

THE
MODERN CULTURE
OF
SWEET PEAS

Thomas Stevenson

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THE MODERN CULTURE OF SWEET PEAS.

BY

THOMAS STEVENSON

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THE AUTHOR GATHERING BLOOMS FROM SPRING-SOWN PLANTS DURING THE
FIRST WEEK IN JULY.

(The bloom in the foreground is Mrs. Hugh Dickson.)

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INTRODUCTION.

IN most of the works on Sweet Peas the history of the flowers has been made a great deal of; in fact, much more so than the general reader cares for, and, therefore, I intend in this little work to leave out all the history that does not concern the cultivation of the Sweet Pea, and merely to put before the reader my own actual experiences, gained in the observation and cultivation of this increasingly popular flower during the last fifteen to twenty years.

At the outset, I hope I may be pardoned if I say that during that time I have taken a deep interest in all that appertains to the Sweet Pea, and have cultivated most of the varieties that have been introduced in each season. I hardly think there is one variety popular twenty years ago that is grown in any quantity now; and if there are any, I am quite sure they are absolutely unnecessary, as we have varieties in the Spencer form that have all the delicacy of colouring that the old favourites had, practically all of which were raised by the grand old man of the Sweet Pea world—Henry Eckford.

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What a debt of gratitude we Sweet Pea lovers owe to him and his untiring efforts for the many wonderful breaks in colour he obtained, long before Dick, Tom and Harry were trying their hand at the cross-fertilisation of the Sweet Pea.

For many years he practically kept the whole thing in his own hands, but when once he did put a new variety on the market there was very little chance of it breaking away again, either for good or bad, and but for the advent of the variety Countess Spencer, I feel sure the Sweet Pea trade would be working in a much closer groove than it is at present. But it was not to be; and we now have varieties innumerable, all of which have some outstanding merit of their own, either in shape, size, quality, or colour, and if one individual does not like a particular variety, there are probably hundreds that do.

Last season many enthusiasts were of opinion that we had almost come to the end of our tether in new breaks of colour, but after visiting the shows and trials this season, I am quite convinced that whatever good things we may have already, there are still more to follow. Those who saw Mr. Bolton's bunches of Charles Foster at the 1910 show of the National Sweet Pea Society must have felt that we had indeed got a good thing here. The same may be said of his Red Maroon variety (No. 230 in the trials), with a yellow keel—a decided break in the dark varieties. This is the kind of new variety that we require, and it will be welcomed on all hands, being quite unique in colouring and in form—not a Pea new in name only, that, when distributed, will be a disappointment to everybody owing to the fact that it is only a shade lighter or darker in colour (according to the cultivation it has received) than some already existing, and possibly cheaper, variety.

I am afraid this wholesale distribution of unfixed and similar varieties, many of which are sent out by different firms under different names, has gone a long way towards "killing the goose that lays the golden eggs."

This has not been altogether intentional on the part of the seedsmen, as many of them are working on definite lines towards the production of new and fixed varieties of Sweet Peas. Not unlikely many of them make the same crosses, and if this is done it is only natural that in many cases they obtain the same, or I ought to say similar, results.

Again, after some varieties have remained fixed for several years, for some obscure reason they will sometimes break away in all directions, and when this occurs each grower, with an eye to business, selects the best seedlings or sports, as they may be termed, and gives them a name, and after a year or two puts them on the market, and in very many instances the introductions of the respective growers are one and the same thing, and thus we get multiplication of names. But all this, I feel sure, will be rectified as far as possible in the near future; many of our leading growers fully realise the necessity of keeping down names, and are working hand in hand to put on the market really new and fixed stocks, and the independent trials which many of them carry out and invite the public to see are the chief means they employ to see which varieties are alike, or are distinct enough to warrant them appearing in their catalogues.

There is still plenty of room for improvement in many of the existing shades of colour. In the pinks and cream-pinks we have some really grand things; in crimson also we have two or three perfect in form, which will stand the sun; in yellow or cream there is room for a better flower, as Clara Curtis, unless grown very well, is somewhat thin, and has not the habit of giving too many fours. In whites we have

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also one or two good varieties, but we have yet to get one of the size and substance of Sunproof Crimson or Mrs. Hugh Dickson. F. A. Wellesley, as grown by Mr. Hopkins, was good, but could hardly be called white, and it is rather thin in the standard, as is also a white form of Mrs. A. Ireland. Rapid strides are being made in the orange shades, and I have one in my eye which is as large as any flower I have seen, and much deeper in colour than Helen Lewis, which it very much resembles in form. In salmons much has been done of late, and now that we have one which is reputed to stand the sun, we may soon hope to get this good quality in a larger and better-formed flower. The colour which calls for most attention is a good deep blue, for at present we have nothing worth growing when compared with the good flowers in other colours. It is a colour that is quite telling for exhibition purposes, as when placed near some other colours it not only contrasts well with them, but seems to add body to them, notably the yellow shades. In scarlet also we want a good, large waved flower that will stand the sun; there are several about which appear really good, but none of them are so good but what they may be materially improved upon, and I believe we shall get nearer perfection in the very near future. Messrs. Dobbies, of Edinburgh, have some wonderful flowers in this colour among their seedlings.

These few remarks go to show that there is still plenty of scope for those who are interested in cross-fertilisation to improve existing varieties or colours, as well as to aim at getting other new and pleasing shades, and nothing could be more interesting; but it is quite useless for anyone to take up this delightful phase of Sweet Pea culture without he can add to the area of his garden each season as the seedlings require more room; while to begin with the grower

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must have a set purpose in view, and not begin to work haphazardly, and, what is more, anyone studying Mendel's laws, and applying them, will stand by far the greatest chances of success.

At the present time there is no question as to the immense popularity of the Sweet Pea, and small wonder at it, seeing the amount of pleasure one can get out of even a few clumps of Peas; and what a quantity of bloom can be gathered from them, covering a season of from three to four months, and often longer than this. I should say it is quite impossible to find a plant of any description, much less a hardy annual, that one can go on cutting at for such a length of time; yet it is this continual cutting of the blooms that prolongs the life of the plant, and if one hears complaints of a man's Peas having "gone over" quickly, you may be sure it is from lack of attention in keeping the flowers removed, providing, of course, that he has done his ground well before planting.

Among amateur gardeners the Sweet Pea is nowadays the one flower with them, many discarding every other flowering plant to make room for more of their favourites. I could point to the gardens of several of my amateur friends where there is nothing else in the garden—vegetables and everything being displaced by Peas. I don't say that this is as it should be, but it just shows the hold, or I might say the deep root, that the "cult" of the Sweet Pea has taken on the general public: and what more pleasant or beneficial hobby can a man have, especially anyone who is penned up in an office or shop all day. It means health to him. If a man cultivates anything from five to ten rod of ground for Sweet Peas, and does it well, it will mean that he has not a great amount of time to waste from January to October. Fortunately, the laborious part of the

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work comes during the cold weather, when it is not quite so trying to a man who is not used to really hard manual labour, and as this can be spread over a period of from two to three months, it ought not to prove particularly arduous. After this is got over, all the rest of the work is very light, and might well be done during the evening with the pipe on, in the case of the amateur, and it is this class of grower that I find so particularly keen. Nothing is too much trouble to them, especially when they are endeavouring to get their Peas in good enough condition to compete at some local show.

To this section of my readers I shall endeavour to explain, in as simple a manner as possible, what they may and can do towards the successful cultivation of this beautiful flower, and when I say that two amateurs I know, who had never had any experience of gardening up to two years previous, in 1910 grew Peas certainly stronger, and with flowers as large as my own (without, perhaps, quite so much refinement in them), it goes to prove that anyone with a little ground, any amount of energy, and a few practical hints now and again, can at least grow blooms if not quite fit to win the Eckford Cup, quite good enough to compete in many of the ordinary classes at the National or any other show.

Many people will at once say I do not care a rap about exhibiting my Peas; in fact, many people do write me in that strain, but they say I should like to get Peas with good long stems the same as I see so-and-so exhibiting: well, then, the only way is to take the same trouble and give the same care to the cultivation as your friend does, and then even on poor soil quite good results may be obtained, which if they are not required for exhibition purposes, these good long-stemmed flowers will be more than

appreciated by those who undertake the decorating in the house, and whether this is for the mansion or the cottage the satisfaction they will give in either case will quite compensate for the extra time and trouble given to them.

If there is one fault more common than another with Sweet Pea growers at the present time, whether they are gardeners, amateurs, or cottagers, it is that they—or I should say *we*—grow too many varieties. Personally, I know that I grow too many, taking into consideration the limited space at my command for Peas (about twelve rods), and were it not that I am a member of the Floral Committee of the National Sweet Pea Society, I would not grow more than one third of the varieties that I now grow; but I feel, to speak authoritatively, one must not only see growing, but actually grow, many of the varieties for comparison, and watch them under varying weather conditions, as it is only this constant observation that gives one a true idea of the merits of individual varieties.



SOIL AND SITUATION.

It has been said that the Sweet Pea can be grown in any kind of soil, no matter what its nature, whether it is cold and heavy, or whether it is light and warm. This I thoroughly endorse, though, of course, it will be with varying degrees of success, according to the knowledge of the individual who is cultivating it. I certainly have not yet seen soil that, with proper and liberal cultivation, will not produce at least fairly decent Peas. Though my own soil is heavy and of rather a difficult texture to deal with, it will grow very fair Peas, and some of the largest and best flowers I have seen these past few seasons have been grown practically on sand, so light that during dry weather in the spring, where the ground was not cropped, the wind would blow it about. The only treatment this ground had was just bastard trenching with a very moderate dressing of manure. During the first fortnight, plants grown on this ground produced very fine flowers on stems varying from one foot to sixteen inches in length, and had they been attended to in the matter of feeding, watering, and mulching, they would no doubt have continued giving good blooms for a very considerable time. As it was, they flowered very well for about six weeks, though during the latter part of the time the stems were rather short and wiry, quite out of proportion to the size of the flower, which was very good indeed. This only serves to show that, if one has very light soil, good

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flowers can be obtained by giving a little extra attention after they commence blooming, also on this class of soil during prolonged wet weather, the bine will not grow away too freely, neither will the stems and flowers be so soft as those growing on heavy soil under the same weather conditions.

