, and those should be taken to other ground and pricked thereon, at four inches apart, and both these and those on the seed-bed well watered. They must stand four or five weeks to grow stocky, when they may be planted out to their final situation, each crop in succession, according to its time of sowing, viz.: the first sowing in May, the second in June, the third in July, the fourth in August. They should be planted into rich open ground, in rows, for the lesser sorts and late crops, two feet apart and eighteen inches in the row, and for later and full crops two feet each way. Showery weather should be taken advantage of, if possible, otherwise the plants must be watered immediately. In taking up the plants the roots should be examined, and if clubbed or knotty, the protuberances must be cut off close. Should ground be scarce, Savoys may be planted between the rows of Beans, which will be out of the way before the plants want the ground.

As the plants advance in growth, they should be kept clear from weeds, and the soil stirred frequently about their roots, and at the same time a little drawn up to their stems, which will assist their growth, and successively bring them to full maturity in September, October, November, December, &c. and some will remain and continue sound till the end of February.

*To procure Seed.*—See the article Cabbag

## SCORZONARA.

This is a hardy perennial, rising from two to four feet high, with a few embracing leaves, and is branched at top; the lower leaves are linear, eight or nine inches long, and end in a sharp point. The flowers appear in July and August, and are of a yellow colour. The root is carrot-shaped, and at top about the thickness of a man's finger, but is tapering off to a very fine point.

*Use.*

After the outer rind is scraped off it is steeped in water, in order to abstract a part of its bitter flavour. It is then boiled or stewed in the manner of carrots or parsnip. The roots are ready for use in autumn, and continue good till the following spring.

*Propagation and Culture.*

This plant is propagated by seed, which must be sown every year, for although it is a perennial plant, its root continues good only one year, consequently it must be treated as a biennial. An open compartment of deep light soil should be allotted for this plant. In March, April, or May, the ground should be well dug, and the seed immediately sown, in drills, ten inches asunder, and for every thirty feet of drill, one ounce of seed will be required; it must be covered over about half an inch, and when the plants are up about

three inches high, they must be thinned out to six inches apart. In dry hot weather they must be copiously supplied with water. In August and September, the roots will have attained a good size, when some of them may be taken up for present use. The remaining part will perfect their growth in October, and continue good all the winter, and part of the following spring. A portion should be taken up before hard frost sets in, and kept in sand for winter. The old plant left in spring, will shoot up and produce ripe seed in autumn.

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### SEA-CALE.

This is a hardy perennial, with large radical leaves, more or less sinuated and indented, containing in the axil a bud or rudiment of the next year's shoot. The flower has a rich white appearance, and smells strongly of honey. The whole plant is of a smooth, beautiful glaucous colour, and covered with a very fine meal.

#### *Use.*

The young shoots and stalks of the unfolding leaves, when blanched by earthing up as hereafter directed, are the parts to be used, and are not at all inferior to asparagus when dressed in the same manner. They also form an excellent ingredient in soups.

*Propagation.*

This plant is propagated by seed, which should be sown in the latter end of March or beginning of April, in drills a foot asunder, and the seed dropped in singly, six inches apart, and the ground immediately raked level. The plants will soon appear above ground, when they must be kept clear from weeds throughout the summer.

The soil best suiting the Sea-cale is a light, dry, rich sandy loam, of a good depth. If the soil is not rich, it must be made so by adding some well rotted manure.

*Sowing, Planting, and Subsequent Culture.*

The ground for the plantation should be prepared in autumn, by manuring and trenching at least two feet deep, and if the ground is not naturally that depth, and light, it must be made so, artificially, by the addition of some good light hazel loam, and well-rotted vegetable mould. If the ground is not perfectly dry it must be rendered so by effectually draining it, so that no water can stand within at least a foot of the bottom of the bed, for the strength of the plants depends entirely upon the richness of the soil and dryness of the situation. When the ground has been thus prepared during the winter months, until the beginning of March, it must be formed into beds four feet wide, with alleys two feet wide; then at the distance of two feet every way, either five or six seeds may be sown, two inches deep, with-

in a circle of about nine inches in diameter; or three plants of the last summer's growth may be planted within the same space, inserting them with a dibble, leaving the crowns level with the surface of the ground. If seeds are sown, when they come up, they must be thinned out, leaving only three of the best and strongest plants in each patch. In taking up plants for planting, care must be taken not to break the tap roots, which may be prevented by inserting the spade, with which they are taken up, into the soil lower than the root, and thus bearing the spade handle down, they will be raised without injury. Attention should be had to the regulating of the plants standing, as they are to be covered, if for forcing, with blanching-pots; as both the health and beauty of the crop depends upon their standing at equal distances. They must be kept clear from weeds, and now and then watered, which is all the care they will require until November, when the leaves will be decayed, and must then be cleared away, and the beds covered an inch and a half or two inches thick, with fresh sandy earth that has lain in a heap, and been well pulverized during the preceding summer; after which, about six inches thick of leaves, that have just fallen from the trees, should be laid all over the beds, upon which a little soil should be thrown, out of the alleys, to prevent their blowing about. In default of leaves, light stable dung will answer, and no more care will be required the first year.

In the following spring the leaves, or whatever the beds are covered with, should be taken off, leaving some of the most rotten part to be dug into the alleys. The beds must then be lightly forked over, and covered with about another inch of the same sort of mould as before. Not any part of the crop should be gathered the second year, though some of the plants will come very strong. The plants must be kept clear of weeds during summer, and in winter treated exactly as before, only, instead of laying the leaves six inches thick, they must be laid twelve, and instead of soil at the top, lay a little stable litter, just to keep the leaves from blowing about; this must be allowed to remain on until the heads are ready for use, which will be indicated by their beginning to raise the covering. Care should be taken not to remove any more of the covering than where those heads are that are intended to be cut. Being thus treated, the heads will be free and well blanched, and the leaves sweet and free from any unpleasant flavour.

In gathering the crop, cut the young stems when about three inches above ground, care being taken not to injure any of the young buds below the surface, some of which will begin to swell immediately. The covering must be immediately replaced after gathering, and a succession of gatherings will be had for five or six weeks, after which period the covering must be taken quite away, and the ground forked over, which will greatly encourage and strengthen them to produce buds the following spring.

*Accelerating for Early Use.*

Sea-cale is generally desired before its usual time of coming to perfection on the natural ground, and no vegetable is more easily forced than this; neither is the flavour of any other improved by it.

As soon as the leaves are decayed in autumn, they must be trimmed from the plant, and the ground carefully pointed over, and the tops of the plants covered about three inches deep with fresh light earth, mixed with about the same quantity of coal-ashes. In about three weeks, or according to the time the crop is desired to come in, allowing seven weeks from the commencement of the forcing to gathering of the crop, as many of the plants as are intended to be forced must be covered with a regular blanching-pot; then having some fresh dung well prepared, lay a portion between and over each pot, pressing it well down, and raising it six or eight inches above the tops of the pots. The bed should be examined now and then, and if the heat should be under  $50^{\circ}$  it will not be sufficient to excite the plants, and if above  $60^{\circ}$  it is too strong, and will injure them. In the course of a month after being covered up, the young shoots will have arisen six or eight inches high, and will be fit for the table. Should flower-stalks arise they must be cut away, and a successive crop of shoots will arise, and continue eight or nine weeks from the commencement of forcing. The proper heat

is 55° and should never be higher. Previous to beginning to force, spread a little salt over the ground about the plants, in order to destroy worms, which, after forcing is commenced, frequently spring up on the surface and spoil the young shoots. If the weather should come very severe the dung will require to be renewed every five or six weeks, if not, seven or eight will do. The exhausted part must be taken away, and the other mixed with fresh dung or leaves. When the plants cease to produce any shoots the litter must be taken quite away, and the plants dressed, and the ground neatly dug over, in order to encourage the leaves to grow, and acquire and return nutriment to the root for the next year's buds.

In gathering the crop remove a part of the earth, leaves, or whatever the plants are covered with, quite down to the crowns, and cut off the heads or shoots, and slip off the stalks of the leaves.

Any of the plants not having been cut will run in the spring, and produce plenty of seed on every stem.

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## SHALLOT.

This is a bulbous-rooted perennial, the leaves of which rise in tufts like those of chives, but larger, and the root separates into cloves like



those of garlic, and much milder in flavour than any other of the alliaceous tribe.

The cloves are used in the manner of garlic and onions. In a raw state they are sometimes cut small and used as a sauce to steaks and chops, and sometimes a clove or two is put into winter salads.

The shallot is propagated by parting the roots into off-sets. These should be planted in October, in rows nine inches apart, and six inches in the row, placing the bulbs on the surface of the ground, instead of inserting them two or three inches deep, as is the usual way. They must then be covered with a compost of light soil, coal-ashes, or tanner's bark, in equal quantities, laying it in small ridges lengthwise the beds, and so as to cover the bulb about an inch deep, just to exclude them from the air. The most intense frost will not hurt them, but too much wet will. When the roots begin to grow, and have got hold of the ground below the soil, the covering then must be removed from off them, leaving the bulbs wholly exposed; by this means of culture the form of the bulbs will much resemble the onion, being much more round and short than usual, and the crop much superior both in quality and quantity.

When the bulbs begin to decay, they must be taken up, dried, and stored for use. Any of the roots may be taken up in June and July, for immediate use, but not until August for storing.

## SKIRRIT.

This is a perennial tap-rooted plant, the lower leaves of which are pinnate; the stem rises about a foot, and is terminated by a number of white flowers in July and August. The root is composed of fleshy tubers about the size of a man's little finger, and joined together at the head or crown. They are sweet, and when boiled and served up with butter are considered excellent.

*Propagation.*

A light moderately rich soil suits this plant best. It is propagated by seed, which should be sown between the 20th of March and the 20th of April. They should not be sown sooner than the former period, as the plants if too forward would be apt to start to seed in summer. It should be sown in drills eight inches apart, in an open compartment, and when the plants are two inches high, they must be thinned out to five or six inches asunder. Some may be taken up for present use in August, September, and October, but they will not be in full growth till the end of autumn. They will continue good all winter till spring, when the stems will run.

Any of the old plants will shoot in spring and ripen seed in autumn.

## SORREL.

This is a perennial plant, with scaly bulbous articulate roots and ternate obcordate leaves; the flowers appear in April and May, and are of a pale-green colour, rising singly from the root.

*Use.*

The leaves form a grateful addition to salads, and communicate an agreeable relish to dishes of greens.

*Propagation and Culture.*

The plant delights in a moist soil and shady situation, and is propagated by dividing the roots, and that any time in the former part of summer. By cropping the herb of a part of its foliage two or three times in the season, a supply of young leaves will be obtained from April to October.

## SPINACH.

This is an annual plant with large leaves, the stems hollow, and, when allowed to produce flowers, rises from two to three feet high. This is a diecious plant; that is, the flowers are male and female on distinct plants. The male flowers are produced in long terminal spikes, and the females close to the stalk at every joint.

*Use.*

The leaves are boiled and mashed, and served up with gravies, butter, and hard boiled eggs. The leaves may be obtained from successive sowings in the open ground at most seasons of the year, but chiefly in spring, when they are the largest and most succulent.

*Varieties.*

The varieties are the Smooth-leaved, or Round-seeded; and the Triangular-leaved, or Prickly-seeded.

These two varieties are cultivated at two different seasons. The Round-leaved sort is most proper for spring and summer, its leaves being thicker, larger, and more juicy than the other. The Triangular-leaved is chiefly sown in autumn to stand the winter for the following spring use; the leaves being hardier and less succulent will stand the weather much better than the other.

*Propagation.*

The Spinach will grow upon almost any ground that any other vegetable will grow upon, but for the first early crop a warm sheltered border will suit best; but for summer crops, an open and rather moist compartment will be the best.

*The Times for Sowing*

The successive summer crops is from the beginning of February to the end of April, and thence

every week to the end of May, and from that time to the end of July once a fortnight.

The Prickly-seeded or angular-leaved must be sown at twice, in summer, to stand the winter; the first sowing to be made in the second week in August, and the second sowing in the end, and it will stand till the spring sown crops come in.

The ground for the winter standing crop should be dry, having an open aspect to the winter's sun, and the ground should be well dug, but not over rich.

#### *The Process of Sowing*

Is the same in both sorts, and at all seasons. It may either be sown broad-cast, or in drills, an inch and half deep and six inches asunder, either in one continued piece or in beds, the latter being most convenient both for culture and gathering the crop; and for a bed four feet wide (which is the most convenient width) and thirty long, sown broad-cast, two ounces of seed will be required, but if sown in drills one ounce will sow the same ground; the seed must be afterwards regularly raked in, but without treading, as sometimes recommended and practised.

#### *Subsequent Culture.*

When the plants are up and have leaves an inch broad, they must be thinned out to five or six inches asunder, and afterwards kept clear from weeds. In dry weather, and particularly the late summer crops, must be well supplied

with water, or they will start to seed before they come to any size.—Spinach may be gathered any time after it is a sufficient size, either in winter or summer, either by picking off the leaves, or taking the whole plant where too thick and close together.

The summer crops must be thinned out to seven, eight, or nine inches, as the ground is for being rich, and the crop strong. In spring the winter standing crop may be thinned to the same distance.

To obtain seed of both sorts, the best way is to sow a bed of each early in March, and when up an inch high they should be thinned out to a foot or fifteen inches apart, and they will run to stalk and ripen seed in June and July. Each sort should be sown separate, and when in flower they should be looked over, to see whether the small plants, which are easily distinguished by their farina upon the blossoms, stand too close, and if they do, they must be thinned out, leaving only sufficiency to fertilize the females, otherwise the blossoms will be abortive. When the seed is ripening it should be looked over, and the lower seed gathered, as it would shake and be lost before the whole is ripe.—It must be dried as gathered, and put by for use.

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### TANSY.

This is a perennial plant, rising two or three feet high, with deep green finely divided leaves;

the flowers are yellow, and appear in terminating corymbs in July and August. The whole plant is aromatic.

*Use.*

The young leaves, shredded down, are used to give colour and flavour to puddings.

*Propagation.*

Tansy may be propagated both by slips and parting the roots; it may be planted two inches deep, and fifteen inches asunder, in any part of the kitchen garden. The plant continues many years, but should be cut down in summer to encourage a succession of young leaves on the stem.

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## TARRAGON.

This is a perennial plant, with a branching stem a foot and a half high, and has narrow leaves, green on both sides. The whole plant has a fragrant smell and aromatic taste.