On heavy soil the plants will continue blooming over a longer period, and will, no doubt, give longer and flatter stems, but it does not follow that the flowers will be proportionately larger or more flowers on a stem; in fact, I am very much disposed to think that the reverse is often the case. With heavy soil the preparation of it will be a very arduous operation, and great care must be exercised in choosing the time for trenching. This will vary very considerably according to the nature of the soil. If the spring is wet there may be some difficulty in getting the ground in a nice friable condition for planting, and it may mean that the young plants will have to stay in the pots or boxes for some few days, or it may be a week or two longer than they ought to, thus receiving a check, and even after planting they may be some time longer getting a start in the heavy soil than in soil of a lighter nature. It will also be found that slugs will be more troublesome, the rougher or more lumpy nature of the soil providing much more harbour for them. But with thought and attention these troubles may be overcome, and when once the plants begin to grow away they will make up for lost time, and, as previously mentioned, may give extra large and long-stemmed flowers. So that whatever the nature of the soil, there is something to be said in its favour, and a season that suits one may be all against the other.

Were I asked what class of soil I should prefer for the cultivation of Peas, I should at once say a fairly rich porous

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loam, that has no tendency to bake during dry weather, and which will drain itself pretty freely during continued moisture. So anyone having this kind of soil in his garden may feel that he has at least a little natural advantage to start with, but, unfortunately for us, there are very few who can choose their ground, but must make use of the piece of garden attached to his or her house, and it is really astonishing what results are obtained even in what may often be termed a backyard.

In large establishments it is, of course, very different, and a site may be chosen for the Peas which may suit their requirements in every way. If possible, the ground selected should be fairly open, though if sheltered somewhat from the prevailing winds so much the better; at the same time it is not desirable that they should be planted near to or under trees, as the roots from the trees are likely to rob them of both food and moisture. Yet a little shade during the hottest part of the day might in some seasons be a distinct advantage, especially to some of the orange, salmon and mauve-coloured varieties. The scarlet and crimson varieties now being practically free from scalding, they do not require consideration in this matter of shade.

Generally speaking, the more open the ground, and the more air that can pass through it without danger from rough winds, the better and sturdier will be the haulm, and providing this is hardy and in good health, good bloom is bound to follow; but once the haulm becomes attenuated through want of light, or owing to the sodden state of the subsoil (this latter is not always preventable), the flowers will naturally be poor and thin, and it will take all one's persuasive powers to rectify things again, even if it can be done at all.

Wherever possible, the ground chosen should be that

which has not had leguminous plants grown on it for a season or two, but this is not imperative, as good Peas can be, and are, grown on the same ground for quite a number of years, but now we are all more or less liable to suffer from attacks of fungoid diseases, it is as well to change the ground as often as possible.

ATMOSPHERIC EFFECTS.

One other very significant factor towards the successful cultivation and exhibiting of Peas (the latter in particular) is the atmospheric conditions that prevail in the neighbourhood or locality. These we cannot regulate, and though the plants in the young state are benefited or otherwise by them, it is after the plants get into bloom that they really show the effects of the atmosphere.

We all like to see dry weather overhead during the time our flowers are opening for a show, but if the sun is very hot, and there is a fairly drying wind, the flowers will open somewhat small and thin, and have a decided tendency to lose colour.

On the other hand, if the weather is dry and fairly dull, with just a touch of moisture in the air, without being actually wet, the flowers will open slower, but they will be better, both in size, substance and colour, so that it may be inferred from this that those living where the atmosphere is generally soft and somewhat moist will be able to get more body and colour into their flowers than their less fortunate friends who live in very dry and arid localities. In very low-lying districts, such as the Thames Valley, one is apt to get rather overdone in this matter of moist air, the nights often being very cold, even during the hottest part of the summer. Here night fogs occur which are so laden with moisture that it seems to impregnate the flowers through

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and through, and this is even worse than rain, as often they do not get dry before the sun gets quite hot the following morning, and if they do not actually scald they become very thin and limp-looking, which is very much against them for exhibition purposes. Another point—this time from a nurseryman's point of view. In these localities there is great difficulty in setting seed, so anyone desirous of seed-saving must choose a position which is fairly high and dry.

PREPARATION OF THE SOIL.

The first and by far the most important operation in connection with the successful cultivation of Sweet Peas is the preparation of the soil, and whether the cultivator decides on spring or autumn sowing, or whether he is going to plant out from pots or boxes or sow in the open ground, the thorough tilling of his ground must be considered before anything else. It is little use spending money in buying choice varieties of Peas, or devoting time in the raising of same, if the ground is not in good heart and in a nice friable condition to receive the plants at the proper time. It does not matter one bit whether the grower intends to exhibit Peas, or if he only wishes to have good flowers to cut at, or nice rows or clumps for the embellishment of the garden—this one operation must be thoroughly well done. Some people obtain fair results by just digging the ground in the ordinary way; others bastard trench, whilst again others take out trenches during the winter and put the manure in these as they get it, adding to it all the refuse from the garden, filling them up with soil in the spring, just previous to the time of planting or sowing, whichever the case may be. This latter method may give good results in some seasons, but I am quite sure plants grown in this way will give large floppy flowers on long stems, which have neither

form nor colour about them. That some judges go blindly for such stuff and award them prizes I am very well aware, but a reaction has already set in, and I believe quality will be considered more than it has been, so what should be aimed at is to produce flowers quite characteristic of the variety; that are good in substance and colour, with the flowers nicely placed on good stiff stems; that are not too gross; with a standard that holds itself fairly erect and the wings looking well at you, and not laying open and almost hiding the standard—this latter, and double standards, being to my mind two of the chief defects in a Sweet Pea.

Now to produce this class of flower over a long season the ground should be well trenched at least three spits deep—this applies to light as well as heavy soil. If it has been under cultivation a number of years, the subsoil may be brought to the surface during the operation, but unless you have had some previous experience with your ground it is not wise to do this, as you may have cause to regret it. Generally speaking, on heavy cold soils, after skimming the surface to get rid of weeds and rubbish, and burying it in the bottom of the trench, it is best to keep the top spit on the top. This will entail more work, as it will mean having three trenches open at the same time; but if these are only two feet wide, they may be reached over quite easily without having to tread on any of the ground that has been moved.

When trenching heavy soil, work into the bottom spit as much garden refuse and leaves as you can get hold of, in addition to some good, rich manure. This should be procured from the cow or bullock pen if possible, using it quite fresh; if there is plenty of straw with it, so much the better, as it will tend to keep the soil more porous. In the second spit plenty of manure should be worked in, but it ought not to be brought nearer the surface than this (say from ten to

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twelve inches), whilst in the top spit a sprinkling of bone-meal should be added, as well as a good dressing of soot; this latter will help to get rid of some of the insect pests. The addition of any old mortar rubble, wood ashes, leaf-soil, or anything else of a light, friable nature, will be very beneficial if worked in near the surface, but this might with advantage be left till nearer the time of planting, particularly if the soil is of a very sticky nature; it will then, if fairly dry, prove a very good medium in which to plant the young Peas. If cow manure cannot be obtained, then, of course, any other manure will do, such as stable or pig manure, varying the quantity according to the quality of same.

Now, the great point about the trenching of heavy soil is to well incorporate the manure with the soil (not leaving it in layers in the trenches), and thoroughly well pulverise the two bottom spits as you go on, breaking it up as fine as possible, as no frost or air will get down thus far to mellow it down. The top spit may be left rough, and this, no doubt, will break down with the action of the weather. Even after trenching I often have the surface of the soil ridged, which naturally exposes more of it to the action of frost, sun, and drying winds, and I find these ridges, broken down just before planting, provide nice fine soil for the purpose. In lighter soils it is even more essential that the heavy cow manure should be used wherever it is possible to secure it, but in place of this well-rotted horse manure will do. It would seem that the addition of leaf-soil would tend to further lighten the soil, yet it is one of the best materials for conserving the moisture, providing it is well mixed with the soil, and not left in layers here and there.

If the soil is very light, the addition of some loam will naturally help it, or even clay, well pulverised, may be

used, but work it in well all over, and not just where the Peas are likely to be planted. As I said before, I do not believe in just taking out trenches and filling in with manure and planting on top of them, or making a hole a foot or two wide where there is to be a clump; for if this is done the soil naturally sinks, and afterwards, if the weather is very wet, it forms a natural drain for the surface water, and though this may be an advantage on light soils, it will prove very much the opposite on soils of a heavier nature. In dry weather, too, the soil will crack all round these small holes, or narrow trenches, and thus break off all the young roots that are going further afield to find fresh nourishment for the plant, and this at a time when it is very much needed. So that if you are trenching for only one row of Peas, never let it be less than from five to six feet in width; and if for single clumps, let the space trenched be from four to six feet square, but wherever possible select your piece of ground where all your Peas may be grown near together. They are then well under your eye, and the ground may be thoroughly trenched all over, thus allowing the roots to ramble at will in search of food; moreover, if anything occurs in the way of a fungoid pest attacking the plants, the following season the Peas may be grown on a piece of the garden quite removed from the source of such trouble.

If it is intended to sow out of doors in the autumn, the trenching should be done early in September, which will allow of the soil, that we presume is light, to become somewhat consolidated before sowing. If for spring sowing or planting, the trenching may be done later. Light to medium soils may be trenched any time after November, but on the heavier soils it must be left till the turn of the year; in fact, on really wet, spongy land it is best to leave it till near the end of February, and even then it must only be worked

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during fine, drying weather. This class of soil, after being moved, usually holds a great deal of moisture, and if continued wet weather prevails after it has been trenched, it will need a great deal of working before it can be got into a condition fit to plant.



DATES OF SOWING.

Not so many years ago it would have been quite unnecessary to raise the question as to the best time to sow Sweet Peas, for then nearly everyone sowed their Peas out of doors at one period, ranging from February to the middle of April. Of late years, however, much discussion has taken place about the various dates of sowing, and I have no doubt that every cultivator of repute has his or her pet date and manner of sowing the seeds; and, no doubt, each one obtains results varying from good to bad, according to the suitability of his or her time of sowing to the general conditions of the neighbourhood in which they live. So that locality, nature of the soil, and the date at which good flowers are required, must be the determining factors of when and how to sow, and either of the following methods will, no doubt, prove successful under varying conditions:—

OUTDOOR SOWING IN THE AUTUMN.

For the production of very early flowers, either for the market or for the decoration of the house, this method should commend itself, but only to those who have an ideal situation for Peas. The atmosphere, generally, should be fairly dry, and the soil on the light side, with plenty of drainage. Anyone with soil that has the slightest tendency to heaviness, or that is likely to lie wet during the winter months, must not attempt this at all, for in autumn sowing

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not only must a very liberal allowance for losses from birds and slugs be made, but there is always the chance of heavy losses from frost, and this very often occurs at a time when one is congratulating oneself upon having got nicely through the winter. But on light soils, with a pure, dry atmosphere, it is well worth trying, and if the plants come through the winter all right, the flowers will not only be early, but good.

The trenching should be done in September, as described under the heading of "Preparation of the Soil," so that the seeds may be sown early in October—not later than the second week. Before commencing operations it is as well to decide whether they are to be sown in rows or clumps. I have tried both ways, one against the other, for a number of years, and have quite come to the conclusion that rows are much easier to manage than clumps, while the flowers are not so liable to damage by wind, one row sheltering the other somewhat, and where shading is necessary it is much easier to shade one row than a number of individual clumps. I might add here that if the rows run from east to west, they will only require shading on one side, this, of course, being the south.

For ordinary cutting purposes sowing may be done in one narrow drill, but for exhibition purposes two drills are to be preferred, as it very much economises space, and if the plants are subsequently thinned to a foot apart, it will allow them plenty of room. The drills should be drawn from two to three inches deep, and the double drills a foot apart, allowing from five to six feet between each row or pair of rows, as the case may be.

Before sowing, the seeds should be moistened and rolled in a little red lead, as a precaution against mice and slugs, and they should be sown two to three inches apart, as even under favourable conditions one is apt to lose quite fifty per



PLANTS FROM SPRING-SOWN SEED, SHOWING STATE OF GROWTH ON MAY 30TH.

cent. Cover in the drills with fine soil, and if it is very sandy, a slight treading may be given, but do not overdo this, as the autumn rains will usually firm the soil quite enough.

If the weather is fairly mild, the young plants will soon be through the soil, and as soon as they appear give them a slight dusting of soot, to ward off slugs, continuing this at intervals through the winter as they require it, but let the dustings be slight, as the young plants will not have the same vigour about them to withstand heavy dressings as they have when growing freely in the spring of the year.

If wire Pea guards are to hand, they should be put over the young plants as a protection against birds, or a few benders may be put over the rows. An old fish net stretched over them will answer the same purpose, but the guards are the best, as the wet weather during the winter will soon rot the nets.

Another enemy of the Peas are mice, and they must be either poisoned or trapped, whichever seems the best. A good plan is to place small pieces of bread smeared over with phosphorous paste under the guards or nets, as the vermin will often take this before the young Peas, and prevention is certainly better than cure in this case, as well as in every other.

For trapping, the Little Nipper or Break Back traps are very effective, as also are the old figure-four traps between two slates or bricks, but whatever method you employ to cope with mice, get it in hand as soon as the seeds are sown, as it may prevent a total loss. Besides, it is an expensive hobby feeding mice with Sweet Pea seed at, say, from halfpenny to threepence each.

After the young seedlings appear through the ground,

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they may have the hoe run through them occasionally, at the same time making sure that the soil around the young plants is made very fine during the operation. After this give the slight dusting of soot as advised previously, but do not move the soil during frosty weather, as I have many times seen plants get badly frozen where the soil has been freshly moved, whilst others adjoining on the undisturbed ground have escaped unhurt. It is a common practice with many people to pull the soil up to the rows of Peas after they attain a height of from three to four inches, but as I have never practised it, I cannot say anything either for or against it, though at the same time I cannot quite see why it is done, except to shelter the young plants somewhat. I have never known Peas to be much damaged by frost during the early part of the winter. This usually happens after they get into growth in the spring, when after a sharp frost the sun gets to them before they have thoroughly thawed. The cold winds will also cut them up badly, so to prevent this, place a few small twigs on the sunny or windy side, whichever they are likely to suffer from most, but not too near. I have no doubt this plan will do more good than drawing the soil up to them.

SPRING SOWING OUT OF DOORS.

As the exact treatment is necessary for spring sowing out of doors as I have advised for the autumn, the only thing to consider is the best date, and this, of course, must vary according to the weather and local conditions. In light soil I should not hesitate to sow any time after the middle of February, though on heavier soil it may be best to leave it till perhaps the middle of March, or even later if the ground is wet and climatic conditions unfavourable, but there is very little advantage to be gained—especially if you want

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good blooms—in leaving the sowing after the end of March. Occasionally one hears of wonderful bloom being gathered from very late-sown plants, but this is more the exception than the rule, and in most seasons they are, comparatively speaking, almost a failure. Of course, in spring sowing the seeds may be put a little deeper in the ground, and a little further apart, but be sure and sow thickly enough to ensure a full plant, particularly of the cheaper varieties, as it is very easy to thin them out. If weak spots do occur in the rows, don't forget that transplanting is easily and very successfully accomplished if taken in hand before the roots have penetrated too deeply into the soil. Everything must be done in the way of protection, hoeing, etc., as advised for autumn sowing.

SOWING IN POTS IN THE AUTUMN.

When this system is adopted, the same season's seed should, if possible, be procured, though it is not a necessity. I always try to save a few packets of the leading varieties from the spring sowing, and if they have proved of good form and come fairly true during the preceding summer, then I sow this surplus in the autumn. I then know that I have a pretty true stock to begin with, which is an advantage in these days.

The best time for sowing in the autumn is from the 8th to the 15th of October; earlier-sown plants are apt to get a little too leggy, and those sown, say, a fortnight later do not get strong enough to go through the winter kindly, especially if the month of November is a bad one.

The size of pots to be used is simply a matter of choice. I have used large 60's, sowing two seeds in a pot; 48's with

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five or six seeds in each; also boxes four inches deep, with the seeds sown from one to one and a half inches apart, and in each instance the results have been all I could wish, though for a matter of convenience the 48-sized pots are perhaps the best, being easy to handle, and a nice size to hold a few small twigs, which are necessary to keep the young plants in an upright position when they begin to grow a bit early in the year.

A fairly light compost of loam and leaf-soil, with sufficient sand to make it porous, should be used for sowing the seeds. Make the soil only moderately firm in the pots or boxes, filling them up to about an inch from the rim, which allows half to three-quarters of an inch of soil on top of the seed. Before sowing, it may be advisable to chip a little off the outer coating of the seed, but only in the case of the harder-seeded varieties, or they may be soaked in water for a short time. This will assist the germination considerably, and with this treatment they ought to be through the soil quite by the end of three weeks. Without chipping or soaking, I have found many seeds sound at the end of three months, which, on being chipped, have germinated quite freely within a few days.

After sowing, the pots or boxes should be placed in a cold frame and given a thorough soaking of water, when the lights may be put on till the seedlings appear through the soil. Air may then be given freely, and as the young plants gain in strength the lights should be entirely removed when the weather is at all favourable—and it is always favourable except when it is raining, snowing, or freezing. But when the lights are off it is as well to keep an old net handy to throw over the frames, and thus do away with the risk of the birds taking out the points of the young plants. At the time of sowing, small pieces of bread smeared with

phosphorous paste should be placed about the frame to test the palates of any mice that may be in the vicinity.

After the plants are well up, I have found it advisable to plunge the pots in ashes nearly up to the rim; this will remove the need of watering during the winter, or, at least, till the plants begin to grow away freely in the spring, and, further, it averts all danger of the pots getting cracked should they happen to get badly frozen, which should be prevented if possible. Anything approaching coddling should be avoided, but it is wise to cover the frame or frames with mats or some other covering material in the event of very severe frosts or snow, though should it be a very protracted spell, it is wise to open the frames, if only for an hour or two during the middle of the day. The frames I use for wintering the Peas in are the ordinary box frames that may be made locally or bought from any of the horticultural builders. Amateurs and others not possessing frames may winter the Peas in quite a cold greenhouse, but they must be kept quite close to the glass, with no fire heat whatever, or the growth will become too weak and attenuated.

SOWING IN POTS OR BOXES IN THE SPRING.

These sowings may be made any time from the middle of January to the middle of March, but the most sturdy plants are obtained from seed sown during the first or second week in February. The method of sowing is practically the same as advised for autumn sowing in pots, but it is advisable to give them a start in just a slightly warmer structure than a box frame. The shelf of a cool house is a very suitable place for raising them; or, if this is not available, then the frame may be placed on a very mild hotbed, and the pots placed in this. The hotbed need only be a very small affair sufficient to keep warm during the period of

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germination only, so that as the young plants come through the soil the heat is gradually dying down, and air may be given quite freely, especially during the middle of the day, when the sun may happen to be fairly warm. The same precautions must be taken against mice, birds, frosts, etc., as advised before, and as these spring-sown plants grow freely, they must be watched daily to see that all is well with them, for if losses occur after they get well up it will be almost too late to think of sowing again to make up the deficiency.

The foregoing remarks on the subject of seed sowing may appear somewhat lengthy, but it is in this, the beginning, that I hear of very many failures, not from gardeners, but from amateurs, chiefly owing to some little lack of knowledge; so by describing the dates and methods of sowing it may help many to decide which system is the most applicable to their own particular case or locality. *In addition to this I will add that after studying the matter in every phase, both for light and heavy soils, and when I have wanted good flowers for both early and late shows, I have found that the autumn-sown plants (in pots) have proved over and over again far in advance of those sown in either of the other methods described, and in this lies the great secret of success, the resulting flowers being of such substance and quality.*

But from the very beginning there must not be the slightest idea of coddling; the young plants must be grown as hardy as possible, so that when the time comes for them to be planted out, they are in a fit condition to withstand practically any kind of weather, providing the soil they are planted in is in a good workable condition.

Plants that have been treated as described should be about five inches high at the time of planting out, and furnished with a mass of good, hard roots that are ready to



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take hold of the fresh soil without pushing the haulm into too vigorous growth all at once. Although it will be found that they will come into bloom quite early, say the end of May or early in June, the hold they have of the soil is such that they will continue blooming even after the spring-sown plants have given out, and, as mentioned before, the flowers, generally, will be of a much better size, colour and substance than the spring-sown ones, the stems also being proportionately harder or firmer.