*Use.*

The leaves and tender tips are used as an ingredient in pickles, and a simple infusion in vinegar makes a pleasant fish sauce.

*Propagation.*

Tarragon should be planted in a dry soil, otherwise it would be apt to perish in winter. It is to

be propagated either by off-set bottom slips, or sections of the root and top, in spring or autumn; or by slips or cuttings of the young stalks or branchy shoots, in July and August. They must be planted in beds or borders, from six to ten inches apart, and well watered, when they will soon strike fresh root, and be fit for gathering the same year. When it begins to run, and seed is not wanted, it must be cut down, and it will produce fresh young shoots.

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### THYME.

There are two species cultivated; the Common or Garden Thyme, and the Lemon Thyme.

The Common, or Garden Thyme, is a low evergreen under-shrub, seldom rising more than a foot high. Of this there are three varieties—the Broad; the Narrow; and the Variegated; the latter of which is chiefly grown for variety's sake.

The Lemon Thyme is a low under-growing evergreen shrub, trailing, and seldom rising above six inches high. It is easily distinguished from the other by its strong smell of lemons.

#### *Use.*

The leaves and young tops are both used for the same purposes, as in stuffings, soups, and sauces, yet the common is most esteemed.



*Propagation.*

The Thyme is propagated both by seed and parting the root, but the former is the most eligible way.

The seed should be sown in March or April, in a bed of light earth, either broad-cast or in drills six inches asunder, and slightly raked in. They must be well watered in dry weather, both before and after they come up. When they are from three to four inches high, they must be thinned out to six inches every way, and give them plenty of water. Those taken out may be planted along the edges of the borders, three inches apart, and they will form at once a close neat edging. Seedlings will come in for use the same year.

When the plant is to be propagated by parting the root, sections of the stool should be taken, root and branch, and planted in light earth, and shaded and watered, when it will soon take fresh root. Some of the tops should be cut and preserved by drying for winter use.

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**TURNIP.**

This is a biennial plant, the root-leaves of which are large, of a deep green colour, very rough, jagged, and gashed; in the second season it sends up a flowerstalk with leaves embracing the stem, smoot, glaucous, oblong, and pointed.

*Use.*

The root, after having the rind taken off, is boiled and mashed as a dish, in broths, soups, or stews, or entire, for which purposes it is much cultivated in most parts of Europe. In spring the young shoots are gathered, and dressed as greens or spinach, to which they are not at all inferior.

*Varieties.*

The varieties chiefly cultivated are: the Early Dutch; Early Stone; Common Round White; Large Round White; Yellow Dutch; Green-topped Large Round White; Red-topped Large White; Tankard, and Swedish.

The Early White Dutch, and the Early Stone, are the properest both for the first early and successional crops. The Common Round White, and the Large Round White, are the most eligible for the main summer and autumn crops. The Large White Green-topped, the Large White Red-topped, and the Yellow Dutch, are the most proper for autumn and winter consumption. Small portions of the other sorts may be sown to answer particular demand.

*Propagation and Subsequent Culture.*

A light moderately rich soil suits the turnip best. It should be well dug, and if found necessary to manure, it should be done at the latter end of the year, or if done at the time of sowing,

the dung should be well rotted and buried beneath the surface. Fresh dung should never be used if possible, as nothing tends more to the encouragement of the fly than it does, and I firmly believe that farmers in general lose their crops more through this circumstance than any other. It is the practice of most farmers to plough their land over three, four, or more times, in order to pulverise the soil; and previous to the last time ploughing, lay on a good dressing of recent stable yard dung, and partly plough it in, the coulter of the plough drawing it in heaps, and thus leaves it partly out of the ground, and these heaps form a nidus for the fly, and also leaves some part of the ground without any manure at all; whereas if they were to apply some good well-rotted manure to the land previous to beginning to plough at all, and work it well amongst the soil, they would incorporate, and thus the soil would be in much better condition to support vegetation, by which means the plants would grow much quicker, and sooner be out of the way of the fly.

By successive sowings in spring and summer, the Turnip may be obtained most parts of the year. For a succession crop, to draw in the latter end of June or beginning of July, the seed should be sown at the latter end of April. For a crop to come in in July and August, the seed should be sown at the latter end of May. For full crops in autumn and winter, the seed should be sown at two or three times in June and July.

And for a crop to stand the winter for the opening of spring, the seed should be sown in the beginning of August, and the Turnips from this sowing will continue longer in spring without running, than those sown in July. In summer, showery weather should be taken advantage of, in which case a few days under or over the prescribed time will make no difference. The seed should be sown towards an evening, after the heat of the sun is declined, during the summer, and if the ground should be very dry at the time, a little water should be given.

In sowing, the ground should be well broken by regular digging and neatly levelling, to receive the seed. Then, being provided with some good bright seed, allowing half an ounce to every hundred feet, the ground must be sown regularly all over, and immediately raked in, and in summer, if showery weather happen, it will soon be up, when it must be watched to see if the fly attack it, and if it does, the bed must either be watered immediately and a little quick lime sprinkled over the plants, or done in the morning before the dew is off. This is the most effectual remedy I am acquainted with, at least, the only one I can place any confidence in.—Radish seed sown amongst Turnips will prevent the utter destruction of the crop, the fly preferring them, and thus the Turnip will soon get out of the way.

When the plants have got into rough leaf, they should be thinned to eight inches' distance every way, and at the same time cleared from weeds.

When the roots have increased to any size, a part may be drawn as wanted, thinning them so as to leave those intended to reach full maturity at least twelve inches apart every way.

On the approach of frost, some roots must be gathered and the tops cut off to within an inch of the Turnip, but the root must be put into the shed or cellar and covered with sand; they will thus keep good, and be ready for use all winter.

*To save Seed.*

In February select some of the best, well-shaped, full-grown roots, of the autumn or winter crop, these must be planted two feet apart, drawing the drills a good depth, then with a dibble make a hole for the reception of the root, and insert it with the main root down to the bottom of the drill, and earth them well over. They will shoot into large branching stalks in summer, and the seed will ripen in July and August.

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WHITE BEET.

This is a hardy biennial plant, the leaves of which are larger than the Red Beet, and very thick and succulent. It produces its flowers in August and September, which are of a greenish colour.

*Use.*

The leaves of the plant are the parts to be used, and are boiled like Spinach or put in soups.

*Varieties.*

The principal varieties known in gardens are—the Common Small-rooted Green-leaved; the Common White Small-rooted; and the Great White, or Swiss.

*Propagation.*

All the sorts are propagated by seed, and the soil for these varieties may be considerably stronger and richer than that for the Red and Yellow sorts, but need not be quite so deep. For a bed containing fifty-four square feet, one ounce of seed will be required.

The seed should be sown in March, either in drills, six or eight inches apart for the small sorts, and ten or twelve for the larger, or broad-cast, and the seeds raked in well.

When the plants are up two inches high, they must be thinned out to from eight inches to a foot apart, and afterwards kept clear from weeds.

The seed of this sort is procured in the same way as of the Red.—*See that article.*

## GLOSSARY

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- Alliacious*, plants of the genus *Allium*, as Onion, &c.
- Axillary*, the base or bottom of the leaves or branches, on the upper and inner side.
- Bulbous*, a bulb; a large kind of bud generally produced under ground, upon or near the roots of certain herbaceous plants.
- Capillary*, hair-like; hair-shaped plants.
- Climbing*, a term applied to plants which take the advantage of some adjoining body to raise and support themselves, as the ivy.
- Clustered*, a collection of flowers; somewhat in an egg-shaped form.
- Concave*, hollowed out like a bowl.
- Conical*, in the form of a sugar loaf.
- Corymbs*, differs from a spike, in having the flowers whereof it is composed, not sitting, but standing on its proper fruit-stalk, each of which again springs out of one common fruit-stalk.
- Divaricate*, straddling.
- Diverge*, spread wide from the stem, almost horizontally.
- Embracing*, when the base of a leaf nearly surrounds the stem.
- Fusiform*, spindle-shaped.
- Jagged*, leaves divided into lobes, which are again subdivided in an irregular manner.
- Lanceolate*, spear-shaped.
- Leaflet*, a little leaf; a single leaf; a part of a compound leaf.
- Linear*, strap-shaped.
- Lobes*, divisions nearly half way down the leaves, which are convex at the edges, and distant from each other.

*Obtuse*, blunt.

*Orbicular*, round and flat.

*Palmate*, the name applied to any prominence or gibbosity in the jaws of a flower.

*Petioles*, the foot-stalk of the leaves.

*Pennate*, a leaflet of a winged leaf.

*Procumbent*, trailing.

*Protuberances*, in seed-vessels, are occasioned by the swelling out of the seeds.

*Radius*, the semi-diameter of a circle.

*Recesses*, a cluster, in which the flowers placed along the common foot-stalk, are furnished with short proper foot-stalks, proceeding as lateral branches from the common flower-stalk.

*Segment*, the small parts of a leaf, cup, or petal, inclosed between incisions.

*Serrate*, like the teeth of a common saw.

*Sessile*, sitting.

*Sinuate*, indented.

*Spirally*, twisted like a cork-screw

*Tormentose*, cottony.

*Trailing*, lying along on the ground, and not sending out roots, as the common Speedwell.

*Tubular*, in the shape of a hollow tube, as the cup of Pevit, and blossom of the Honeysuckle.

*Terrate*, leaves growing three together from the same point.

*Umbel*, the extremity of a stalk or branch divided into several pedicles or rays, beginning from the same point and opening so as to form an inverted cone.

*Umbelliferous*, plants that bear many flowers, growing upon many foot-stalks.

*Whirls*, of branches, leaves, or flowers; exemplified in branches of the Fir leaves, of Ladies' Bed-straw, and the flowers of the Dead-nettle.



## THE FLOWER GARDEN.

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### JANUARY.

GREAT care should now be taken to protect the choicest flowering plants at this unfavourable season, particularly the principal sorts, and tender kinds in pots, which if not done before, should now be removed, in their respective pots, to places of shelter from severe frost, either in garden frames, or under awnings of mats; or, in default of such protections, let them be placed in some warm situation under a south wall.

#### *Auriculas.*

The best auriculas in pots should be well protected from excessive rains, snow, or sharp frosts: for although these plants are hardy to stand the winter fully exposed, yet by giving occasional protection, it preserves them in strength to flower in greater perfection.

The choicest varieties of these plants should always be removed in their pots, about the end of October, or beginning of November, and placed

in frames, or in a bed arched over with hoops, in a warm dry situation, in the full sun, where they can be occasionally covered when the weather is unfavourable; but let the covers be constantly off when the weather is mild and dry.

Towards the end of this month, if the weather is mild, it will be time to think of preparing to add some fresh earth to the pots of these plants.

Let some proper compost be prepared for this purpose, and, if the season is mild and forward in the latter end of this month, may dress the plants therewith; but if unfavourable weather, defer it till the next month; first clear the plants from dead leaves, and take the old earth away from the top and round the sides of the pots, as low as you conveniently can, without disturbing their roots; fill up the pot with the earth that you have prepared; and when you have finished this, return the pots to the place intended for sheltering them, as above.

#### *Care of Carnations.*

Take great care to protect your fine carnations that are in pots, from hard frost, excessive rains, and snow; for, as observed of the auriculas, notwithstanding the plants being hardy to stand the winter in the open air, it is advisable to defend the choicer sorts in bad weather, to preserve them in good strength for flowering in best perfection, accordingly.

These pots should be plunged in a raised bed of dry compost, in the beginning of winter, and the

bed arched over low with pliant rods or hoops, at that time; this will be of great advantage to the plants, if you are careful to draw mats over the arches when the weather is severe.

But if the pots were to be placed in garden frames, it would be still better, if you take care to put the glasses over them in rigorous weather; but when the weather is mild, and not immoderately wet, no covering must be over the plants, but let them have the free air at all such times, day and night.

Or in want of the above means of protection, the pots of plants should be placed in some warm situation.

#### *Care of choice Hyacinths and Tulips.*

In severe frosty weather, it would be of beneficial advantage, if the beds wherein you have deposited the choicest kinds of hyacinths and tulips, or any other curious bulbous roots, be covered, either with an awning of mats, or, in default thereof, with straw, fern, or dry long litter; but it must be removed as soon as the severe weather is over.

But when any of the above-mentioned plants, of the most curious kinds, begin to appear above ground, it would be of much advantage to have the beds arched over low with hoops, &c.; and when the weather is unfavourable, such as in severe frost, let the mats be drawn over the arches and fastened down, that the wind may not blow

them off: but when the weather is open, let them be constantly uncovered.

The finest kinds, particularly of hyacinths, tulips, ranunculuses, and anemones, merit this care.

*Planting Ranunculuses, Anemones, &c.*

Plant ranunculuses and anemones in mild, dry, open weather, if you have any now out of the ground; these now planted will succeed those which were put in the ground in October or November.

For their reception choose a dry situation, where the ground is of a light pliable nature. Let it be well digged, breaking the earth fine, and form into beds of three feet and a half or four feet wide, and rake the surface smooth, then take an opportunity of dry, mild, open weather, and plant the roots either in drills, or by dibble, in rows, six to eight or nine inches distant, and allow the distance of four to five or six inches in the rows; and plant them about two inches deep.

For the particular method of preparing the beds, and planting the roots, see the work of *September and October*.

These flowers make a very agreeable appearance, when they are planted in small patches in the borders among other flowers. In a small circle of about six inches diameter you may plant four or five roots; that is, one in the middle, and the rest round the extreme parts of the circle. Let the patches be from two or three, to five, ten, twelve, or fifteen feet asunder.

The above practice, however, of planting those roots in sorts, for it is necessary to plant the fine varieties together in narrow beds, as above, in order both to have the opportunity of protecting them occasionally in severe weather, if thought expedient, and that, when in flower, they may display a spacious show together in their various colours, stripes, and tints, in the different varieties; and also in the spring, when plants are in bloom, they can be more readily sheltered from great rains, or too much sun, both of which would hasten the decay of the flowers; and as the pleasure of admiring the bloom is the only intention of cultivating these flowers, no pains should be spared to protect the more beautiful sorts.

#### *Planting Tulips.*

Tulips, if you have any out of the ground, should now be planted the first settled open weather, to blow late, and to succeed those planted in the last autumn.