Another point I have noted, more especially during 1910, is the immunity of autumn-sown plants from diseases of any kind, hardly one plant in six hundred being affected by the streak disease, which is more than I can say about the others. This may only be a coincidence, but it is well worth noting, and if this pest can be guarded against by autumn sowing, then so much the better, and I shall be very closely watching to see if the same occurs again next season.



PLANTING OUT.

If the young plants have been hardened off properly, as advised in a previous chapter, they may be planted out any time after the middle of March, allowing, of course, that the ground in which they are to be planted is in good condition.

To make quite sure of the plants being thoroughly hard, they should be removed from the frame a day or so beforehand, standing them some little distance apart, to allow the wind and sun (if there is any) to get well between them, and thus harden the stems; but on no account let them get frozen in the pots, or they will suffer.

I ought to have mentioned that soon after trenching, the whole of the surface of the soil should be freely sprinkled with fresh slaked lime, which will have a very beneficial effect by helping to break it down, as well as adding to the productiveness of it by rendering the manurial constituents soluble, and consequently more easily assimilated by the roots.

Also, a day or two before planting out, sprinkle a little superphosphate over the surface of the soil, forking it in to the depth of four or five inches. If the soil is heavy and inclined to be sticky, a sprinkling of dry wood ashes, leaf-soil or any other lightening material, will help to make it more friable; and if this cannot be done all over, no pains

should be spared to break up the soil very fine just where the rows or clumps of Peas will come.

As mentioned in the chapter on sowing, if growing for exhibition, the best and most economic method is to plant in double rows, the two rows to be one foot apart, and not less than five feet from centre to centre of each row; six or seven feet would be better; but the former should be quite the minimum, and, unfortunately, this is all I can allow myself. The plants may be placed anything from six inches to a foot apart in the rows, and even if planted two feet apart they would quite fill up this space. When planting, it is as well to map out a system, having all the varieties near together that require shading, and on the outside row for the convenience of putting it up. All the varieties of one colour should be placed near together, or in one row, where they may be easily compared one with the other, and this will often save cutting a bunch or two for the purpose.

Should it be decided to plant in clumps, the same system of keeping the varieties together should be followed, and if the Peas are raised several in a pot they must *not* be planted just as they come out of the pot, but shaken out separately and planted quite six inches apart in a ring, say at least two feet over. When planted with a solid ball, the roots do not get away so freely, to ramify through the soil, and often during dry weather the whole clump will collapse.

When planting, each plant should be shaken out separately from the soil, disentangling the roots as carefully as possible. Then make a good hole with the trowel, or cut out a sloping trench, with a clean spade, so that the roots may be laid or spread out carefully, after which the soil should be pressed firmly around them, making sure there is no harbour for slugs near the collar of the plant, or it will be courting trouble at once.

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The autumn-sown plants should have a few twigs placed around them at once to keep them upright, after which they should receive a thorough sprinkling of soot, which operation should be repeated as often as necessary. Spring-sown plants will naturally be rather later, and may not be ready for planting quite so early, but if the soil is in really good condition (and with heavy soil your opportunities must be made use of) and the plants hard, get them out as early as possible, as they are much better off making roots in the ground than in the pots or boxes. These being somewhat shorter in growth, they may not require staking for a time, so after sooting and breaking up the soil nicely between the rows, make provision for stretching a net over the whole batch of plants. This is best done by putting in a post here and there, and running string or wire from post to post in much the same way as covering a Strawberry bed, but, if possible, high enough up to allow of one getting about under it for looking over the plants, sooting, etc. In many instances nets may not be available, so to keep off the birds two or three rows of black thread *must* be strained an inch or two above the plants, and this will be found very effective if properly done.

Although I have never known the young plants, when properly hardened off, to be seriously injured by frost after planting, yet the netting stretched over and around will protect them somewhat from the wind, which is often very injurious to them, especially if from the north or east, and accompanied by sleet. If the position is very exposed, a further protection may be provided in the shape of a few Spruce or Laurel branches placed down one side of the row, as advised for those sown out of doors in the autumn.

On some soils wireworm is a great nuisance, but if the soil has been treated with soot and wood ashes, this ought

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to negative the trouble somewhat; but a sharp look-out must be kept, and any crippled plants made good, but not before the cause of the trouble has been discovered and removed. If the soil is very badly infested, then I would advise boring holes two feet apart between the double rows of plants, and filling them up with Vaporite or some other grubicide, many of which are now advertised, but the reason I mention Vaporite is because I have used this and found it very effective.

After planting and twigging, or small staking, has been done, there will not be a great deal to do for a time, except to keep the ground hoed over after it has been beaten down by rain, and the daily or bi-weekly examination for the pests mentioned above.



STAKING.

This is a matter which calls for considerable thought, and the slack time between planting and staking may well be employed in preparing posts and stakes.

The present system of cultivation is naturally conducive to the plants growing very tall, and on heavy soils ten to twelve feet will be by no means an outside limit. On lighter soils, perhaps nine feet will be as much as they will reach; but whatever height they are likely to achieve, ample provision must be made for them. There are various methods employed for staking the Peas, such as using wide-meshed wire netting, supported by stakes here and there, and where Peas are only grown for seed purposes this may answer well, but it hardly gives sufficient protection for Peas growing for exhibition.

For ordinary cutting purposes, large diamond-meshed wire hurdles might be employed, but even these would require a good deal of support by strong stakes, or poles, if they needed to be carried up to a height of from eight to nine feet. The method I have employed this past three seasons, which has proved an undoubted success, is to drive a strong post in at the end of each double row, with intermediate posts as necessary. To these are nailed three cross-pieces, one a foot from the ground, one near the top, and one midway between the two. The bottom cross-piece is about eighteen inches wide, and the top one only about nine



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inches. To each of these cross-pieces is strained a wire running from end to end of the row. (These posts and wires may with advantage be placed in position before the planting is done.) When this operation is completed, ordinary Hazel stakes may be used, laying them flat against the wires and giving a tie here and there to keep them nicely in position, and, of course, this gives them a very neat and tidy appearance.

If the stakes are not as long as required, then tie them to the two top wires, which will give the desired height, afterwards filling in the bottom with shorter stakes. This may seem a lot of trouble, but if growing for exhibition it is quite necessary, as it is no use growing the Peas well if they are not supported properly, and nothing is more annoying than to find a lot of good flowers of no service at all, through the haulm having grown over the top of the stakes, or, what is worse still, and which often happens, the whole row of stakes and haulm blown right over.

Instead of Hazel stakes, long tapering Bamboos may be used, tying these in the same way to the wires, and at whatever distance apart you wish. This system will necessitate a deal of labour in tying each plant as it grows, but it will be found that the plants will grow wonderfully stocky, owing to the extra light obtained, and all the flowers will be found very clean and strong in the stem, as there are no twigs which they can get entangled in or bruised against.

The initial outlay for Bamboos is considerably greater than for Hazel stakes, but if they are securely tied to the wires, instead of being put in the ground, they will last quite a number of years, and so prove cheaper in the end, Hazel stakes being of but very little use after the first season.

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I have also used string in the same way as Bamboos, straining it to the top and bottom wires. The plants do well on the string, but I prefer the Bamboos, as there is not the same tendency for them to be blown about by the wind, the alternating dry and wet weather causing the string to slacken somewhat.

It will be noticed by this arrangement of posts and cross-pieces that the stakes will slope inward from each side, and by training the bine up on the outside the flowers all grow outwards, and very rarely, if ever, get hung up during growth, unless it is in the tendrils of the Peas. Ordinary rows for cutting may be staked in the same way as culinary Peas, sloping the tops of the stakes outwards in this case, to keep the bine as far as possible from coming through the stakes and falling over; and it is hardly necessary to add that long, bushy stakes should be secured, as even for cutting, with liberal treatment, they will grow very tall. Clumps of Peas, whether they are in the kitchen garden, on the lawn, or in borders, should be staked as neatly as possible, using tall, straight Hazel stakes for the purpose, the tops of which should be tied to a wire or Hazel hoop, made according to the size of the clumps.

I have seen and tried various other methods of staking, but none of them have proved so satisfactory as that described, but whatever method is employed, the great thing is to do it well, and make everything quite secure, so that, in the event of high winds occurring after the stakes get well covered with the bine, they will not get blown about.

TRAINING, TYING, ETC.

Although all staking should be completed while the plants are still small, I nevertheless like the haulm to reach a height of a foot to eighteen inches before I begin any

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training or thinning, as free growth at the outset does much to encourage root action, and that is what is required at this stage. I have seen it advised to give the plants a dressing of artificial manure thus early, and where they are particularly slow in making a start into growth, it may be advisable; but where a little superphosphate has been added to the soil at the time of planting, it is not necessary, and is bound to encourage a sappy growth in the bine, which never gives the largest and best-coloured flowers; in fact, I have proved that the reverse is very often the case.

For present-day exhibition purposes, the thinning of the bine plays a very important part, many people keeping the plants to one stem only. But is this necessary? I venture to say "No," as really first-class Peas can be had by allowing from two to three shoots to each plant, and even six or eight may be taken up, providing there is plenty of room between each for the proper development of the foliage. In any case, however, the shoots should be from four to six inches apart, and more if it can be spared; so that the thinning must be governed somewhat by the space allowed when planting, or the cultivator should plant according to the number of shoots it is intended to take up, making ample allowance for any mishap that may occur.

It may happen, especially with the autumn-sown plants, that the first or central shoot may have become rather hard and stunted, the result probably of unfavourable weather conditions. This being so, do not hesitate to cut this away, and take up one or more of the basal shoots which at this time will be growing away strongly, the flowers from these being quite as good as from the central shoot.

If staked as advised, with the stakes or Bamboos sloping inwards, the growths may be brought to the outside after they have got well clear of the ground, and each one given

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a tie to keep it in position, this operation being repeated as often as necessary, though, if using Hazel stakes, the young tendrils will lay hold of these, and help pretty considerably to keep them in position. But with Bamboos or strings, a tie will be necessary at least every week after the plants get well into growth. The grower will find that spring-sown plants have not quite the same tendency to make as many shoots from the base, and the leader in almost every instance will grow away freely, so that only sufficient sideshoots will need to be tied in, to bring them the necessary distance apart.

After the space is sufficiently covered, all superfluous sideshoots must be removed, pulling them right out from the axil of the leaf, as, if this is not done clean, or if they are only pinched off, they will soon be breaking out again, thus making more work. Some people remove all the tendrils also, but this is quite unnecessary, and even more unnatural than disbudding the shoots; but just previous to a show it may be found necessary to take a few off here and there where they interfere with the free growth of the flower stems.

For ordinary cutting purposes this kind of treatment is quite unnecessary, and the plants should be allowed to grow at will, except in the case of uneven germination of seed sown in the open, when, if the plants are very thin, pinching will induce them to break away a little more freely, and so fill up the row. Also if stakes are none too plentiful, and the rows staked rather thinly, a strand of string or matting may be run along the stakes about eighteen inches above the ground, this preventing the plants growing through the stakes, which are usually rather more deficient in twigs at the bottom than nearer the top.

In addition to the tying, there will not be much to do

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till the plants commence to bloom, but a sharp look-out must be kept on the birds, especially if the season is a dry one, the sparrows, etc., being very partial to the young growing tips. A few pieces of bright tin hung up where they will blow about freely will help keep off these pests, and if it can be arranged for the tin, when swinging about, to strike up against the stakes, the scare will prove all the more effective. Sparrows and tits are the Peas' worst enemies.

On every occasion after tying, endeavour to give the alleys between the rows a good deep hoeing; or, if the soil is heavy, a light pointing over with the fork will do a lot of good, this treatment in the early stages being of even more benefit than mulching with manure.



MULCHING, FEEDING, AND WATERING.

As may be noted at the conclusion of the last chapter, I am not in favour of mulching heavily with manure—at least not during the earlier stages of growth; but in all classes of soil, more especially if inclined to be heavy, a sprinkling of very light manure or leaf-soil might with advantage be put down between the rows before staking, and for a few inches on either side afterwards, this only as a matter of convenience. Hoeing is a splendid operation for the conserving of moisture, and the more often it is done, the better will it be for the well-being of the plants, and only under very exceptional circumstances would I be induced to leave off hoeing in favour of mulching till after the plants have got well into bloom, as I have noticed that until the soil gets thoroughly warm, the plants will not throw really good, long and stiff-stemmed flowers. Therefore it is as well to defer mulching as long as possible, but at the same time one must not let the plants suffer, there being exceptions to every rule. By keeping back the mulching, however, one has at least a very ready means of giving the plants a fillip in the advent of very dry weather, or a show coming on.

On light soils, a mulch of cow manure, with plenty of straw or leaf-mould mixed with it, will prove satisfactory, but for the heavy ground I prefer to use horse droppings and leaf-soil, and this, when dry, may be moved about in

the same way as the soil before mulching. But this mulching material should be well prepared by being turned over several times before it is necessary to put it on; and then, when putting it on, do not just throw it down between the rows anyhow, but work it in well with the hand among the sticks and around the plants, as it is near their stems that the masses of young roots will be found ready to feed on it. By the way, any injury to these young roots would give a very serious check to the plants.

After the mulch has been put on, give a good soaking of water, thereby washing what goodness there is in the manure through into the soil, and not leaving it to be evaporated out by the sun. As the season advances, a little additional mulch may be necessary, especially when it is found that the original mulch is full of roots, and if the plants really want a good feeding, quite fresh horse droppings may be employed, taking care to water in at once, or it may be found that the ammonia arising from them will very quickly burn the edges of the foliage.

It is not advisable at any time during the season to use anything of a close nature for mulching, as it not only looks untidy, but it robs the roots of air, and they will not come up into it as they will into something of a light, porous nature. Thus, short grass mowings should never be used—at least not in any quantity—as in the event of wet weather they form a slimy covering through which no air can possibly pass.

The amount of water that is necessary for Sweet Peas depends very much on the season, and to a greater extent on the nature of the soil, for while water may be given with impunity on light soils, an extra feed with manure or the least excess of water on heavier soil will bring on a bad attack of bud dropping, especially while the plants are

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being brought home to me very plainly in one season when I fed a batch of plants in pots with soot only, and the colour of the flowers was exceptionally good.

During dry weather, even if the plants are not suffering at the root, I have found them very much benefited by a good syringing overhead during the evening after a hot, drying day. This, indeed, may be given as often as convenient, and not only will it do the plants good by washing them free of all dust, but will rid them of all fly, which is very troublesome in some localities during hot, dry weather. Again, if the number of plants are not too many to do with the hand syringe, a little soot-water added will also tend to make the foliage distasteful to either fly or thrip; and, whilst talking about fly, I might mention that Abol is one of the best insecticides to use in case of a bad attack. A pailful of this, with an Abol sprayer, will go over a lot of Peas, and, unless used very carelessly, cannot possibly injure the growing tips.



PREPARING THE BLOOMS FOR EXHIBITION.

After the labour of trenching, sowing, planting and tending the plants for a period of from six to eight months, the pleasure of getting the bloom in good condition for a show is very considerable, more especially if the plants have grown away kindly from the start, and consequently are in a good healthy condition. Many growers, I find, remove the buds until a short time before the date of the show; but unless the plants are backward, or in a weak condition, this is hardly necessary, and I never practise it. The plants should be allowed to flower at will, but the blooms should be removed regularly as soon as they are fit for use in the house, not left on the plant till they are fully developed. This will tend to check the growth of the plants somewhat, and, given favourable weather conditions, the best quality flowers will be produced after the plants have been blooming about three weeks, by which time all the coarseness should have disappeared, and the flowers should then be of good quality and nicely disposed on a good hard stem of moderate length. Stems from fourteen to sixteen inches long are quite big enough for any practical purpose, big, sappy stems, with soft and badly-opened standards, being one of the defects to guard against.

If the plants have been flowering for a while, and the stems are visibly shortening, then is the time to give them a rest by removing the flower-buds; and if only two or

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the flowers weak in the stem and of very poor colour. If fish nets are used, these may remain on for almost any length of time without serious results, as they allow the free passage of air, and at the same time give a fair proportion of shade.

As to which is the best time for cutting is rather a difficult question to answer, the prevailing weather conditions having to be taken into serious consideration, as well as the distance the blooms have to be travelled, and the characteristics of individual varieties, some improving in water, while others go back very quickly. In most instances, the pale blues, lavenders, and mauves improve considerably if cut twenty-four hours beforehand, while some of the pinks, scarlets, and crimsons lose colour very fast if the day happens to be hot and dry. I am quite sure that if the crimson, salmon, and orange-coloured varieties could be cut on the morning of the show, in most instances they would be very much brighter in colour; but if the blooms have to be travelled any distance, they should have at least two or three hours in water before being packed, and even longer than this if it can conveniently be managed.

Whenever possible, the flowers should be quite dry when cut, and care should be taken to cut only flowers that are just on the young side, and those with four flowers only, though, of course, with some varieties this is impossible; but three flowers on a stem must be the minimum. I prefer to cut as soon as they are quite dry in the morning, or after the sun has lost its power in the afternoon, but not after the blooms get damp with dew. After cutting, they should be placed in vases or jars in a cool, airy shed or room, where they may get a maximum of light and air, as, if they are placed in a dull, dark shed or room, the flowers have a decided tendency to close up, and some will not open again

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properly, especially if a little over-advanced, the variety Constance Oliver being a very striking example of this.

Despite all one's scheming, however, it may happen that the flowers have to be cut during wet weather. In this event cut them a few hours earlier, disposing them very thinly in vases, and placing them in a house where a current of air may pass through them. If the air inlet is just over the slightly-heated water pipes, it will help to thoroughly dry the flowers, and it is hardly necessary to add that they must on no account be put very near the hot-water pipes. Where a greenhouse is not available, the flowers should be put in a room where there is a fire, and the windows thrown open—anything rather than having to pack the flowers wet.

PACKING.

Many and varied are the receptacles used for conveying the flowers to the shows. For instance, at one show I noticed an exhibitor unpacking his blooms from an ordinary tin clothes-box, whilst another had cardboard boxes for each bunch, and, as he had several dozen bunches, he had a goodly lot of boxes. These, when tied together, would be very light and handy for getting about, and I have no doubt proved very suitable for the purpose, which could hardly be said about the tin box. For short journeys it matters very little what the blooms are packed in, provided too many bunches are not placed one on top of the other; but for longer journeys suitable boxes or baskets are quite indispensable, if you want the flowers to arrive at their destination in the best possible condition.

I find many growers travel their blooms quite upright in water, with a piece of tissue paper between or around each bunch. This method naturally means fairly deep boxes, and a certain amount of extra weight; but if the flowers, after

being cut, are placed in water for an hour or two before packing, it seems hardly necessary to keep them in water while on the journey. As proof of this I may say that I packed one lot of bloom at eleven o'clock in the morning—at least I caught a train a mile from home at 11.20—and many of these flowers were not removed from the hampers and placed in water till between seven and eight o'clock the following day. This was a pretty good spell, but the flowers came up nicely by eleven o'clock, the time for judging, and as they secured a matter of seventeen first prizes, the results were very gratifying. Of course these flowers were quite dry when packed. Since this experience I have invariably used light, shallow hampers, about two and a-half feet long, eighteen inches wide, and six inches deep, which take about a dozen bunches each, with, say, from twenty-five to thirty blooms in a bunch.

If the weather is hot and dry, the hampers are lined with waxed paper, which to a great extent limits the amount of evaporation; but if, on the other hand, it is dull or wet, and the flowers likely to be a trifle damp, I then use very soft tissue paper instead, and this helps matters very much by absorbing a great deal of the moisture. I find the blooms travel much better in the hampers than in boxes, and they are certainly lighter and easier to handle.

AT THE SHOW.

On arrival at the show, vases must be secured at once, and the blooms unpacked and placed temporarily in them, after which the positions of the various classes can be found out, and the varieties that are to be used for each class may be taken to their proper places right away, which is much better than leaving them huddled up on a small space, or left on the floor, where there is considerable risk of

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VARIETIES FOR EXHIBITION.