Let this work be done as soon as the weather will permit; for if these roots are kept much longer out of the ground, they will blow very poorly. If they are to be planted in beds, let them be three or four feet wide, raised two or three inches, somewhat rounded, that they may throw off the redundant wet of heavy rains, and remain drier at this season more effectually.

In a dry mild day, in open weather, let these bulbs be put into the ground in rows, nine inches

distant, allowing six inches between the plants in each row, and plant them about three inches deep. Or if intended to plant any of the inferior sorts in the borders, in assemblage with other flowers, they may either be planted in a single row towards the front, or some dotted singly, or by three together, to effect a greater variety: but these flowers, when planted in the borders, make the best appearance in little clumps; that is, in a circle of about six or eight inches, plant four or five roots; and about from three or four to five or ten feet further, plant another such clump, and so proceed, in a varied order, towards the front and middle.

#### *Planting Crocuses and Snow-drops.*

Any sort of crocuses may still be planted for an early spring bloom, if dry mild weather; generally planting them along the edges of the flower-borders, next the walks, and in flower-beds, &c. commonly within five or six inches of the edge, either in a continued row, or dotted in little patches, planted about two inches deep; though those designed for the borders appear to greater advantage when disposed in small patches, than in a continued row. Draw a small circle with your finger, about four or five inches diameter; in the middle plant one root, and plant three or four round the edge of the circle; about eighteen inches, or two or three feet further, make another circle, and plant the roots as

above; and so proceed to the end of the border; or may vary the patches, in having some near the edge, and others more towards the middle: observing, if you have different kinds, to plant each sort separate; and if you plant the first patch with yellow crocuses, plant the next with blue, and so proceed with others of different sorts.

Snow-drops may also be planted now in the same manner as the crocuses.

#### *Planting various sorts of Bulbs.*

Jonquils, narcissuses, hyacinths, bulbous iris, Persian iris, gladioluses, pancratiums, fritillaries, crown imperials, or any other kind of bulbous flower-roots, that yet remain above ground, should now be planted, as soon as the weather will permit. Mild dry weather must be chosen to plant these and all other kinds of bulbous roots; and see that the ground is not too wet.

When it is intended to plant any of the common sorts of the above, or other kinds of bulbous roots, in the borders, they may be planted in the manner mentioned above for the common tulips, &c.

#### *Flowers to blow in a House.*

Several sorts of bulbous roots may be placed upon bulbglasses of water for blowing in the apartments of a house, such as hyacinths, narcis-

suses, jonquils, early dwarf tulips, bulbous iris, &c.; the glasses for this purpose are to be had at the seed and glass-shops, being made concave at the mouth, to contain each one root, and are to be filled with soft water, and one root placed in each glass with its bottom touching the water: placing the bottles upon a shelf or chimney-piece of some light warm room, or in the inside of a warm window, and if where the sun comes will be an additional advantage; but in severe frost, removed to the interior part of a room where a fire is kept: they will soon shoot their roots down into the water, which, when become very foul and fetid, should be renewed with fresh occasionally: and they will thus blow very agreeably, early in the spring; or may be greatly forwarded if placed in a hot-house.

Likewise may plant various sorts of bulbous and tuberous-rooted flower-roots, in pots for blowing in a house, such as hyacinths, narcissuses of all kinds, early tulips, crocuses, anemones, ranunculuses, or any other spring flowering kind; having small pots or boxes filled with light sandy earth, plant the roots therein just over their crowns, and place the pots near a window; and when the roots begin to shoot, give occasional light waterings, and they will flower in good perfection at an early season.

*Blowing Flowers early in a Hot-house.*

Many sorts of bulbous, tuberous, and fibrous-rooted perennial flowers, if planted in pots, and



now placed in a hot-house, or any forcing department at work, will shoot and flower very early, without trouble; only to give occasional waterings.—And pots of roses, hypericums, syringas, cytisus, dwarf almond, double-blossom cherry, &c. may also be placed therein, to flower early.

*Care of Perennial fibrous-rooted Plants in Pots.*

Double wall-flowers in pots, double stocks, and double sweet-williams, also cuttings of double chrisanthemums, and any other of the choicest kinds of perennial plants, in pots, should be well secured from severe frosts. If these plants in pots are placed in frames, let the glasses or other covering be kept over them at all times when the frost is keen, or occasionally in very wet weather; but in mild dry weather the plants must not be covered.

Take care now also of all other choicer kinds of fibrous-rooted perennial plants in general, which are in pots, to secure them from frost; such as the double rose champion, double scarlet lychnis, and all other such like kinds.

Those plants which are in pots should, where there is not the convenience of frames, be plunged to their rims in a dry and warm border, and in severe weather covered with long litter; but if you do not plunge the pots they should be well defended, or moved into some sheltered place at the approach of severe frost.

### *Seedling Flowers.*

Boxes or pots of any tender or choice kinds of seedling flowers should be covered in frosty weather, either with mats, long litter, or fern, or the like, which should be laid a good thickness over them, and close round the sides; or remove them under a garden-frame and glasses.

Likewise beds of the more tender and curious sorts of seedling flowers, in common ground, should also be covered, in hard frosts, with mats or long litter; but remove the covering when the weather is mild.

### *Protecting Flowering-Shrubs.*

If you have hardy flowering-shrubs or evergreens in pots, you should, to protect their roots from the frost, plunge the pots to their rims in the ground, if omitted doing in November or December: allotting them, for this purpose, a dry warm situation, where water is not apt to stand.

Or, if not plunged as above, place them close together in a warm situation, and in very rigorous frosts, apply some straw litter, &c., between and over the pots, to protect the roots.

But any tender or more curious young evergreens, &c., in pots, should have the protection of frames or occasional covering of mats, &c., in severe weather.

Protect also the roots of the choicer kinds of newly planted trees, flowering shrubs, and evergreens, from frost, if it should set in hard. This

is done by laying dry mulchy litter on the surface of the ground, close round the bottom of the stem of each tree and shrub, as far as their roots extend, or rather farther

Likewise support all such newly planted shrubs or trees as require it, with stakes, that they may not be displaced by the wind.

*Pruning Flowering-Shrubs, and digging between them.*

Prune flowering-shrubs in the clumps or quarters of the shrubbery, or where they require it. This should generally be done with a knife, and not commonly with garden shears, as often practised; all dead wood should be cut away; also where the branches of different shrubs crowd considerably upon one another, let some be pruned out, and shorten long rambling shoots, and rude luxuriant growths; for, where not intended to form a close thicket, the shrubs in general should be kept clear of each other, so that each kind may be seen distinctly.

After pruning as above, the ground between the shrubs, if they are not in a thickety growth to overspread the surface, should be dug; observing, as you go on, to clear away straggling or very rambling suckers, rising from the roots; digging the ground regularly, turning in all weeds clean to the bottom; and the whole will thereby remain agreeably neat all winter and spring.

*Planting Flowering Shrubs.*

In settled open weather, you may now plant, where wanted, most sorts of hardy flowering shrubs, such as roses, honey-suckles, lilacs, and syringas, althæa and spiræa frutex, guelder rose, Persian lilacs, laburnums, privets, and jasmynes, the cinquefoil shrub, and bladder-senna, the double hawthorn, double-blossom cherry, and dwarf almond, with double and single flowers, the mezereon and double-flowering peach, hypericum, St. John's wort, and scorpion senna, double and single sweet-briar, flowering raspberry, and double bramble; and many other such like hardy kinds of shrubs may at this time be transplanted, if tolerably mild open weather. Likewise, may plant some sorts of hardy ever-greens, towards the latter end of this month, if mild, open weather, such as pines, firs, &c. though it is not advisable to make any general planting of ever-greens at this season.

Respecting the rules and order of planting the various kinds of flowering shrubs, particular regard should be had to the distances, and also to the arrangement or order in placing them, so that the different plants may be readily distinguished; for this is of particular importance in ornamental planting.

Therefore, in the disposition of the shrubs, let the different heights and modes of growth of the various kinds be considered, and placed so that one plant may not overbear another.

The rule is, the taller the plant, the more backward in the border or clump it must be placed, and the shortest should be placed nearest the front, so that the whole may stand in a kind of theatrical order.

The distance which should be allowed between plant and plant, is at least three to four or five feet: this is to be understood, when they are to be planted in the clumps or quarters of the shrubbery; but those that are intended to be planted in the common narrow borders, must be allowed double that distance at least.

#### *Propagating by Layers.*

In open weather may continue to lay the young branches and shoots of hardy shrubs, to raise a supply of new plants; laying them into the earth three or four inches deep, with the tops out, most of them will be rooted by next autumn, fit for transplanting.

#### *Transplant Suckers for Propagation.*

Transplant suckers from the roots of roses, lilacs, spiræas, syringas, and various other shrubs, to raise a supply of new plants: for by suckers many sorts of shrubs may be propagated; let these suckers be taken off carefully, with roots to each, and plant some of the strongest into the shrubberies, &c. where they are to remain, and the smaller plants in nursery-rows, eighteen inches asunder; they will make good plants in two years' time,

*Propagating by Cuttings.*

Cuttings of the young shoots of many sorts of hardy deciduous shrubs may also now be planted in open weather, especially towards the latter end of the month, and they will succeed, take root in spring and summer, shoot at top, and form good-rooted young plants by next autumn.

*Preparations for Planting, &c.*

Trench or dig and prepare such shrubbery compartments and other parts of the pleasure-ground where you intend to plant flowering shrubs, this or the next month. Also dig those clumps, or quarters, where you intend to plant ever-greens, in February or March, that they may be in readiness against planting time.

Dig flower-borders and beds, especially those which are the most vacant, that they may be ready to receive the plants, or seeds of flowers, the two following months.

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**FEBRUARY.***Tender Annual Flowers.*

About the middle, or towards the latter end of this month, it will be time to begin to prepare for sowing some of the more curious sorts of tender annuals.

The choicest kinds are the double balsams, cocksooms, and tricolours, the globe amaranthus,

marvel of Peru, diamond ficoides or ice-plant, egg-plant, stramonium, browallia, &c. All these require the assistance of a hot-bed to bring them forward, in order that they may blow early, and in some tolerable perfection.

Therefore, about the middle or latter end of this month, provide some new horse-dung, and let it be thrown up in a heap, and in eight or ten days it will be in good condition to make the bed. Let the bed be made about two feet and a half thick of dung, making the top level, and then set on the frame and glass. When the burning heat of the bed is over, lay on the earth, observing, that, for this use, it must be rich, light, and perfectly dry, and must be broken pretty small, by rubbing it between the hands: the depth of earth on the bed must be about five or six inches, making the surface level and smooth.

The seed may either be sown on the surface, observing to sow each sort separate, and cover them about a quarter of an inch, or a little more or less, with light earth; or you may draw some shallow drills with your finger, from the back to the front of the bed, and sow the seeds therein, and cover them as above, or may sow them in pots, and plunge them into the earth of the hot-bed.

When the plants appear, admit fresh air to them every day, when the weather is any thing mild; and let them have, now and then, little sprinklings of water. Mind to cover the glasses every night with mats.

But in raising the above annuals, if it is required to be saving of hot dung and trouble, and that if there are cucumber or melon hot-beds at work, you may sow them in pots, and place them in those beds to raise the plants, which may be afterwards transplanted or pricked in pots in the same, or into a nursery hot-bed to forward them to a proper size.

*Sow Ten-week Stocks and Mignonette.*

The ten-week stock is a pretty annual; none make a more agreeable appearance in the borders and in pots, &c. and it continues a long time in bloom; and the mignonette imparts a sweet odour. It is now time about the beginning, and towards the middle and latter end of this month, to sow a little of the seed of each, to raise a few plants to blow early in the summer.

The seed may either be sown in a slight hot-bed, or in a warm border, or in a bed or pots of natural earth, for the plants are tolerably hardy; but by sowing the seed at this time in a moderate hot-bed, it will bring the plants on much forwarder, and the blow will be stronger, and earlier by three weeks or a month, than those sown at the same time in the natural ground.

But where a hot-bed cannot readily be procured, some seed may either be sown in one or more middling-sized pots, placed under shelter of a frame and glasses, or hand-glasses, &c.; or toward the middle or latter end of this month let a small



spot of a warm border be neatly dugged, and there mark out a bed about three feet broad; sow the seed tolerably thick on the surface, and rake it neatly, or may be sown in drills: then arch the bed over low with hoops, and cover them with mats every night, and in bad weather. But if the above bed of natural earth could be covered with a frame and glass, or with hand glasses, it would be a greater advantage to the plants.

When the plants have been up about a month or six weeks, they should be transplanted where they are to remain.

But if your plants stand thick in the seed-bed, some of them, when they have been up about three or four weeks, or when about an inch high, may be pricked out, either in a slight hot-bed, which will forward them considerably, and some in small pots placed therein, three plants in each, or others upon a warm border, three inches asunder; and when they have stood a month, all those not potted should be planted where they are to remain.

### *Hardy Annual Flower-Seeds.*

About the latter end of this month, if the weather is mild and dry, you may sow many sorts of hardy annual flower-seeds in borders, and other parts of the pleasure garden.

The sorts proper to sow at this time are larkspur and flos Adonis, convolvulus, lupines, scarlet pea, sweet-scented and Tangier peas, candy-

tuft, dwarf lychnis. Venus' looking-glass, Lobel's catch-fly, Venus' naval wort, dwarf poppy, nigella, queen's balm, annual sun-flower, oriental mallow, lavatera, and hawk-weed, with many other sorts.

All the above seeds must be sown in the places where you intend the plants shall flower, in beds, borders, pots, &c. They must not be transplanted, for these sorts will not succeed so well by that practice. The following is the method—

• Dig with a trowel small patches in the flower-borders, about six inches in the width, at small or moderate distances, breaking the earth well, and making the surface even; draw a little earth off the top to one side, then sow the seed therein, each sort in separate patches, and cover it with the earth that was drawn off, observing to cover the small seed about a quarter or near half an inch deep, according to their size; but the larger seed must be covered an inch deep at least.

When the plants have been come up some time, the larger growing kinds should, where they stand too thick, be regularly thinned; observing to allow every kind, according to its growth, proper room to grow.

For instance, the sun-flower to be left one in a place; the oriental mallow, and lavatera, not more than three; the lupines four or five in a patch, the convolvulus, the same number; the rest may be left thicker.

*Blowing Annuals early in a Hot-house.*

Any sorts of desirable annuals of moderate growth may be flowered early in a hot-house with little trouble, sowing the seeds in pots, and placing them in any part of the house, or towards the front or end glasses; or, to have them as forward as possible, some may be plunged into the bark-bed, &c.

*Plant hardy Herbaceous fibrous-rooted Flowering Perennials.*

Now you may plant, where wanted, most sorts of hardy fibrous-rooted flowering plants, both of perennials and biennials, if mild open weather; such as polyanthuses, primroses, London-pride, violets, double daisies, double chamomile, thrift, gentianelli, hepaticas, and saxifrage.

Plant also rose-campion, rockets, campanula, catch fly, scarlet lychnis, double feverfew, bachelor's-button, carnations, pinks, sweet-williams, columbines, Canterbury-bells, monkshood, Greek valerian, tree primrose, foxglove, golden rods, perennial asters, perennial sun-flowers, holy-hocks, French honeysuckles, and many others.

In planting the above, or any other sorts, observe to dispose them regularly, and intermix the different kinds in such order as there may be a variety of colours, as well as a regular succession of flowers in every part during the flowering season.

*Dress the Auricula Plants.*

Now, in settled mild weather, prepare to dress the auricula plants in pots, and add some fresh earth to them, provided it was not done the latter end of January. But this is now a more proper season for performing this necessary work; observing the same method as directed last month; and the sooner it is now done the better.

The choice kinds of auriculas in pots must now be treated with more than ordinary care, for their flower-buds will soon begin to appear; therefore the plants should be defended from frost and cold heavy rains.

This must be done by a covering of mats, canvass, or glass; but every mild and dry day the plants must be entirely uncovered.

*Sow Auricula and Polyanthus Seeds.*

Auricula and polyanthus seed may be sown any time in this month; they will grow freely, and the plants from this sowing will rise well. The seeds may be sown in a warm spot in the common ground, or in boxes, or large pots filled with light rich earth; but the pots or boxes are often preferred, because they can readily be removed to different situations, as the season may require.

The seeds must be sown tolerably thick, and covered with light earth about a quarter of an inch deep.

Place the boxes in a situation well defended

from northerly winds, and open to the morning and mid-day sun; in two months' or ten weeks' time they must be removed to a more shady place.

In June or July they will be fit to transplant.

### *Transplant Carnation Plants.*

Transplant the carnation plants in mild weather, which were raised last year from layers, into the large pots and borders, &c. where you intended them to remain to blow, if not done in autumn; let this be done about the latter end of the month if the plants are in tolerable strength.

Those intended for pots should generally be some of the choicest fine varieties; and if the plants have been wintered in small pots, or in beds, &c. you may now, if settled mild weather, transplant them finally into the proper-sized pots (twenty-fours, or sixteens) to remain for flowering.

Fill, for that purpose, some pots with light rich earth; then having any plants in small pots, turn them out with the ball of earth about their roots, entire; or, if growing in beds, take them up also with balls, or as much earth as will readily hang about their roots; set one plant in the middle of each large pot, and close the earth well about the roots and stem of the plants, giving them immediately a moderate watering, which will settle the earth close to the roots, and the plants well in their places

When all is planted, set the plants in a situation well sheltered from cold winds.

Likewise plant carnations in the flower borders, in open weather, the middle or latter end of the month.

*Tulips, Hyacinths, &c.*

Defend the beds of the more curious or valuable tulips, hyacinths, anemones, and ranunculuses, from frost, snow, and excessive rains; the plants will now begin to appear above ground; and the beds wherein the finest of these flower-roots are planted should now, where intended, and if not done before, be arched over with hoops; and in frosty, or extremely bad weather, let mats or canvass be drawn over to defend the advancing flower-buds.

This, where it can be conveniently done, should not now be omitted to the choicest kinds, when required to have them blow in their ultimate perfection; for although they are hardy enough, yet being protected in their early flower-buds this and next month from inclement weather, the blow will be much finer than if fully exposed; however this care is not necessary for the common kinds, either in beds or borders.

*Dress and dig the Borders, Beds, &c.*

Now let the flower beds and borders in general be thoroughly cleared from weeds, and from every kind of litter; for neatness in those parts

of the garden is agreeable at all times, but more particularly at this season, when the flowers and plants of most kinds are beginning to push.

Therefore, let the surface of the beds and borders be lightly and carefully loosened with a hoe, in a dry day, and let them be neatly raked; which will give an air of liveliness to the surface, and the whole will appear neat and very pleasing to the eye, and well worth the labour.

Likewise if any borders, beds, &c. were not digged last autumn or winter, it should now be done, ready for the reception of flower plants, seeds, &c, and that the whole may appear fresh and lively.

#### *Prune Flowering-Shrubs.*

Finish pruning flowering-shrubs, and evergreens, where they want it.

In doing this work, observe to cut out all dead wood; and where any of the branches are too long, or grow straggling, let them be shortened, or cut off close, as you shall see it necessary; and likewise, where the branches of different shrubs interfere, or run into each other, let them be cut shorter, so that every shrub may stand singly, and clear one of another; then all the different shrubs will show themselves distinctly and to the best advantage.

When the shrubs are pruned, let the cuttings be cleared away, and then let the ground be neatly dug between and about all the plants, observing to take off all suckers arising from the roots. Nothing looks better in a shrubbery

than to see the ground neat and fresh between the flowering-shrubs and ever-greens, &c. especially in such clumps and other compartments where the shrubs stand distant.

But as sometimes particular parts of a shrubbery are on some occasions required to form a close thicket, in that case very little pruning, or digging, &c. is wanted.

### *Planting Flowering-Shrubs.*

Most sorts of flowering-shrubs may now be safely removed any time this month when it is open weather.

But particularly the Guelder-roses, syringas, laburnum, lilacs, honeysuckles, roses, spiræas, and althæa-frutex, hypericum-frutex, Persian lilac, double-blossomed cherry, double-bramble, cornelian cherry, and double-hawthorn: you may likewise plant bladder-sena, scorpion-sena, privet, Spanish broom, jasmines, sumach, cistuses, and acacias, with many other sorts of hardy deciduous shrubs, which may now be safely transplanted; for most sorts will take root very freely and soon at this season.

### *Forcing Early Flowers, &c.*

Where early flowers are required, you may in the beginning of this month, place various sorts in pots, in hot-houses, forcing-houses, &c. now at



work, and in hot-beds; such as pots of pinks, carnations, sweet-williams, anemones, ranunculuses, narcissuses, early dwarf tulips, hyacinths, jonquils, and any other ornamental and sweet-smelling flowers, both of the fibrous, bulbous, and tuberous rooted kinds, and they will blow early, and in good perfection.

Likewise may have pots of roses and other desirable flowering plants, placed now in the hot-house, or any forcing department.

About London the gardeners force various flower plants for market, which is sometimes effected in boarded forcing frames, with the assistance of hot dung applied to the back part thereof; these frames being constructed of strong inch and half boards, made five, six, seven feet high behind, the ends in proportion, and fronted with glass sashes sloping to the top of the back; four, five, or six feet wide at bottom, by one foot at top; the length at pleasure; and in which placing pots of plants and shrubs, hot dung is piled against the back and ends half a yard wide at bottom, gradually narrowed to a foot wide at top. The dung throws in a fine heat, and the plants flower agreeably at an early time; keeping up the heat when decreased, by the application of fresh hot dung.

Though, since hot-houses have become so prevailing, these kinds of frames are not generally used.

## MARCH.

*Pricking out Early Annuals.*

If any tender annuals were sown last month, such as cockscomb, tricolours, balsamines, &c. make a new hot-bed towards the middle or latter end of this, in which to prick them to forward their growth. Let the hot-bed be about two feet or thirty inches high, and make the top even; then set on the frame; and when the great heat is over, let the earth be put in; let the earth be light and rich, and perfectly dry, and lay it equally over the bed six inches thick; and, when warm, prick the plants therein at three or four inches distance, each way, or some may also be pricked in small pots, one good plant in each, and plunged in the earth of the bed; giving the whole a little sprinkling of water; then let the glasses be put on, observing to raise them behind a little every day, to admit air and let out the steam; shade the plants from the sun till they have taken fresh root.

When the plants are rooted, and begin to push, they should have fresh air every day; therefore let the upper ends of the glasses be raised an inch, or two, or three in height, to admit it to them; but shut them down towards the evening, and cover them on cold nights with mats; remember to sprinkle them with water occasionally, giving but a little at each time.

Keep up the heat of the bed by occasional lining with hot dung.

Thus these tender annuals are to be continued forwarding in growth till May or June; then finally transplanted into large pots, flower borders, &c.

#### *Sowing Tender Annuals.*

A hot-bed may be made the beginning or any time of this month, in which to sow the seeds of tender annual flowers, such as cockscomb, amaranthus, egg-plant, marvel of Peru, double stramonium, tricolour, double balsamine, globe amaranthus, ice, plant, sensitive plant, &c. Make the bed, and sow the seed, as directed in last month. Or a few plants may be raised in pots in any cucumber or melon hot-bed now in cultivation, to a proper size for transplanting.

The plants raised from the above sowings will blow strong and beautiful in June or July, &c. till October.

Remember they are not to remain in the hot-bed where raised, but are to be transplanted, some into pots, and some into the borders

#### *Sowing less Tender Annuals.*

A slight hot-bed should be made in the second or third week of this month, wherein to sow the seeds of the less tender kinds of annual flowers: such as the China aster, India pink, palma Christi, capsicum, French and African marigolds, chrysanthemum, broad-leaved tobacco, basil,

mignonette, and ten-weeks stocks, tree and purple amaranthus, persicarias, love-apple, scabiouses, convolvulus major, and Chinese hollyhocks, &c. Or also among these may sow some balsams, marvel of Peru, globe amaranthus, stramoniums, &c.

Observe, they are all only to be raised in the hot-bed, and afterwards transplanted into the borders, pots, &c.

Make the hot-bed about two feet high; put on the frame, and then earth the bed, five or six inches thick for the reception of the seed.

The method of sowing these seeds is this: draw small shallow drills from the back to the front of the frame, two or three inches asunder; sow the seeds therein, each sort separate, and not too thick; cover the smallest seed about a quarter of an inch, and the largest near half an inch; or some may be sown in pots placed in the same bed. When the plants are come up, let them have air by raising the upper end of the glasses, or sometimes the front, in mild weather, one, two, or three inches every day: and when they are advanced two, three, or four inches in growth, next month they must be gradually hardened, to bear the open air by taking the lights entirely off in mild warm days. Refresh them occasionally with moderate sprinklings of water; some of them will be fit to prick out next month, and all of them in May.

*Note.* In default of frames and lights for the hot-bed, may use hand glasses, or oiled paper

frames; or may arch the bed over, and cover with garden mats, &c. only in nights and bad weather.

Where a hot-bed cannot be conveniently obtained, you may, towards the latter end of the month, if fine mild weather, sow some of the above-mentioned annual flower seeds on a warm border, and cover occasionally in cold nights and bad weather with glasses or mats, &c. as above.

The sorts that will succeed by that method are China asters, ten-weeks stocks, India pink, African and French marigold, chrysanthemum, purple and tree amaranthus, persicarias, tobacco, scabiouses, and convolvulus major, mignonette, &c.: sow the seeds thin, each sort separate, and either place hand glasses, or arch the bed over, and cover every night, and in bad weather, with mats across the hoops. With this management the plants will come up, and grow freely. Refresh them with water in dry weather; and they will be fit to plant out about the middle or end of May, or beginning of June, and will flower the latter end of June, and in July, &c. to the end of autumn.

May sow ten-weeks stocks, and mignonette in borders, beds, or pots, &c. both for transplanting, or some to remain, three or four together, for flowering where sown.

Or, for want either of a hot-bed, or any of the other above-mentioned conveniences, most of the above seeds will succeed in a warm border next month, without any protection.

*Sowing hardy Annual Flowers.*

Sow in the borders, and other flower compartments, pots, &c. the seeds of the various sorts of hardy annual flowers, such as large and dwarf annual sun-flower, oriental mallow, lavatera, persicaria, Venice mallow, larkspur, flos Adonis, sweet sultan, large rose, and blue and yellow lupines, convolvulus major, sweet-scented peas, Tangier peas, and nasturtiums, the Spanish nigella, purple and white candy-tuft, virgin stock, Venus' looking-glass, Venus' navel-wort, double poppy, Lobel's catchfly, dwarf lychnia, snails, caterpillars, and convolvulus minor, ten-weeks stocks, and mignonette, and various others.

All the above and other hardy annual flower-seeds should be sown, each kind separate, in patches, in the different borders, and flower beds, &c. finally to remain where sown; as also some in pots, of any desirable species or varieties, such as larkspurs, lupines, scarlet, and sweet peas, ten-weeks stocks, mignonette, &c. sowing the whole as directed last month: water the patches both before and after the plants are come up; and observing the plants of this tribe sown as above, are principally to remain where sown to flower; but, when a little advanced, let the larger-growing kind be thinned where too thick in growth.

*Giving fresh Earth to Plants in pots.*

Give some fresh earth to the pots of carnations, auriculas, double wall flowers, double stock July

flowers, double sweet-williams, rockets, rose cam-pions, catchfly, campanulas, and scarlet lychnis, and such like plants, which were potted last autumn, or before, and were not dressed last month.

In doing this, clear the plants first from decayed leaves, then take some of the earth out of the top of the pots, but not too deep to disturb the roots of the plants; then fill up the pots again with fresh earth, and give some water; this will strengthen their roots, and the plants will shoot freely, and produce large flowers.

#### *Chrysanthemums.*

The cuttings of double chrysanthemums, which were planted in boxes or pots last autumn, and preserved all the winter in frames, &c. should now be planted out singly in the pots where they are to flower; some of them may be planted out next month in the borders among other flowers, where they will flower early and strong, and make a handsome appearance.

#### *Auricula Plants.*

If the auriculas in pots were not dressed last month, let it now be done early in this, as formerly directed.

The fine auricula plants in pots should now be guarded from excessive wet, cold winds, and frost, such weather being hurtful to their flower-buds, which are now in forwardness. Therefore

continue the pots under frames or hoop-arches, where the plants can enjoy the open air, and be defended, when there is occasion, by glasses, or drawing mats over the hoops.

But let the plants enjoy the full air in mild weather, and not be debarred from a warm moderate shower of rain, which will now prove beneficial to their advancing flower-buds. When the weather is dry, let them be refreshed moderately with water, just to keep the earth a little moist about their roots, and keep the pots clear of weeds, and the plants from decayed leaves

#### *Carnations.*

The carnations which were raised from layers last year, and which are not yet planted into the large pots, borders, &c. where you intend them to flower, should be planted therein the beginning of this month.