The choice of varieties to grow for exhibition is a very important point, more particularly when one's space for growing them is limited. Then, when looking over new varieties at a show, one is apt to be carried away somewhat by their novelty, etc., and to order them without due consideration or enquiry as to whether they are fixed. To be candid, it is not wise to actually depend on new kinds for exhibition in their first season, it being better to make up the desired number from among the best of the well-tried standard varieties. Purchase the new sorts by all means, and grow them; and if they come true you have another string to your bow, and can then decide which of the more familiar varieties are to be displaced; but do not discard a kind that has persistently done well with you over several seasons, without giving it due consideration, as all varieties of Peas do not do this, and though a certain variety may be shown well, and no doubt grows well in some places, it does not follow that it is bound to do so with you; so proceed with caution.

If you have unlimited capital and space at your command, you will, of course, grow every new variety you can get, for purposes of comparison, which is most interesting, and from which you will discover that one variety will be at its best during dull weather, and another, almost of the same colour, when it is very hot and dry, and so on right



MAUD HOLMES (SUNPROOF CRIMSON SPENCER).
(Three-quarters natural size.)

through; from which it will be gathered that it takes more than a casual glance through trials of new varieties before one can actually decide which are the best to grow.

Individual taste will always be a very potent factor in the selection of varieties, but for a season or so the following review may be a little guide to those who are not in the position to see the new varieties exhibited, or to inspect them growing at the National Sweet Pea Society's trials. The names are those of what I consider the best in their colours, taking into consideration, as far as possible, their fixity, etc.

WHITES.

In whites we have some good varieties, but there is still room for a better and larger flower. Freda (Breadmore) is a giant—or perhaps I ought to say improved—stock of Etta Dyke, and I think I may safely name this as the best of the new ones. Florence Wright is also a good thing, but neither of these have been generally grown, so I must not be too definite about them. Failing these two, Nora Unwin is to my idea *the* white, it having a better and more upright standard than Etta Dyke, and in nearly all cases a longer stem, which does not shorten nearly so quickly as Etta Dyke in the event of really hot weather.

CRIMSON.

Crimsons have been decidedly improved during the past two years, and in Sunproof Crimson (either Dobbie's or Sydenham's stock) we have an ideal Pea, the flower being both large and of good shape, certainly standing the sun well, and, I should say, quite fixed. King Edward Spencer is also good, it being a fine grower, usually throwing four flowers on a good stem; but the colour is not so bright as that of the first-named, neither is it quite so true, there generally being two types in it.

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ROSE.

In this colour it seems impossible to beat John Ingman, whether it is bought under the name of Paradise Carmine, George Herbert, Mrs. W. King, or any of the other names under which it is sold. It is a veritable giant, grows well, and gives good flowers in all weathers, with perhaps a little more brilliancy in it when the season is fairly warm. Marjorie Willis is of rather a different type of flower from the above, and of quite a distinct shade of rose, which on the plant is wonderfully pleasing; but it is very disappointing as a flower for exhibition, quickly going soft, and taking on a magenta shade in water. Marie Corelli, an American-raised variety, is very similar to the preceding, and rather softer in colour. It does not fade so badly in water, so, if a second rose-coloured variety is needed, this is the one to choose.

SCARLETS.

This is one of the most telling colours, though as yet we have no variety quite equal in size to the crimsons. Scarlet Monarch (Deal) is, I think, a coming variety, the flower being very nicely waved, and a very bright shade of scarlet. Doris Burt is rather deeper in colour than the preceding, and it may be just a trifle larger in the flower. George Stark, as awarded the medal in 1908, was very fine, but unfortunately it has not often been seen in such good form since, though the variety George Stark Improved seems to be very near to the original.

CERISE.

Flowers in this shade are on the small side, but what they lack in size is made up in colour. Cherry Ripe (Gilbert's) and Coccinea Waved (Hemus) are both very good varieties, either of which would add colour to any collection.

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Rose du Barrii (Alex. Dickson) is another variety that comes under this colour heading. It is very bright, and will prove very useful as a decorative Pea.

YELLOW OR CREAM.

At present we have no finer variety than Clara Curtis, though of this there are some types on the market that are better than others. Paradise Ivory is a grand Pea—in fact, one of the largest and best, but it does not look its best when bunched; still, as it is such a satisfactory grower, it makes a good second string to Clara Curtis. As a Pea for garden decoration it is unsurpassed. Isabel Malcolm and Lady Knox (Dobbie) are both coming Peas, and are beautiful, but as yellows they are no improvement.

BLUE.

This is a colour that might well be divided into two shades—dark and light, but there is no dark blue at present that is good enough to rank as an exhibition variety, Mrs. George Charles (Bolton) being about the best. In the lighter shades we have Zephyr, Kathleen McGowan and Anglian Blue, all of which are identical in colour, and they all throw the same dirty white rogues; but, as growing side by side during 1910, Anglian Blue (E. W. King) was the best grown, with a better flower than either of the others. Flora Norton Spencer is also much the same as the three preceding varieties, and, if anything, is a larger and looser flower, while having the advantage of being quite fixed.

PINK.

The varieties under this colour heading are innumerable, but for fixity Countess Spencer is even now as good as any. Audrey Crier and Marjorie Linzee are both grand Peas,

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etc., and many of them are good; but as classes for Peas generally vary from twelve to twenty-four varieties, there seems hardly room to include many Fancies, as varieties with more distinct colouring are to be preferred to these latter. At the same time, many of the Fancies would prove valuable as decorative varieties.

In recommending the above Peas, I do not mean to say that there are not others equally good, and possibly some may be even better; but most of those named can be had (except where stated otherwise) in a fairly fixed state, and these may improve next season, so that anyone making a selection from them will not be far behind in the matter of varieties, and need only give good cultivation to bring them out on top.

I am well aware that there are very many pleasing Peas that I have passed over, but, unfortunately, they are not worth mention from an exhibition point of view, many of them having quite glaring faults when looked into closely, such as double standards, or with a short standard that does not come down low enough to form a background to the wings and keel. Also, a flower with the wings very open and spreading is far from being of good form, and, generally speaking, flowers of this stamp have very little substance, and with the slightest amount of wet weather, hang about all over the place. Another very glaring defect is a Pea with a cut or notched standard, and many new varieties have lately been exhibited which had this defect. A typical Pea should have a standard that stands fairly erect, one that when placed out flat almost covers a circle, with the wings just open enough for the keel to show through between them nicely. A Pea of this type seems to have more body than the previously-mentioned loose-winged flowers, as invariably the inside of the wings and keel are of quite a different and

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usually paler shade of colour than the standard and outside of the wings; and if this does not show, the flower naturally presents a better and more solid body of colour when in the bunch.

Before leaving the subject of varieties, I should like further to emphasise that it is unwise to grow too many varieties, more particularly if space is limited. We are all very apt to do this, and when the time comes to cut for a show, we find we should have been better off with fewer varieties and more plants of each, as fifteen or sixteen blooms are of no use when twenty or twenty-five are asked for. One can always compete more strongly when possessing plenty of good blooms to choose from; and there are nowadays very few classes where more than twelve bunches are asked for; so that if the amateur grower has, say, from sixteen to twenty varieties, and twenty-four to thirty plants of each, he ought to be able to cut twelve good bunches from them. But if it is decided to grow some varieties that are known to be unfixed, it is better to grow quite double the number of plants, and then you will be on the safe side. With such a variety as Audrey Crier, this is well worth the risk.



SWEET PEAS FOR GARDEN DECORATION.

Though there may be hundreds who aim at growing Sweet Peas solely for exhibition, there are at least thousands whose object in growing these beautiful plants is the embellishment of their gardens, and there are very few plants that will give such a bright and prolonged show as these during the summer months. They will grow and thrive in almost any soil or situation, providing it has been well worked and manured preparatory to planting or sowing, and the advice already given as to the preparation of the soil for exhibition purposes applies with equal force here. It may, of course, be impossible to trench the patches in the flower garden so thoroughly as a piece of ground set apart entirely for Peas; yet everything possible should be done to provide them with a good rooting medium, and then success is assured. Planting should be done early, wherever possible, and each plant put out separately, as advised previously. But where they are to be used for clumps on the lawn, or for furnishing large flower-beds, it may be necessary to establish the plants in larger pots, say large 24's or 16's, and then plant out bodily. It is astonishing the number of ways in which Sweet Peas may be utilised in the flower garden. I will try to describe a few, but each garden has its own particular aspects and positions that require brightening, and even after giving a few hints, much must be left to

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in this way, and though the Peas require to be well looked after in the early stages, and brought forward in good-sized pots, they will repay for the trouble taken. In all cases where they are used for beds, it is advisable for the ground-work plants to be also fairly tall growing (say two to three feet), so that as the season advances they keep somewhat proportionate in height, as tall plants of Peas about six feet in height would look somewhat incongruous with a ground-work only from nine inches to a foot. Also, the taller-growing plants will hide the bottom parts of the clumps somewhat, as towards the end of the season they will be sure to go off a bit yellow, especially if they are allowed to suffer at all from want of water. This last is a point which should receive every attention, for when planted in beds in the centre of the lawn, the Peas are open to all the wind and sun, and consequently will take a great deal more water than when planted in an enclosed garden. When it is not convenient to plant or plunge the Peas about on the lawn, they may be grown in tubs, for which many suitable places will be found around or near the house, and apart from their decorative effect, the flowers' perfume is also very pleasing. At the foot of a short flight of steps leading from the house to the lawn, or even beside the entrance itself, they will show up to advantage if colours are chosen that will contrast nicely with the surroundings. Should the positions for these tubs be where they get a little shade during some part of the day, it will be a decided advantage, as, with the limited rooting space, they will not be found to grow as freely after they get into bloom as when planted in the open ground. Here, again, liberal feeding is very essential, and watering may have to be done two or three times a day, according to the position and size of the tubs. The staking of these plants in tubs and clumps on the lawn should be very neatly

done, and if good, light, brushy Hazel stakes can be procured, they are quite the best for the purpose, as by the aid of two strong wire or Hazel hoops they may be tied in very neatly, without any fear of being shifted by the wind; and if, as the plants grow, a few of the shoots are brought to the outside, and given a tie here and there, they will quite hide the stakes.

Occasionally, suitable positions for planting Peas are found near the walls of the house, or on verandahs; but the plants would not prove a great success if the ground was very much taken up with the roots of permanent creepers, though at Brighton I once noticed a very beautiful scheme of decoration around a house, where Sweet Peas were used to great advantage, they being trained up the walls to the height of seven or eight feet, with a plant to each of the pillars or divisions of a large bay window. The woodwork was painted white, and the plants of King Edward VII., which were full of flower, made a very pleasing picture, with a row of white Marguerites in bloom beneath them. I have no doubt many more such pleasing schemes could be devised if only a little thought were given to the matter, and very many bare spaces might be made bright at quite a minimum of expense.