Take up the plants with some of their own earth about their roots, and place one plant in the middle of each pot; but if the pots be large, you may put two plants in each; close the earth well about them, and give a moderate watering to settle the earth about their roots. Place the pots where the plants may be defended from cold winds, and water them moderately in dry weather; the others plant singly in borders, &c.

Where any best carnations were planted singly in small pots last autumn, to place under shelter in winter, should now, if not done last month, be transplanted, with the ball of earth about the



roots, into large pots, or borders, &c. to remain for flowering.

The carnation plants which were planted last autumn into the large pots where they are to remain, should now be fresh earthed, if not done in February.

Let the plants first be cleared from dead leaves, then take some of the earth out of the pots, as near to their roots as possible, without disturbing them; then let the pots be filled up with the fresh mould, laying it close round the plants; after which, water the pots to settle the earth.

The fresh earth will be of great service to the plants; it will strengthen them, and cause them to shoot strong, and produce large and handsome flowers.

This is now a proper time to sow carnation seed.

#### *Protecting Curious Flowers.*

Now protect the flower-buds of the more curious kinds of tulips, hyacinths, ranunculuses, and anemones, in beds, from cold driving rains, snow and frost, which frequently happen in this month. Their flower beds are now advancing apace; therefore, it will be of much advantage to bestow the care of covering them in bad weather, and they will blow large and beautiful in great perfection. Let the hoop-arches be continued over the beds, ready for the support of occasional covering, when the weather is frosty, and in ex-

cessive cold rains, &c. sharp cutting winds, and very cold nights, with large mats drawn over the hoops.

In mild days let them be constantly uncovered, that they may enjoy the free air; and moderate warm showers of rain will enliven their growth, and be very serviceable.

If the hoops which are fixed across the beds are low, and too near the flowers when advanced in growth, they should be removed, and others fixed higher in their places.

### *Hyacinths.*

Hyacinths will now begin to advance apace; if the flower-stems are tall, and the spikes of the flowers large and the petals double, you should prepare some sticks to support them; for the large double flowers being heavy, the stalk alone is not able to bear them up. Let a small neat stick be fixed in the ground near every plant, and let their flower-stalks be brought close and fastened thereto neatly with some small soft tying.

### *Planting Ranunculuses and Anemones.*

Finish planting all ranunculuses and anemones; they will blow and make a fine appearance in May and June, after the early planted ones are out of bloom. In dry weather, let the beds be frequently watered after the plants are up, and they will flower tolerably strong.

*Sowing various kinds of Fibrous-rooted Perennial  
and Biennial Plants.*

Perennial and biennial flower-seeds, of most kinds, may be sown towards the middle and latter end of the month.

It is to be observed, that these kinds do not flower the same year they are sown: but all the sorts of them will flower strong, and in good perfection, the year after.

As every one may not know the meaning of perennial and biennial plants, the perennial plants are those which continue in the same roots many years, producing new flower stems annually, such as everlasting sunflower, golden-rod, perennial asters, &c. The biennials are only of two years' duration, being sown one year, and flower and perfect their seeds the next, and soon after die, or become of a dwindling growth, such as scabious, Canterbury bell-flower, single sweet-williams, &c.

Many kinds are proper to be sown now, such as carnations, pinks, sweet-williams, wall-flowers, and stock July-flowers of all sorts; also rose campion, catchfly, scarlet lychnis, columbines, Greek valerian, polyanthus, auriculas, scabiouses, and Canterbury bells.

The seeds of hollyhocks, French honey-suckles, rockets, honesty, or satin flower, tree-pimrose, shrubby mallow, broad-leaved campanula, and fox-gloves, snap-dragon, bee-larkspur, with seeds of most other sorts of perennial and biennial plants, may now be sown.

All the above, and other hardy perennial and biennial flower-seeds, are to be sown in beds of light earth in the open ground.

Dig a compartment for them in a warm situation, but not in any shady place: divide the ground into beds three or four feet wide, and the beds into as many parts as you have kinds of seeds: sow each kind separate, and let them either be raked in regular, or covered with earth spread over evenly, the larger seeds half-an inch, and the smaller seeds about a quarter of an inch deep.

But in sowing these kinds, or any other sorts of perennial and biennial flower seeds, you may draw shallow drills to sow them in, proportioning the depth of the drill to the size of the particular seeds, so that each kind can be more regularly covered with the proper depth of earth it requires: which method is more particularly eligible for the larger seeds, such as hollyhocks, &c. but is also very proper, occasionally or generally, for the smaller kinds; or the whole may be sown broadcast on the rough surface, and raked in evenly. Or you may practise the following method: first rake the surface of the bed smooth; then, with the back of the rake, turn the depth of about half an inch to near an inch of earth equally off the surface of the beds into the alley, then sow the seed, and with the teeth of the rake, draw the earth back again evenly over the seed.

When the weather is dry, sprinkle the beds frequently with water, continuing also the same

care when the plants begin to appear; and they will be fit for pricking out in May and June.

For it must be observed, that all the above, and other perennial and biennial plants raised from seed, are to be transplanted; first pricking them out from the seed-bed about the end of May, and in June, and then about Michaelmas, October, or November, to be transplanted to where they are to remain to flower; or some may remain for final transplanting in the spring.

#### *Transplanting Perennial Plants.*

Where there are vacancies in any of the beds, borders, or other parts of the garden, they may now be filled up with many different kinds of perennial and biennial flower-plants, any time in the month, and will all blow the same year.

Many principal sorts may now be planted, such as lychnises, rose champions, rockets, catch-fly, campanulas, carnations, pinks, and sweet-williams, wall-flowers, stock-gillyflowers, bachelor's-buttons, and double feverfew; golden-rod, perennial sunflowers, perennial asters, and French honey-suckles; also columbines, Canterbury bells, monks-hood, fox-gloves, tree-primroses, scabious, snap-dragon, irises, bee-larkspur, double ragged robin, valerian, and most others of the like sort.

Plant also dwarf fibrous-rooted flowers in the borders, they will take root freely in a short time: such as polyanthuses, auriculas, double daisies, double chamomile, London pride, violets,

hepaticas, thrift, primroses, saxifrage, and gentianella, lily of the valley, and cyclamen.

In planting the intended different kinds, dispose them variedly; and the larger growing sorts more or less back, the smaller growths forward towards the front and middle.

Give water at first planting, and afterwards occasionally in dry weather, till the plants are fresh rooted; by which they will grow freely, and all flower the same year in their proper season.

#### *Planting Roses.*

Rose-trees of most sorts may still be removed.

Those that are planted any time this month will produce flowers the same year; but the sooner they are planted the better they will take root, and the stronger they will flower.

But by transplanting these shrubs late in the season, in April and beginning of May, giving plenty of water till fresh rooted, you obtain a late bloom in July, August, and September.

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## APRIL.

#### *Sowing Carnations.*

Now is still a proper time to sow the seeds of carnations and pinks.

But these seeds must be sown in the first or second week of the month; either in an east border, or let some small spot of rich light ground be neatly dug, and divided into beds about three

feet broad, making the surface even. Sow the seed on the surface tolerably thick, each sort separate; and either rake them in lightly, or if the surface is first raked, and the seeds then sown, cover them a quarter of an inch deep, or thereabouts, with fine light earth.

#### *Planting Carnations.*

Carnations, not yet finally planted into the borders, beds, or pots where intended they should remain to flower, may still be done, but should be performed in the beginning or middle of this month at latest; removing them with balls, and watered as soon as possible.

#### *Planting and Sowing Polyanthuses.*

Polyanthuses may still be planted, and also propagated by rooted slips: and the seed may be sowed. But these works should be done in the first or second week in the month, otherwise the seedling plants particularly will not get strength enough to flower strong next year.

Let this seed be sown on a border of light earth, not much exposed to the sun; sow it pretty thick, and rake it in lightly with an even hand.

When the plants come up, keep them clean from weeds, and give occasional light waterings in dry weather; in July or August prick them out on a shady border, three inches asunder, giving them some water.

*Management of Pots of Perennial Plants in general.*

Give fresh earth to such pots of perennial plants as were not dressed and new earthed in March. The method is this; first loosen the earth on the top, and down round the sides of the pots a little way; then take out the loose earth, and clear away all decayed leaves from the plants; this done, fill up the pots again with some rich new compost, and then give the whole a gentle watering.

*Sowing Perennials and Biennials.*

Now sow such perennial and biennial flower-seeds as are intended to be sown this season.

The sorts proper to sow now are wall-flowers, stock July-flowers, sweet-williams, columbines, campanula, tree-primrose, and Greek-valerian; likewise hollyhocks and French honeysuckles, with the single catch-fly, rose campion, scarlet-lychnis, and the seeds of most other sorts of hardy fibrous-rooted perennials and biennials.

These seeds may either be sown on borders, or in three or four feet wide beds of rich earth, and raked in, or covered evenly with earth; the largest seed not more than half an inch to an inch deep; nor the smaller less than a quarter of an inch; or the larger seeds may be sown in drills.

*Planting Evergreens.*

Evergreens shrubs and trees, of many sorts, may yet be planted. But this should be comple-



ted by the middle of the month, or as soon after as possible.

Open for each shrub, &c. a circular hole of proper width and moderate depth, and let the bottom be loosened; then bring in the plants, set them upright in the holes, and let the earth be very well broken and filled in about the roots in a regular manner; and when all is in, tread it down gently round the extreme parts and stem of the plant; then make the earth at top somewhat hollow, in order to contain water.

When all is planted, give a good watering to settle the earth about their roots; then lay some mulch on the surface round each plant; this will prevent the sun and wind from drying the earth too fast about their roots.

Stakes should be placed to such tall shrubs and trees of the above as require support; and this should be done as soon as they are planted.

#### *Planting Flowering-Shrubs.*

Where flowering shrubs are much wasted, they may yet be removed; but this should be done in the first or second week of the month, or as soon as possible.

The althea-frutex, lilac, Persian lilac, hypericum, and privet, will yet bear transplanting; also the bladder and scorpion senas, honeysuckles and jasminea, syringas and laburnums, and most other hardy deciduous shrubs and trees.

When they are planted, water them well; and

repeat it once or twice, if the season should be very dry.

### *Sticking and Trimming Flowering-Plants.*

Go round and place sticks to all such plants as require support, and let them be well secured before they take an awkward growth; which work should be continued occasionally according as the plants advance in height. The sticks should be well proportioned to the natural height of each plant: for it looks ill to see a tall stick set for the support of a plant of low growth.

Take off all straggling, broken, and decayed shoots from the plants of every kind, and let decayed leaves be cleared away whenever they appear.

### *Clean and Dress the Borders, &c.*

First destroy weeds in every part before they grow large: they will now rise numerously in the borders. Let these be destroyed by the hoe or hand, as it is most convenient; but where the plants stand wide, let the hoe be used, it being the most expeditious method. Let your hoe be sharp: take the advantage of a dry day to use it, cutting the weeds up clean within the surface; and let every part between the plants be stirred; and, as you go on, let all dead leaves and straggling shoots be taken off. Then rake the borders, &c. over neatly with a small rake; clearing away, at the same time, all the weeds and litter,

and let the surface be made perfectly clean and smooth; and they will thus have a requisite, fresh, orderly appearance, agreeably for the spring season.

## MAY.

*Hyacinths, Tulips, &c.*

Continue to defend the beds of the more curious and capital kinds of hyacinths and tulips, now in flower, from the full sun, heavy rains, cold nights, and all inclement weather; and also the choice kinds of ranunculuses and anemones, which are now in bloom.

If, for the defence of the choicest kinds of these flowers, hoop arches, &c. were placed across the beds the former months, let the mats or canvass be always ready for drawing over the said arches, when there is occasion to shelter the plants.

The mats, &c. should be drawn over every day, when the sun shines, about nine or ten in the morning, and be taken off about four or five in the afternoon. The mats must also be drawn over the hoops to defend the flowers from heavy showers of rain, when such at any time happen.

Where this shading and sheltering these kinds of flowers is regularly practised, it will preserve them a long time in their fullest beauty, at least a fortnight or three weeks longer than if they

were to be fully exposed; and they will also be much finer.

Mind that the hoops which are fixed across the beds for the support of the mats be not too low, for that would hide and darken the flowers too much, and render the bloom less brilliant.

The more preferable method of preserving the bloom of these plants in the best perfection is, by having, in April, arranged on each side of the bed, some stout stakes, fixed upright in the ground two feet distance from one another; and each stake stand three or four feet high; to these let hoop arches be fixed across the bed; the coverings of mats or canvass are to be drawn over them occasionally, and there will be air sufficient to preserve the flowers strong, and their colours lively.

Some persons, who are curious in cultivating the choicest sorts of these kinds of flowers, erect an awning, or shade, of hoops and mats, over the beds, high enough to walk under; taking care that the mats come low enough on the sides, to keep off driving rain, and the mid-day sun from darting upon the bloom.

But this kind of high shady frame is only occasionally erected, principally over the beds of some finest capital tulips and hyacinths: it is soon constructed, and the expense of the materials is but trifling, and a little pains should not be spared to preserve the beauty of the choicest kinds of these desirable flowers.

*Autumn Flowering Bulbs.*

The autumnal bulbs, or such as flower only in autumn, continuing in growth in the root and leaves till this season, when generally about the latter end of this month, or in June, the leaves decay, at which period, the roots having done growing, not drawing any nourishment from the ground, is the most proper time to take up, remove, or transplant them as may be required, and it is generally necessary that these bulbs be taken up every two or three years at most, to separate the increased off-sets from the main bulbs; and by these off-sets you gain an increase of roots, some of which will flower the following autumn, and most of them the next year; and by divesting the main roots of the off-sets, they will constantly flower much stronger.

The colchicums and autumnal crocus will be in condition for the above practice of removing or transplanting by the end of the month or beginning of next; and also the yellow autumnal narcissus, and such other autumnal flowering bulbs, whose leaves now decay.

They must be taken up in dry weather, and the small off-sets carefully separated from the main root; and they may then either be planted again immediately, or may be spread upon a mat, out of the sun, to dry, they may then be put up till the last week in July, or the first week in August, when they are to be planted again, for flowering the same year, in August and September, &c.