In the kitchen garden, where one does not always look for much in the way of decorative effect, a few clumps of Peas down each side of the central path, or here and there between pyramid fruit trees, add a touch of beautiful colour where it is particularly welcome.

Now, to ensure the plants doing well in the various positions described, the great thing is to see that they do not suffer from want of water; and, further, that no seed-pods are allowed to set, making a strict rule to go over the plants twice a week at least, taking off all the bloom that is

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just past its best. If this is done, there is no reason why they should not go on blooming well for three months.

The selection of varieties here is not of such importance as when the blooms are required for exhibition, but they should not be chosen in any haphazard fashion, good, free-flowering varieties of quite decided colours being very much the best for garden decoration. Dorothy Eckford, Mrs. Collier, King Edward VII., Colleen, A. J. Cook, Arthur Unwin, Lord Nelson, Coccinea, Countess Spencer, Dazzler, Queen Alexandra, Paradise Ivory, John Ingman, Gladys Burt, Yvonne, Marjorie Willis, Millie Maslin, Mrs. Bieberstedt, Lady Grisel Hamilton, and Prince Olaf afford a nice selection.



SWEET PEAS FOR MARKET AND INDOOR DECORATION.

So far, I have dealt principally with Sweet Peas for exhibition and garden decoration, touching here and there, as I went along, on special points of cultivation where they are primarily intended for cut flowers; and I can only add here that no treatment is too good for them, whether they are intended only for home decoration or for the market. Only recently, when chatting with two or three growers for market, I was informed that the flower salesmen declare they can easily sell the best class of flower right through the season at a really good price, whereas second-rate Peas hardly pay for the gathering. So that if growers for market make an early start by sowing in the autumn, and do their ground well, there should be money in it, but not otherwise, it being the same with Peas as with everything else—the early stuff makes the best prices.

While the private grower, as a rule, grows the varieties and colours that suit his own taste, and professional gardeners have to study their employers' likes and dislikes, the market grower has to grow just those colours that will sell, and he finds that buyers are pretty fastidious in the matter. White and pink are the two colours chiefly in demand, while crimson, lavender, rose and mauve go off in fair quantities; and I have no doubt that the cerise and

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salmon shades would also sell well if they could be put on the market in sufficiently good form.

Of course, the market man has to produce the best stuff he can at a minimum of cost, and it is hardly to be expected that he could go to all the trouble of trenching as advised by me for exhibition. But the nearer he can go to this, the better will be his results, and the principal points of cultivation right through should be adhered to as closely as possible.

The greatest mistake that is made amongst market men is that of sowing too thickly. In more than one instance I have noted the seedlings coming up in "60" pots as thick as mustard and cress, and very rarely are fewer than from ten to twelve seeds sown in the same sized pot, the reason for sowing so thickly being not to economise space (or seed), but to secure a big crop of flowers whilst the market is good, prices generally falling very quickly once there is a full supply. But, as I mentioned before, good prices are obtainable for tip-top stuff right through the season, and if a bunch of from twelve to eighteen good blooms will fetch twice the amount of a bunch of fifty inferior ones, it certainly ought to pay for the extra labour entailed, which is really the chief item, staking being perhaps the next, for if you are catering for a long season, good long stakes must be used.

For very early flowers for market, light, porous soil is very essential. Thin autumn sowings may be made out of doors, and wintered as advised in an earlier chapter; or, if the soil is heavy, sow in pots in the cold frame, and if these are kept quite hardy, and do not receive too severe a check at planting-out time, they will commence blooming within a day or two of those sown outdoors—indeed, I have known them to be the first to open, and, given a really good situa-



AUTUMN-SOWN PLANTS, THE FIRST WEEK IN JULY.

tion, they ought to be opening their blooms about the end of the third week in May. I invariably commence cutting within a day either way of the 25th, and this on a very cold, heavy soil.

The matter of varieties is most important, and I have heard it said that buyers do not care for the Spencer form of flower. This may be so, but if they were to be had in a good condition, I think they would take them as readily as the older grandiflora type. The sunless and, comparatively speaking, damp seasons of this and last year (1909) have been very much against the Spencer form of Pea, and especially in regard to packing them for market, the big, fleshy standards being apt to retain more water after rain than would the plain standard varieties, with the result that they crush much more readily, and become easily heated in the boxes. Again, one must not lose sight of the fact that flowers sent to market are not all sold upon the morning of their arrival. Given a suitable season, however, they will go up in popular favour, even for the market; and, besides, we have several very decorative shades in the Spencer form that we have not got in the grandiflora, such as Mrs. Henry Bell and Mrs. R. Hallum: these and other similar varieties under various names are quite indispensable from a decorative point of view.

A selection from the following ought to prove suitable, either for growing for the market or home decoration:—Whites, Nora Unwin and Dorothy Eckford; crimson, King Edward and Sunproof Crimson; pink, Countess Spencer and Gladys Unwin; cream-pink, Gladys Burt, Mrs. Henry Bell, Mrs. Hugh Dickson, Mrs. Routzahn Spencer, Mrs. R. Hallum, Lancashire Pink, and Miriam Beaver. I mention several of these last, as I consider them the most important section, and they are all good. My selection of three for bunching

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for market would be Gladys Burt, Mrs. Routzahn Spencer, and Lancashire Pink. Good lavenders are Frank Dolby and Mrs. Chas. Foster, or if a little more lilac is wanted, Asta Ohn; mauve, Mrs. Walter Wright and Helio Paradise; rose, John Ingman and Marie Corelli; scarlet, Queen Alexandra; orange-scarlet, Dazzler and Edna Unwin; cerise, Coccinea or Coccinea Waved, Cherry-Ripe, and Rose du Barrii. The striped varieties are not of much use for this purpose, but Aurora Spencer, Mrs. W. J. Unwin, Suffragette, and Prince Olaf are all varieties that grow freely and look well in the bunch, as also do one or two of the Bicolors, such as Arthur Unwin, Mrs. Andrew Ireland, and Colleen.



SWEET PEAS FOR EARLY FLOWERING IN POTS.

This is another phase of cultivation which, while not recommended to the amateur with very limited glass room, is well worth serious consideration in large establishments and by those who grow for market, the flowers coming in at a time when many of the early spring-flowering plants are just going over, and forming quite a welcome change for the house and table after such subjects as Narcissi, Tulips, etc. The cultivation is very simple, one or two points only needing careful watching, such as keeping the plants quite sturdy till they commence blooming, and afterwards seeing that they do not suffer either from the want of water or manure.

Sowings should be made either singly in 60's, or three seeds in a "48" pot, during late September or early in October, keeping the pots in the cold frame till about Christmas, when they should be brought indoors, and kept in a cool, airy house, where there is a maximum of light. At the end of January, or very early in February, the seedlings should be transferred to their flowering pots, using a moderately rich and holding compost, which should be made pretty firm. For the single plants, large 24's or 16-sized pots should be used, and 12-in. pots for the 48's with two or three plants in. At this stage it will be advisable to put a few Birch twigs around them, to keep them upright,

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and if these supports are about eighteen inches in height, they will serve until the plants are fit for the longer stakes.

After potting, they will not require much room for a time, and may be stood almost pot thick on the floor or stage of a large house; and as the days lengthen, the temperature may be raised a little, but not over fifty degrees at night, particularly if the weather is cold, though, of course, during the day it may be run up a little with sun heat.

Watering should be carefully done, keeping the pots, if anything, on the dry side. As growth increases, attend to staking, using three or four Bamboos to each pot, and tying them at the top to a wire hoop about twelve inches in diameter. This will keep them steady, and all that will be necessary afterwards is to tie a piece of matting around the stakes as the plants make growth, which, after the beginning of March, will be pretty rapid. After staking, the plants should be spread out to the space they are to occupy, and if in a house where it can be managed, such as a market-grower's house, the pots may be stood on two or three inches of short manure, to which the roots will soon find their way, and thus get a lot of nourishment at a time when they require it, though it is not advisable to let them get a hold of this till after they commence flowering. As the plants grow and make root, water must be given a little more liberally, but if the plants are wanted to be kept stocky, it must not be overdone.

The critical time with Peas in pots is just as they are throwing up the first lot of flowers, when an overdose of water, or a little too much heat in the house, will quickly cause the buds to drop. As, however, the sun at this time is gaining in power, the house may be liberally ventilated during the day, taking care to keep the night temperature about fifty to fifty-five degrees, or even a little warmer than

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this after all danger of bud dropping is over. Also at this time the plants may be fed pretty liberally with liquid manure, soot, or any artificial that is not too burning; and when the flower stems show signs of shortening, a couple of waterings with nitrate of soda or nitrate of potash, half an ounce to the gallon, will greatly help them, and keep them up to the standard for some little time; and where they have limited rooting space, it is really astonishing the amount of manure and water they will take, while it is fatal to their well-being to get them really dry.

After flowering indoors for about a month, they may be shifted outside, and, if plunged on a vacant piece of ground, will still continue to give fair flowers, which, if left uncut, will provide a nice bit of early seed. Any of the varieties recommended in the preceding chapter would be suitable for growing indoors, but grow a good batch of one variety, rather than a few of several, as even for a private garden one often wants sufficient flowers of one variety to do a dinner table, and for market a few bunches of one variety or colour are of no use whatever.



THE DECORATIVE VALUE OF SWEET PEAS.

Sweet Peas are recognised as amongst the most beautiful of subjects for house decoration. Whether used in the drawing-room or dining-room of the mansion, or in the humble cottage, they appear quite in keeping with their surroundings, and unless actually crowded into the vases in tight bunches, they rarely look amiss. But as they keep longer and are more effective when lightly arranged, an endeavour should always be made to make the most of their possibilities, and no matter what kind of vase or bowl is used, this may always be accomplished with a little thought. Large, wide-mouthed bowls should first be filled with some close-growing foliage, such as Box, Privet, Asparagus Sprengerii, or even Asparagus foliage from the kitchen garden—in fact, anything that will keep the stems in position. In many instances it may not be necessary for it to show above the top of the vase or bowl, but where Asparagus, Golden Privet, or things of like nature are used, it may add to the decorative effect, and thus serve two purposes. When used for dinner-table decoration, it probably will not be necessary to thus fill the vases, as, generally speaking, small upright vases are chosen, in which a little Sweet Pea foliage may be used just to keep the flowers in position. Very many people use Gypsophila in variety, and the small-flowered Polygonum, with the Peas, but for these I have no liking whatever, as

they seem to detract somewhat from the colour of the flowers, whereas there are many kinds of foliage which, on the other hand, will add to their effect.