*Carnations.*

Carnation plants in pots should at this time, have all the assistance of culture, to encourage them to shoot with vigour.

The stalks now advance apace for flowering;—sticks should be placed for their support, provided it was not done before. Let the sticks be straight, and long enough, and thrust them carefully down close to the plant; then let the flower-stalks, according as they advance in growth, be tied neatly to them in two or three different parts.

Clear the plants also from decayed leaves, if there be any, and stir the surface of the mould a little: this done, add a sprinkling of fine fresh earth over it, bringing it close about the plants, and immediately give the whole a moderate watering.

Observe, that, in order to have large and handsome flowers, all buds which rise from the sides of the stalks below, should now be taken off, leaving none but the top buds: this is the method practised by florists.

The pots should now be placed where the mid-day sun does not come; and in dry weather they must be watered once in two days.

*Auriculas and Polyanthus.*

Take good care of the articula plants in pots, when they are past flowering, especially those which flowered upon a covered stage, &c.

Let the pots according as the flowers fade, be immediately removed off the stand or stage, and place them in the full air upon a clean level spot, where the plants can enjoy the morning sun only, till nine or ten o'clock; and there let them remain till September.

Keep the pots and the ground where they stand perfectly clear from weeds; and where decayed leaves appear on the plants, let them be immediately taken off; and in dry weather refresh the pots often with water.

Off-sets of auriculas may now be detached and planted in shady borders till autumn, then transplanted in pots, &c.

Remove the boxes or tubs of seedling auriculas and polyanthuses to a shady place, provided it was not done before; the place must be open to the morning sun only.

They must be often sprinkled with water in dry weather, and kept very free from weeds.

#### *Care of Seedling Bulbs.*

The seedling tulips and narcissus, and other seedling bulbs, coming up this year, should be screened from the mid-day sun, when scorching hot.

#### *Sowing less Tender, or Hardier Annuals.*

The seed of ten-weeks stocks, mignonette, China-asters, and India-pink, may still be sown. You may also, where omitted in the last two months, still sow the seeds of African and French

marigolds, balsams, chrysanthemums, and any other annuals of this class; but this should be done the first or second week in the month.

These seeds may now be sown in a bed or border of rich light earth into the natural ground; and if often refreshed with water in dry weather, and sheltered with mats in cold nights, the plants will come up soon and will grow freely, though they will now succeed without any shelter. But if sown in a slight hot-bed, it will bring the plants on forwarder for planting out finally, a week or fortnight sooner, and will flower sooner in proportion.

The plants from this sowing will be fit to plant out next month, and will come into flower in July and August, and continue till the cold weather destroys them.

#### *Double Wall-Flowers.*

Propagate double wall-flowers, by slips of the young shoots of the head; the plants raised by this method will retain the double property and colour of the flowers, in all-respects the same as the parent plant from which they were slipped.

Choose for this method of propagation, such slips of the young shoots of the year as are of a somewhat robust growth, from three or four to five or six inches long; and let them be carefully slipped off, or occasionally cut with a knife from the mother plant, in a moist or cloudy day; or otherwise in the evening or morning, especially if hot sunny weather.



Take off the leaves at the bottom of the slips rather more than half way up, so that there may be two, three, or four inches of a clear stalk, according to the length of the slip. Twist the stalks a little at the bottom, and then plant them.

They are to be planted in a shady border, or in pots, three, four, or five inches asunder, and put into the earth up to the leaves, and then give them some water.

Do not forget to refresh them often, in dry weather, with moderate waterings, and they will soon strike root, produce shoots at top during the summer, and form little bushy-headed plants by the end of September, when they may be taken up, with balls of earth about the roots, and planted in pots, in order to be moved into shelter in time of severe frost in winter, and they will all flower next spring.

The wall-flowers which were raised last year from seed will now be in flower, and some of them will probably be double: for it sometimes happens, when the seed has been saved from the finest single flowers, that one plant in ten or perhaps twenty or thirty, &c. will come double; and at other times not one in a hundred, and sometimes in five hundred, will prove multiple.

Therefore where double flowers of a deep blood colour offer among the seedling plants, now is the time to propagate that sort by slips, as above directed.

For the greater chance of having double wall-flowers from seed, the florists are careful to save

the seed, if possible, from such single flowers as are situated near double ones; though we do not pretend to say this has any particular effect; especially, as in the full doubles the multiplicity of petals excludes all the generative parts of influence; however, if any of those single ones happen to have five or six petals or flower-leaves they are more particularly preferred as the best from which to save seed.

The beginning of this month is still a proper time to sow wall-flower seed for flowering next year.

*Transplant Seedling, Perennial and Biennial  
Flower Plants.*

Transplant or pick into nursery-beds some of the seedling perennial and biennial flower-plants which were sown in March; some sorts will be grown to the proper size to remove by the third or fourth week of the month.

Sometimes the wall-flowers, in particular, and stock July-flowers, will be ready to transplant by that time; and also columbines, and sweet-williams, single scarlet lychnis, rose-campion, and catch-fly, and pyramidal-campanulas, or Canterbury-bells, and Greek-valerian, with the tree-primrose, fox-glove, French-honeysuckles, and hollyhocks, and such other sorts as were sown early in the spring, and are advanced two, three, or four inches in growth.

They must all be planted now into nursery-

beds, where they must remain to get strength, before they are planted out for good.

Dig for this purpose a spot of good clean ground, and divide it into beds, three feet and a half broad, and rake the surface even.

Then put in the plants by line, six inches distant each way, and each sort separate. As soon as they are planted, let them be moderately watered to settle the earth well about their roots.

All these are to remain in the nursery-beds till September or October, or some till the spring, then to be planted out for good; they will all flower next year, and make a fine appearance.

#### *Glass Cases for drawing Annuals.*

Where there is the conveniency of a glass case, the plants may still be brought to a greater perfection.

The glass cases for this purpose are generally made about six, seven, or eight feet wide, and as long as may be convenient; the height must be five or six feet in front, and seven or eight in the back.

The front must be of glass sashes, perfectly upright, and face the south; the back may be either of wood, or brick, and both ends may be of the same materials; but would be better if the ends are the same as the front, in upright glass-work; and the top must also be of glass sashes, sloping from the back to the front.

Within this the hot-bed is to be made, but for which a pit must be formed almost the whole

length, raised full half or more, by brick-work or planking, above the floor; having the whole about two feet deep, and three or four to five or six feet wide; this is to be filled with hot dung or tanner's bark, carrying it up six inches higher than the top of the pit, to allow for settling; and if a dung-bed, lay earth or tan-bark at top, four or five inches thick.

The pots are to be placed upon this, plunging them to their rims in earth, as before mentioned; but if the bed be made of tan, plunge them therein, having no occasion for earth upon such beds to plunge the pots in.

In this frame, or glass case, let the plants have fresh air daily; and give plentiful supplies of water: and by the middle of June they will be advanced to a large size, and may be removed, in their pots, into the full air, in fore-courts, or any principal compartment in the pleasure-ground, &c.

*Prick out tender Annuals which were sown last Month.*

Where any of the tender annual plants, such as cockscombs, tricolours, &c. were sown in April, they should now be pricked out the beginning of this month.

They must be pricked out on a hot-bed, observing the method directed in the former months.

## JUNE.

*Transplanting Annuals.*

Now plant out all the hardier kinds of annual flowers, as also many of the tenderer sorts into the borders, beds, and other different parts of the garden, where they are to remain for flowering.

The sorts proper to plant out now are French and African marigolds, chrysanthemums, persicaria; the tree and purple amaranthuses, the egg plant, stramonium, palma-Christi, love-apples, Jacobaea, yellow sultan, nolana prostrata, scarlet convolvulus, and the tobacco-plant.

Plant out also the marvel of Peru, balsams, and capsicums, the China-asters, Indian pinks, Chinese hollyhocks, mignonette, and ten-weeks stocks, with the large convolvulus, and suchlike sorts; but the last generally succeeds best when sown where it is to remain: also, among the above, may plant in the borders, &c. for the greater variety, some of the common sorts of cockscombs, tricolours, globe-amaranthus, &c.

Observe that all the above and such other annual plants as are now to be transplanted, should, if possible, be removed in a showery time.

Let them be carefully taken up with balls, or at least with as much earth as will readily hang about their roots; and in that manner plant them in the beds, borders, pots, or other parts of the garden.

As soon as planted, give every plant a little water; and in dry weather repeat the watering occasionally, till they have all fairly taken root.

*Tulips, Crown-Imperials, Jonquils, &c.*

Tulips will now be mostly, in general, past flowering, and their leaves decaying: it is then proper time to take up the roots where intended, and to separate the off-sets. Let this be done in dry weather; and as soon as they are taken up out of the ground, spread them upon mats a little in the shade from the mid-day sun, to dry.

When they are thoroughly dried, and somewhat hardened, let them be very well cleaned, and separate all the off-sets from the large roots; and then put up each sort, separately, in bags or boxes, or upon shelves; and the whole kept in some dry apartment till September, October, or November; at which time plant them again.

*Guernsey Lily, and other Autumnal Bulbous Roots.*

May now transplant or remove any of the autumnal flowering bulbs, such as Guernsey and Belladonna lily; the leaves will now be decayed, which is the proper time to remove them.

But these need not be taken up oftener than once in two or three years, especially the Guernsey lily, which is then most necessary to be done to separate them from the increased parts, or off-sets; and by taking them up and parting them, and then planting them into a new-prepared bed,

or singly in pots of new compost, it will encourage them greatly, and they will shoot and flower much stronger.

They may either be replanted directly, or soon after removal, or housed till July or August, and then finally planted; and which, in the full bulbs, will all flower the same year, in autumn; and the off-sets, after having one or two years' growth, will also flower in perfection.

These roots should generally be planted in pots of light sandy earth; or some in beds of similar soil; but it is most advisable to plant a principal part in middling pots, for the convenience of placing them under shelter in cold or bad weather, in autumn and winter.

They commonly flower in September and October; at which time those in beds should be sheltered occasionally, in very wet and stormy weather, either with a frame and glasses, or a covering of hoops and mats; and those in pots may be placed in a green-house, or a frame, &c.

And during the winter season, the beds or pots wherein the roots are deposited, should be sheltered with a frame and glasses; or the pots removed into a green-house, or frame, in their flowering state.

#### *Ranunculus and Anemone Roots.*

The ranunculus and anemone roots, that are past flowering, should also, as soon as their leaves begin to wither, be taken out of the ground.

There is a great deal of care required in taking

up these roots, as being small, and nearly the colour of the earth they grow in: it should be done in a dry day, and when the ground is also pretty dry; or, for the greater certainty of finding all the roots, especially the anemones, and their small off-sets, may sift the earth of the bed as deep as they are planted, which may be more readily effected if a light meliorating soil, paring it up neatly an equal depth, and so search for the roots among the little lumps of earth and stones that remain in the sieve.

When the whole of both sorts is taken up, let them be properly dried and cleaned, then deposited in boxes, &c. and place them in a dry room, till the time for planting them again in autumn and spring.

#### *Hyacinth Roots.*

If any of the early flowering curious hyacinth roots which were out of bloom last month, were then taken up, and laid sideways into a ridge of dry earth to plump and harden, they will now be in proper order to be taken up and housed.

Take them up in a dry day and clean them; then spread them upon mats in a dry place for a few days; and put them up in close and dry boxes, till September or October, &c.; then plant them again.

Where any hyacinth roots of the fine double kinds still remain in the beds where they blowed, they should be taken up in the beginning of the month, or when their leaves decay.



*Management of Autumnal Flowering Bulbs.*

The beginning or middle of this month is still a proper time to take up, or transplant most kinds of bulbous roots that blow in autumn.

In particular, colchicums, autumnal crocuses, and narcissus, Guernsey and Balladonna lilies, &c. and such other autumnal flowering bulbs, or tuberous roots, whose leaves are decayed, and the roots not in a growing state.

When the roots are taken up, let all the off-sets adhering to the main bulbs be taken away; the roots may then be planted again directly, or may be kept out of the ground some time: but not longer than the end of July, or till the first or second week in August; because, if kept longer out of the ground, they will not blow with any tolerable degree of strength in autumn, as all these sorts commonly flower in September and October; generally unattended by leaves, which come up soon after the flowers fade.

*Cyclamenz.*

This is a proper season to transplant cyclamenz: the leaves being now decayed, may take up the roots and part the off-sets, if any; then new-prepare the mould and plant them again.

The principal varieties of this small, but delicate flower, should mostly be planted in pots, for moving to occasional shelter; or some hardier sorts may also be planted in the ground, under

protection of a warm south wall, &c.; for if in a more exposed situation, the roots would be liable to suffer in winter, and not flower well.

But when these roots are planted in pots, they may be moved into a green-house, or placed under a garden frame in winter.

This plant generally begins to flower in February or March, and some in autumn and winter; grows but a few inches high; but the flowers are of curious structure, and delicately beautiful.

### *Propagate Fibrous-rooted Plants.*

Propagate perennial fibrous-rooted flowering plants, by planting cuttings of the young flower-stalks.

By this method, the double scarlet-lychnis, lychnideas, double rockets, and several others of the like perennial plants, may be increased.

Let some of the stoutest flower-stems be cut off close to the head of the plant; cut these into lengths of three or four joints each; plant them about four inches asunder, in a shady border, putting two joints of the cuttings into the ground, and water them as soon as planted.

It will be a good method to cover the cuttings close with hand-glasses; for this will greatly promote their taking root, giving them necessary waterings.

### *Transplant Seedling Perennials and Biennials.*

Transplant from the seed-beds the wall-flowers, stock July-flowers, sweet-williams, carnations,

pinks, and columbines, &c. which were sown in March or April.

They must now be planted into nursery-beds about six inches asunder, and give them a good watering, to settle the earth properly about their roots.

The plants are to remain in these beds till autumn or spring, and are then to be planted out for good, into the borders or spaces where they are to remain, and in which they will all flower the next year in their respective seasons. Though, as to the stocks in particular, they having long naked roots, it is advisable to plant some at once where they are to remain in beds, borders, pots, &c.

Transplant also the hollyhocks, tree-primrose, foxgloves, and pyramidal campanulas, Canterbury-bells, and Greek-valerian, single rose-campion, rockets, scarlet-lychnis, and such other perennial and biennial plants as were sown two or three months ago.

These must also be planted about six inches apart, in nursery-beds, there to remain till September or October, &c. by which time they will make strong and handsome plants; and may either then be taken up and planted out where they are to remain to flower, or some may remain till spring for final transplanting.

They will all flower next summer, and will make a beautiful appearance, provided they are properly disposed in a varied order in the borders and other compartments of the garden.

*Double Sweet-williams and Pinks.*

Double sweet-williams and pinks may also be increased by laying down the young shoots.

The shoots of those plants will be ready for laying towards the latter end of the month: and are to be prepared and layed in the same manner as the carnations.

The layers of carnations, pinks, double sweet-williams, and the like, raised this year, will all blow next summer.

## JULY.

*Cockscombs, Tricolours, and other curious annual Plants.*

Bring out now the cockscombs, tricolours, double balsams, and all other curious annuals that have been kept till this time in drawing frames or in glass-cases. When they are brought out, let them be immediately well cleared from all decayed leaves; and at the same time stir the earth a little in the top of the pots, and then add a sprinkling of sifted earth over it. When this is done, let the tall growing kinds be each immediately supported with a neat straight stake, of a proper height, and let the stem of the plant be tied neatly to it in different places. Then let every plant be immediately watered, not only in

the pots, but let the water be given all over the head of the plants; this will refresh them and clear their leaves from dust, and make the plants in general have a more clean, lively appearance; they are then to be placed where they are to remain.

They must, in dry weather, be very duly supplied with water, and this must be practised in general to all such annuals as are planted in pots.

### *Sensitive Plants.*

The sensitive plants, where any have been raised in the hot-beds of tender annuals, should still either be continued if but of small size, to forward their growth, or otherwise protected under glasses, &c. whereby to preserve their sensitive property, which is generally the most lively when kept in a hot-house. But being raised as above, to some advanced growth, they may, during the summer, be preserved in a green-house, glass-case, or garden-frame under glasses; for when fully exposed to the open air, they lose much of their sensation, in which consists the principal merit of these plants, chiefly for curiosity.

These plants are singularly curious on account of their leaves consisting each of numerous minute pinnæ, which, on the least touch, quickly contract themselves, and do not recover again in less than an hour.

*Lay Carnations and double Sweet-williams.*

Continue to lay carnations to propagate them; and also double sweet-williams.

This work may be performed any time in this month; but the sooner it is done the better.

Examine the layers from time to time, and see they keep securely in their places; where any have started, let them be pegged down again in their proper position.

Let them in dry weather, be often watered; and let this always be done with moderation.

*Transplant Carnation Layers.*

Take off and transplant such carnation layers as were layed about the middle or toward the latter end of June. They will, by the last week in this month, be tolerably well rooted.

Let them at that time be examined, and if they have made tolerable roots, let them be taken off with great care, cutting them clean off to the old stool, and raise them carefully out of the earth with as full roots as possible: then let the lower naked part of the stalks be cut off close to the slit rooty part of the layer; and cut off the tops of the leaves, and let them be immediately planted.

The layers may either be planted in beds, or the choicest kinds planted singly in small pots; and set the pots immediately in a shady place; and let the whole be directly watered and this repeated occasionally till the plants have taken

fresh root. They are to remain in growth in the beds or small pots till October, &c., or following spring, then to be transplanted with a ball of earth about the roots into larger pots, borders, &c., where they are to remain to blow.

But the layers of the common kinds of carnations, should, when taken off, be planted in beds of rich earth.

Let the beds be three or four feet wide, and rake the surface even; and then plant the layers in rows, about six inches asunder, and let them be directly watered, continuing them in this bed to get strength till October, November, or February, or March; they are then to be taken up with balls, and planted in the borders.

#### *Propagate Pinks by Pipings.*

Still may plant cuttings or pipings of pinks, &c., the beginning or middle of this month for propagation, taking the young shoots of the year. they will yet take root freely.

#### *Transplant Perennial Plants.*

Transplant, where it was not done in June, the perennial and biennial plants, which were sown in March, or April, &c.

The wall-flowers and Stock July flowers in particular, will now want transplanting from the seed-bed, and also the sweet-williams, columbines, Canterbury, or pyramidal bell-flowers, with the Greek-valerian, tree-primrose, single

scarlet-lychnis, and rose-campions; French honey-suckles and hollyhocks, carnations, pinks, rockets, scabius, campanulas, and all others of the perennial and biennial kinds.

They should now be planted in nursery beds. Prepare beds for that purpose, three feet and a half broad; rake the surface even, and then immediately put in the plants; each sort separate, five or six rows in each bed, and about six or eight inches asunder in the row; let them be directly watered, and occasionally afterwards, till they have struck good root.

Let them remain in these beds to acquire a proper growth and strength for a final transplantation next October, November, or in the spring; then taken up with balls, and planted in the borders, or where intended; or some of the more curious may also be planted in pots: all of which will flower in perfection next year.

But of the stock July-flowers, I would advise to plant a good portion at once, where they are to remain in beds, borders, or pots.

#### *Auricula Plants in Pots.*

Look now and then to the choice auricula plants in pots. When dead leaves at any time appear upon the plants, let them be immediately taken off, and let no weeds grow in the pots.

The plants will also in dry weather require to be pretty often watered, and this must not be omitted.



Where any of the above plants furnish strong bottom off-sets from the root, they may be detached and planted in a shady border, giving proper waterings.

*Transplant the Seedling Auriculas and Polyanthuses.*

Transplant the seedling auriculas which were sown last autumn, or early in the spring, as also the polyanthuses that were sown in the spring season; for it is now time to move them out of the seed-bed.

Choose a spot for them, well defended from the mid-day sun. Let the ground be very neatly dug; rake the surface even, and immediately put in the plants.

Let them be planted about four inches asunder, each way, observing to close the earth very well about them; and let them be gently watered. They must after this be kept clear from weeds, and in dry weather should be moderately watered every two or three days during the summer season.

*Take up Bulbous Roots.*

Take up bulbous roots where necessary to be done. Many sorts will now be past flowering and their leaves will be decayed, and may then be taken up in order to separate the off-sets from the principal roots; such as crown imperials, lilies, bulbous irises, and narcissuses; some late

Tulips and hyacinths, and many other bulbs. Let them be taken up in a dry time, and separating the off-sets from the larger, or parent bulbs; some, or the whole may occasionally either be planted again soon after this removal, or more generally the main bulb; and larger off-sets properly dried, cleaned, and put up till October or November, when the borders and beds may be more conveniently dug, and the roots regularly planted.

The small off-sets which are taken at any time from bulbous roots, should as many as you want, be planted by themselves in a nursery-bed, and there remain a year or two to gather strength, and then are to be planted out among the other proper roots in beds or borders.

*Scarlet Lychnis, &c.*

The double scarlet lychnis, and several other plants of the like kind, may still be propagated by cuttings.

The cuttings must be of the youngest flower-stems, or such as are not become hard and ligneous, and should be planted the beginning of this month, otherwise they will not root freely: they are now to be prepared and planted in the manner as mentioned in the last month, and to be treated in every respect as there directed.

## AUGUST

*Watering and general Care of Annual Plants.*

Take care now of the annual plants in pots; they must in dry weather be well supplied with water; let them be watered at least three or four times a week; but in very hot dry weather they will need watering every day.

Likewise continue to support such annuals as require it with handsome stakes, or sticks, and let the stalks or stems of the plants be neatly tied to them according as they advance in height.

Where large decayed leaves appear on these plants, let them be immediately taken off, for nothing looks worse: trim or regulate any disorderly growths; and keep the plants always clear from weeds, and pull up decayed flowers.

*Watering and general Care of Perennial Plants in Pots.*

In dry weather give water also pretty often to all the perennial flower-plants in pots. But this must be done in general; that is, those plants which are past flowering will want water as well as those which are now blowing, and such as are still to bloom.

Take care now of all such perennial plants in pots as have done blowing; let the flower-stalks, when the flowers decay, be immediately cut down; loosen the earth in the top of the pots;

take some out, replace it with the same quantity of new; give a little water, and then set the pots in a shady border for the remainder of the summer.

### *Saxifrage.*

This is now a proper time to propagate saxifrage.

The double white saxifrage produces its flowers in the spring season, in April or May, and makes a beautiful appearance.

They are easily propagated by the small granulus off-set roots, which they produce plentifully; they are generally planted in pots, but may also be planted in the borders or beds, planting several of its small roots in a little cluster together, that the flowers may come up in bunches; otherwise they will make but little show.

The pyramidal saxifrage makes a most beautiful appearance when in bloom; it is propagated by off-sets, which arise from the sides of the plants, and they may now be taken off, and either planted in borders or pots, and will flower next year.

Likewise the thick-leaved purple, and some other dwarf kinds, &c. of saxifrage may also be propagated by off-sets or slips.

### *Auricula Plants.*

The auricula plants in pots should, some time in this month, be shifted into fresh earth.

For that purpose, provide a quantity of fresh light compost; let this be sifted, or otherwise broken very small between the hands, and then be laid ready.

Then prick off all decayed leaves of the plants; detach any considerable increased off-sets; turn the plants out of the pots, trim away some of the earth from its roots, or, if old plants, clear away the earth entirely: cut off any decayed part at bottom of the main root, and let the extreme fibres be trimmed: this done, fill the pots nearly with new compost, immediately, set one plant in the middle of each, close the earth well about the root and bottom part, and fill up the pots properly with more compost.

When the whole are thus planted, let them be moderately watered, and set the pots in a shady place, or shade them occasionally from the sun with mats, and water them in dry weather till the plants have taken root.

Plant off-sets of auriculas: if any are produced on the old plants, either in plants or borders, &c. they may now be detached and planted.

#### *Seeding Auriculas, &c.*

The seedling auriculas and polyanthuses should now, where it was omitted last month, be pricked out from the seed-bed. Dig for them a bed or border in a somewhat sheltered, shady situation, rake the surface even, and then put in the plants, about three or four inches asunder,

being careful to close the earth neatly about the roots, &c.; and give them a moderate watering.

The waterings must, if the weather should prove dry, be repeated moderately every other day till the plants have taken fresh root.

*Sowing Auricula and Polyanthus Seed.*

This is a good time to sow auricula seed; and it will also be proper to sow the seed of polyanthuses.

These seeds may either be sown in a border of light earth, or in boxes, or large wide pots, or flat wide garden pans, &c. and for which purpose, prepare either a bed or border exposed only to the morning sun; sow the seed and rake it in; or, first smooth the surface, sow the seed, cover it in with fine earth a quarter to half an inch deep: or fill some pots or boxes of light earth about the middle or latter end of the month—let the seeds be sown pretty thick, and cover them in with fresh earth about a quarter of an inch deep.

The boxes or pots must then be set where only the morning sun comes, stand there till the end of next month, and then be removed where they can have the full sun.

The auricula seed will probably not grow before the spring, but the plants will then come up earlier and stronger than those sown at that season; giving occasional protection in winter from frost and other inclement weather. But

the polyanthuses will sometimes come up the same season, and will stand the winter well, and will be fit to plant out early next summer, when they will have time to grow strong, so as to be able to produce strong flowers the spring after.

#### *Laying Carnations.*

This is still a proper time to lay carnations and double sweet-williams; but this must be done in the beginning of the month.

Take off all such layers of double sweet-williams as were laid five or six weeks ago, and manage them as directed for the carnations.

#### *Plant out Pink Pipings, &c.*

When the pink pipings, &c. which were planted in June and July, are well rooted and advanced in growth, let them in the beginning and middle of this month be thinned out and planted in three or four feet wide beds, in rows six inches asunder, and give proper waterings; the rest will be fit to plant out next month, and they will all acquire proper strength for flowering moderately the following year, but in greater perfection the second summer

They will obtain a good bushy growth by the end of October, when, or in November, or the following spring, some of the strongest may be transplanted with balls into the borders, &c.

#### *Sow Anemone Seeds, &c.*

Sow anemone seed, and the seed of ranunculuses and spring cyclamens.

It will be most advisable to sow these seeds principally in boxes, or large wide-mouthed pots, or flat garden-pans.

The pots or boxes to be filled with rich, but very light earth: the seeds are to be scattered thereon pretty thick, and covered lightly with sifted earth, not more than a quarter of an inch deep.

#### *Remove Bulbous Roots.*

This is still a proper time to remove or transplant, where required, several sorts of late flowering bulbous roots, now out of bloom, such as the roots of martagons and red lilies; the stalks and leaves of white lilies also now decay; and that is also the most proper time to remove these bulba.

When the roots are taken up, the off-sets must be all separated from them; and, when this is done, the principal roots may either be planted again now in the proper places, or may be dried and cleaned, and put up till October, and then planted.

But the best of the off-sets should be planted again soon, in nursery-beds, each sort separate, and there to remain a year or two: and then may be planted among the other flowering roots.

#### *Transplant Seedling Perennials and Biennials*

Transplant into nursery-beds the seedlings of wall-flowers, stocks, sweet-williams, carnations, and pinks; also columbines, scabiouses, and other



seedling perennial and biennial plants as are still remaining in the seed-bed.

These should be transplanted in moist weather; and the sooner the better, that the plants may have time to root, and get some strength before winter. Let a border be dug for them, or else dig some beds three or four feet broad, and immediately put in the plants about six inches distance from one another, and let them be directly watered.

When the plants have stood in the above beds or borders about two months, or till the end of October, or any time in November, &c. or next spring, a quantity may be then transplanted into the flower borders, and other parts of the pleasure ground, to remain to blow next year.

#### *Gather Flower Seeds.*

Gather the seeds of such flowers as are now ripe, in a dry day, both of all sorts of annuals and biennials, and of such perennials as may be required; spread them on mats to dry in an airy place where the sun can come.

When they are well hardened, beat or rub them out, and put them in paper or canvass bags, or into boxes, till the season for sowing them.

#### *Planting Autumnal Bulbs.*

Plant autumnal flowering bulbs, if any are now out of ground, such as colchicums, autumnal narcissus, Guernsey lily, and other amaryllis,

autumnal crocus, &c. planting them in beds or borders of light earth, and some Guernsey lily, &c. also in pots; they will all blow or flower the same autumn; some the latter end of this month, and the others in the next month, and October.

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## SEPTEMBER.

### *Planting Hyacinths, and Tulip Roots, &c.*

In the third or fourth week in this month it will be time to begin to prepare for planting the choice hyacinth and tulip roots for an early spring bloom.

Let the beds for these bulbs be dug or trenched one or two spades deep, breaking the earth fine, and lay the surface even: and let the beds be three feet and a half, or four feet wide, laid somewhat moderately rounding, and rake the surface smooth.

Then either the latter end of this month, or in October or November, plant the bulbs in rows, lengthways the bed, six to nine inches asunder, and the same distance in the row; but not nearer than six inches, and about three inches deep.

As to the method of planting in beds, may either draw drills with a hoe, placing the bulbs bottom downwards in a row along each drill, and cover them in with the earth; or may be planted in holes made either with a thick blunt-ended

dibble, or the large bulbs occasionally holed in with a garden trowel: or, instead of either of the above methods, may with a spade or rake, trim the earth evenly off the surface of the bed, into the alley, the depth required to plant the roots, which then place at a proper distance upon the surface of the bed, pressing them gently, with the hand, a little into the earth; then with the spade cast the earth out of the alley evenly over the roots, the depth as above.

May also plant some in the flower borders, and in pots, boxes, &c.; likewise hyacinths in bulb glasses of water.

Any other bulbous roots may likewise be planted towards the middle and end of this month.

### *Carnation Layers.*

Take care now of the carnation layers; where there are any still remaining on old plants, and properly rooted, let them be transplanted now as soon as convenient, some time before the latter end of the month, that they may have time to take good root before winter.

The choicest kinds of these layers you may plant in small pots for the more readily protecting them in winter. The layers of the common sorts you may plant into nursery beds in a warm situation, and some of the strongest layers may be planted out at once into the borders, or where you intend them to flower.

Any carnation layers that were planted off as

above, last month, or early in this, should, if a warm dry season, have occasional waterings.

#### *Auricula Seed.*

The seed of auricula may still be sown, when not done in August.

These seeds should at this time be sown in large white pots, or in boxes filled with earth. Let the earth be light and rich, and broken very fine, and the seed should be sown tolerably thick, and covered a quarter of an inch, or thereabouts, with earth.

The pots or boxes should be placed out of the mid-day sun, till towards the end of this month, and then set in a warm situation.

The auricula plants raised from this sowing will flower the next spring twelvemonth.

#### *Transplant Perennial Plants.*

Dig and prepare borders towards the latter end of the month for planting various perennial and biennial flowers; and in which may then transplant some of the strongest and best plants which were raised in the spring and beginning of summer, or before, according to the different sorts.

They may be transplanted any time after the middle of the month: such as carnations, pinks, and sweet-williams; also the seeding wall-flowers, stock gilliflowers, and columbines, with many other sorts, both seeding-plants, and such

as were raised from slips, off-sets, layers, pipings, &c.

In selecting the above, or any of the various different sorts of perennials, &c. for the decoration of your borders, or other flower compartments, generally choose a proper variety, more or less; and if not furnished therewith in your own garden, may obtain them as required at most of the nurseries;—observing in either of which, to prefer those of the fullest good growth according to their kinds: and as many sorts both of seedling plants and others raised from layers, pipings, slips, off-sets, &c., may now be readily transplanted with small balls of earth about their roots it should be done accordingly, and the plants will thus scarcely feel any check by removal; or let others be removed with as full roots as possible, planting the whole, in the allotted places, in a varied order; and give directly an immediate watering to settle the earth closely about the roots.

They will soon take root the same season, and will all flower next year in good perfection.

#### *Sowing Seeds of bulbous Flower Roots.*

The seeds of tulips may still be sown, and also the seeds of hyacinths and crown imperials, with the seeds of fritilars, and of most other bulbs.

These seeds may be sown in beds or boxes; they will succeed in either; let the earth be rich and light, and broken very fine, and lay the sur-

face perfectly smooth. Then sow the seed separately on the surface, and tolerably thick, and cover them with light sifted earth, near half an inch deep.

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## OCTOBER.

### *Auricula Plants.*

The auricula plants in pots must be now removed to a sheltered dry situation in the full sun; and if where they could be occasionally defended from excessive rains, snow, and severe frost during the winter, it would be of much advantage; for, as formerly observed, although auriculas are hardy to stand the weather, yet, by having some occasional protection, it preserves them in a more firm sound state, to flower in best perfection.

In default of any covered protection, the pots may, in very wet weather, be occasionally laid down on one side, with the tops towards the sun, to protect the plants better from any tendency to rot by too much moisture; but in all dry weather, retain them in their upright position.

However, the pots containing plants of the more curious or estimable kinds may easily be moved under some place of occasional shelter, just to have protection from excessive rains, snow, &c. and for which purpose, the pots may

now either be set close together within a garden-frame; and when the weather is bad, defend them with the glasses; or may be placed similarly in a bed, or border near a south wall, &c. and arched over low with hoop-beds, to support a covering of mats, &c. which may be applied to shield the plants from heavy rains, snow, and rigorous frost.

Let all the dead leaves be taken off the plants.

#### *Care of Carnation Layers in Pots.*

Carnation layers, which were in August, or the last month, planted in pots, should, in the last week in this month, be removed in their said pots to a warm sheltered situation for the winter.

Or, the pots containing the prime varieties may be placed close together, where they may be occasionally shielded in the excess of bad weather; such as in a garden frame, placed on a bed of light dry soil, raised three or four inches; and in which may plunge the pots to guard the roots better from frost; and in bad weather, defend the plants with the frame-glasses, &c.

They are thus to remain all the winter, and the plants permitted to enjoy the full air in all mild moderate weather; and only when cutting cold, or excessively wet, snowy, or in severe frosts, to be covered with the glasses, and other additional covering, when the weather is rigorously severe; but when dry and mild, let the plants have the daily open air constantly.

But where there is not the convenience of a frame, the pots may be placed in a raised bed of dry compost, and arched over with hoops; and in bad weather, defend the plants with thick mats or canvass, to be drawn over the arches.

*Transplanting fibrous-rooted Flowering Plants.*

Now may transplant into the borders or places where wanted, all sorts of fibrous-rooted perennial and biennial flower plants, which will now take root freely, in a short time.

The sorts proper to plant now are rose-campions and sweet-williams, campanulas, and catch-fly, and you may also plant rockets, bachelor's-buttons, double feverfew, antirrhinums, scarlet-lychnis, and lychnydeas, and many other similar sorts.

The above plants grow nearly of a height, and are very proper to be planted variedly more or less towards the front and middle of the borders, &c. where they will make an agreeable appearance in their proper time of flowering, but especially the double kinds.

Some of the double wall-flowers, and stock July flowers, double scarlet lychnis, double sweet-williams, double rockets, double rose-campion, and the like, should be planted in pots, and removed to some place where the plants can be sheltered in severe weather. These double flowers deserve particular care.

Now also slip and plant polyanthus, and



marigolds, also double daisies, double camomile, violets, London-pride, thrift, hepaticas, gentianella, saxifrage, heart's-ease, lily of the valley, and other low-growing fibrous-rooted plants.

*Propagating Roses and other Shrubs by Suckers.*

Transplant suckers of roses; it is by suckers, from the root, that most sorts of these shrubs are increased; these being dugged up carefully with roots, will make good plants in one or two years' time, and most of them will flower next summer.

Lilacs are also generally increased by suckers, which shrub seldom fails to yield every year plenty; and these may, now, or at any time in winter, when the weather is mild, be taken up and planted out in rows.

Many other shrubs are also raised by suckers from the roots, and this is now a proper time to transplant the suckers of all such sorts.

*Seedling Flowers.*

Remove now all the boxes or pots of seedling flowers to a warm situation.

Let these be placed where they can have the full sun all winter, and where shielded from cold and cutting winds.

These pots, boxes, or tubs, should also be now cleared with great care from weeds.

The beds of seedling bulbs should also, at this time, have good attention; let all the weeds be taken out with particular care; then get some

rich light earth, and sift some of this all over the surface of the bed to the thickness of an inch, or thereabout.

This will be of a very great service to these young roots, but in particular to those which were not removed in summer.

### *Planting in Pots.*

Planting in pots may now be performed to many sorts of perennial flower plants, as also to curious or desirable flowering-shrubs and ever-greens; both with design of having the opportunity of moving them in their said pots for decorating any particular compartments in spring and summer, &c. and also in some sorts for removing them to places of shelter during severe weather in winter: as likewise some for placing in hot-houses, in December and January, for forcing for early flowering.

Likewise bulbous-roots, of any desirable sorts, may now be planted in pots, or boxes, &c.

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## NOVEMBER.

### *Planting various kinds of Bulbous Roots.*

This is still a proper time to plant various hardy bulbous roots, and let it be done in dry open weather, and as early in the month as possible, for any general plantations.

Tulips and hyacinths, if they are to be planted in beds, must be planted in rows six to nine inches asunder, and the same distance, or not less than six inches between plant and plant in the row, and about three inches deep; and such as are designed for the common flower borders may either be deposited in a continued row, fifteen or eighteen inches from the edge, or planted in small patches or clumps; three, four, or five roots together.

Let these roots be planted in such beds and borders as lie tolerably dry all winter; for if the ground be too wet, many of the roots planted now would be liable to rot, or much damaged, particularly the hyacinths.

Crocuses and snow-drops of different sorts may also now be planted; and it is time all these sorts were put into the ground.

These roots may be planted either in small patches, or in continued rows, within five or six inches of the edge of the border, or the patches disposed in a varied order, more or less inward.

Do not plant these roots deeper than two inches below the surface.

Narcissuses and jonquils, fritillarias, crown imperials, gladioles, bulbous-iris, star of Bethlehem, martagons, lilies, and all other bulbous roots that are still remaining out of the ground, may now be planted, when time and dry open weather will permit.

*Planting Bulbs in Water-glasses and in Pots.*

May now plant some bulbous roots in water-glasses, to blow early in the apartments of a dwelling-house, or more early in a hot-house, such as hyacinths, dwarf tulips, polyanthus-narcissus, &c. filling the glasses with clean, fresh, soft water; place one bulb in each glass, the bottom a little immersed in the water; and place the glasses in a warm light room, or in a greenhouse, or hot-house.

Likewise may plant in pots of light dry earth any of the above, and any other moderate growing bulbous roots, either some to flower in the apartments of a house or in the open air, next spring, or also to place some in a hot-house or forcing-house for earlier spring flowering. Observe in planting these bulbs in pots, to insert them only a little depth, or but just covered with the earth.

*Plant Ranunculuses and Anemones.*

The ranunculuses and anemones should also be planted in beds and borders of light dry earth, for a wet soil would be apt to rot these roots; let the beds be three or four feet wide, finished a little rounding with a smooth even surface.

Let the choicest kinds of these roots be planted in beds for the convenience of protecting them in winter, and also in the spring when they are in bloom.

But if you plant them in the borders, let them most generally be put in small patches, four or five roots in each, and the patches may be three or four to five or six feet distant.

These roots should not be planted more than two inches deep.

#### *Care of Plants in Pots.*

Plants in pots, both shrubby and herbaceous kinds, should now, if not done, be removed to a warm dry situation for the winter, when some may be plunged in the ground, the better to guard the roots from frost; and others of a more tender nature placed in frames, &c. to have occasional covering in the severe weather

#### *Transplant Suckers for Propagation.*

Take up suckers of roses and lilacs, and of various other shrubs, to plant for propagating the respective sorts; plant them in nursery rows, where they will make proper plants in one or two years' time, and may then be transplanted into the clumps or borders.

#### *Care of Beds of Hyacinths and Tulips, &c.*

Take care now of the beds of the choicest kinds of hyacinths, tulips, ranunculuses, and anemone roots; and, where accommodated with proper conveniences, it would be advisable to give occasional covering in bad weather.

The most curious sorts of these roots newly planted, in separate beds by themselves, might be very serviceably protected occasionally, by a low awning of hoop-arches and mats, or other covering, which would defend them in some beneficial degree, in time of excessive frost, &c. in preventing its access so fully to affect the new planted roots so materially as if wholly open to the inclement weather.

## DECEMBER.

Take care now to protect the choice flower plants and roots from frost, great snows, and heavy rains; all of which would damage many sorts of curious roots and plants; observing the following general directions in the particular sorts.

### *Care of Auriculas and Carnations.*

The choice kind of auricula plants in pots should now be occasionally defended in very wet weather, great snows, and hard frosts.

If these plants are placed in frames, let the glasses be kept constantly over them in bad weather; or if they are in a bed arched over with hoops, &c. cover them occasionally with large thick mats, or canvass cloths.

But when the weather is mild and dry, let the plants be constantly uncovered.

Or in default of frames or other covered shelters, place the pots, if not done, in a dry warm south border.

The carnation layers of the curious sorts, which are in pots, should also have occasional protection from excessive rain, snow, and severe frosts; but these plants must have the free air constantly when the weather is open and not very wet.

For notwithstanding these above plants, both of auriculas and carnations, are hardy enough to stand the open weather, they, by occasional shelter, are preserved in a stronger sound state to flower in best perfection.

*Protecting Hyacinths, Tulip-roots, Anemones, and Ranunculuses.*

To the beds wherein the fine hyacinth and tulip roots are planted, some occasional protection, when severe weather, would be of good advantage in preserving the roots more effectually sound, or from material injury.

On that occasion either cover with a low awning of mats, &c. or provide some kind of dry long strawy litter, pease-straw, fern, or such like; and when the frost discovers to set in hard, lay a tolerable warm covering over the surface of the beds; but when the weather is less severe, all covering must be removed.

When any of these plants, of the more estimable curious kinds in beds, appear above ground, it would also be of material advantage to afford them some occasional covering with large thick mats, &c. as above, in time of severe weather.

Likewise to the more curious and valuable ranunculuses and anemones, which are planted in beds, some protection when the frost is severe would be greatly beneficial, by covering the beds as above.

#### *Care of Seedling Plants.*

Small young tender seedling flower plants, or roots, also demand care at this generally unfavourable season.

Such young tenderish kinds as are in pots, or boxes, may now if not done before, be protected somewhat by placing the pots, tubs, or boxes, in a warm border, or may also plunge them in the earth; and in hard frost, long straw litter may be laid on the surface, and around the sides; the same protection of covering may also be given to such as are in beds.

#### *Protecting New-planted Shrubs and Trees.*

New-planted shrubs and trees, of the more tender or choicer kinds, should have their roots well protected in hard frosty weather, by laying some dryish mulchy dung, or long dungy litter, a good thickness on the surface of the ground over the roots of each plant.

This work is necessary to such of the more tender and curious kinds of shrubs and trees as were planted in autumn, that it should not be omitted now, if it was in the last month.