Though they are very much in vogue at shows, it is not often that one sees the rustic table decorations used at home. It is true that they are light in build, and very easy of arrangement, yet at the same time they look rather artificial. In my opinion nothing looks so well for the dinner table as nice, clear glass vases, varying in shape and height according to the size of the table, and beyond these there are now some very nice cut-glass bowls, with a kind of foot to them, which may be used as centrepieces. Nicely arranged, these look quite as well as any rustic arrangement that can be bought. The only difficulty with this class of centrepiece is that really good long-stemmed flowers and foliage are indispensable. About the worst centrepieces one can use are the old-fashioned plain or coloured glass epergnes, with a base and three arms and a centre to them. These take a pretty expert decorator to make them look even passable, and usually the tints in the glass are so crude that they kill almost any colour that is put in them.

The ordinary amateur is hardly likely to have many silver ornaments for the table, but in larger establishments these are more frequently used than anything else, and after good glass they are the best, very many of the silver vases being made specially for such light flowers as Sweet Peas; whilst the old-fashioned wine cooler or decanter stands may be made very effective if lightly arranged, but these are only useful for one night, being so shallow that the flowers and foliage have to be put in wet sand, or some other suitable substance, to keep them erect.

Among so many beautiful varieties, it is really difficult to pick out individual names as the best for the purpose,

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and personal tastes will always vary very much: a combination of colours that would please one, another person or persons would take quite an exception to. To get the best decorative effect, one must always consider the colours of the paper or the upholstering in the room, and where the scheme of decoration is a quiet one, possibly in delicate blue, pink, or very light green, then nice quiet shades of Peas should be used, such as the whites, creams, pinks, light blues and mauves. But where the general scheme of decoration is heavier, and probably the furniture is of dark oak, then the brighter shades of Peas may be used to much effect; and here the crimsons, scarlets, bright rose and oranges will be seen to better advantage, and in this class of room, also, no mixing of colours should be attempted, relying more on good bright vases of self-coloured Peas.

In the dining-room even more thought will be necessary, for while beautiful tables may be made up (in daylight) with combinations of very pale colours, which may include the delicate shades of mauve and lavender, yet on lighting up at night these will often fail lamentably, sometimes owing to the flowers taking on quite a different tint of colour under artificial light, and at others owing to the colour of the lamp or candle shades. So, while almost any shade or colour may be used for a lunch table, very careful selections must be made for night, and many colours may then be used, and much more of them, that, if used on the lunch table, or at a show in competition, would be pronounced harsh or crude.

Nearly all the shades of pink or cream-pink lend themselves wonderfully well for table decoration, and may be used separately or in combination; and by far the best Pea I know for this is Gladys Burt. Many will ask what is the difference between Mrs. Henry Bell, Mrs. Hugh Dickson,



IRIS.

and several others in that class. Well, just this—it is a brighter Pea in the bunch, and has such a beautiful touch of yellow and salmon running into the pink which makes it stand out, while it does not lose it in water; and though I consider Mrs. Hugh Dickson one of the finest Peas ever sent out, in water it takes on just that shade or tint of blue that puts many people against it for the table.

Although I have previously spoken somewhat disrespectfully of Constance Oliver as an exhibition Pea, yet this, with Evelyn Hemus, and here and there a spray of Clara Curtis or Paradise Ivory, makes a very pretty and attractive table, especially if a little *Prunus Pissardi* foliage is used here and there with it, but this must be quite young, or it will be too heavy. Another very nice Pea is Zarina, and a table of this alone is quite attractive, as is also a mixture of this and Lady Grisel Hamilton or Lavender George Herbert; or, if something more striking is required, a few blooms of *Coccinea Spencer* will brighten the table up wonderfully, but in each instance Zarina must predominate. *Hordium jubatum*, a grass very much like Barley in appearance, and often obtainable by the roadside, goes wonderfully well with the above colour—in fact, with nearly all the pink shades, the reddish-bronze tassels hanging very gracefully above the Peas. For those who prefer really brighter tables, some of the darker—or perhaps I should say brighter—colours may be used alone. Either Sunproof Crimson, Queen Alexandra, Edna Unwin, *Coccinea*, or Mrs. W. J. Unwin, will prove very cheerful, and quite a change from the more delicate colours. When using these, however, rather fewer Peas may be arranged in the vases, and such foliage as *Golden Privet*, *Lonicera aurea reticulata*, *Cornus Spathii aurea*, *Acer negundo variegata*, and *Vitis hederaphylla*, may be used with them; or, if much green foliage is

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preferred, then the addition of a few yellow-coloured Peas will not hurt with the crimsons and scarlets, but keep these rather as a groundwork to the vases, rather than mixing them together at one height. This principle, indeed, might well be employed right through whenever using two or more colours in a vase, and often it will be found that two colours will go well together when the one is used as a groundwork, which, if actually mixed, would be very undesirable.

The same colour schemes may well be employed for filling the larger vases and bowls in other rooms, and, of course, there are any number of beautiful and striking combinations that may be tried; and though I have not mentioned the mauves, chiefly owing to their not lighting up well, yet the various shades are more than pleasing in daylight, and many of the pinks, cream-pinks, and yellows or creams, will mix well with them, as will also some of the orange and salmon shades, and two varieties I have not previously mentioned, Edrom Beauty and Yvonne, which are two of the best colours I know of for lighting up, they being particularly bright, without being harsh.

It does not fall to everyone's lot to have the decorating of large rooms for receptions, balls, and the like, but those to whom such work does come must recognise the adaptability of the Sweet Pea for this purpose. Very few flowers prove more effective, whether in bold masses of one colour, or in a combination of colours, and if suitable receptacles are to hand, either windows, fireplaces, columns, staircases, arches, and any other points where floral decorations are necessary, can be quickly converted into places of much loveliness and sweet scent. One could go on writing about the decorative qualities of the Sweet Pea for a very long time, but enough has been said to convince anyone that the Sweet Pea is as useful as it is beautiful; and I will only add that the

simpler the arrangement, the greater its effectiveness. Finally, those who have no great amount of room to grow foliage plants, either indoors or out, to add to the beauty of their Peas in the matter of arrangement, should, if possible, grow a variegated Honeysuckle or two up a pillar, and a plant or two of *Prunus Pissardii*. Also a row of the ordinary vegetable *Asparagus* might be sown every year and left until the second season, and with this and a small patch each of the following grasses: *Hordium jubatum*, *Agrostis nebulosa*, and *Eragrostis elegans*, they will have sufficient useful foliage and grass to carry them through the season, even if they do quite a lot of decorating.



THE ENEMIES OF THE SWEET PEA.

Although I have already touched somewhat upon the enemies of the Sweet Pea, it will perhaps be as well to summarise them here, and set forth, as far as my experience permits, the best antidotes or means of killing them.

MICE.

These are probably the Sweet Pea's worst enemies, as they will take the seed either out of the ground or out of the pots, unless precautions are taken against them, such as red-leading the seed before sowing, or, as I have seen advised, steeping in paraffin; but I do not vouch for the safety of this latter method, as I believe an extended soaking in paraffin would kill the germ of the Pea, which would not be less disappointing than the losses due to the mice. However, mice must be coped with in some way, for they also do a deal of damage, when the seedlings come through the ground, by eating off the young shoots; and where the seedlings are in frames, should they have to be kept covered for a day or two, the probabilities are they will attack them there. The best way to prevent this is to keep a few pieces of bread, covered with phosphorous paste, about the rows or frames, commencing when sowing the seed. If this is done, there will be very little trouble from mice. But if the grower is afraid that dogs or cats will pick up the poison, then he must resort to trapping, and, if the pests cannot

be caught with one class of trap, another must be tried, always remembering that mice must be dealt with early.

WIREWORM.

These on some classes of soil are very troublesome. If the grower knows that he has them to contend with, he should do as much hand picking as possible when trenching and preparing the ground, and use soot and wood ashes freely. If this does not kill them, it will at least drive them further down, and possibly away from the roots until they get too good a hold to be injured. Where wireworm are particularly bad, a dressing of Vaporite some time before planting will do good, or, if holes are bored in the ground, and these filled up, it is supposed to be equally effective. Another remedy is to dress the ground with mustard dust, which is, I believe, the sweepings from the mustard factory; or even mustard seed sown in the autumn, and the plants dug in in the spring, is also supposed to be effective.

LEATHER-JACKETS.

These are the grubs of the crane-fly, or daddy long-legs, and though personally I have not experienced any trouble from them with Sweet Peas, yet my acquaintance with them in connection with many other things leads me to advise growers that they are dangerous subjects. When a plant is found to go off yellow in the young state, a very careful examination of the ground may prove that the leather-jacket has been at work, but the grub is often difficult to find, owing to being of much the same colour as the soil. Unfortunately, beyond actually crushing it with one's foot, we know of no method of killing it, so that wherever it exists I can only advise the grower to prick out some strong-growing Lettuce plants among the Peas, to act as decoys.

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These will soon show signs of attack, when the pests may be searched for and caught.

SLUGS.

Much may be done to exterminate these when preparing the soil. Plentiful supplies of soot when trenching, and a good dressing of lime some little time after, over the surface of the ground, will go a great way towards killing them; also, after planting, repeated dustings of soot should be given. I advised this practice once, when reading a paper on the Sweet Pea, and one gardener got up and said that no soot or lime would kill his slugs, as they varied from four to six inches in length. Could I advise him further? I am afraid I was a little severe in answering, for I said that if I had slugs of that age or size, I should have to wait for them with a gun: there must have been a certain amount of neglect to have allowed them to attain such a size. Where slugs are really troublesome, pains must be taken to keep the soil very fine near the plants, and if little heaps of bran are put down here and there, these will attract them, and they may be captured if looked for with a lamp at night.

BIRDS.

Birds are frequently troublesome throughout the whole season. Whilst the plants are in the seedling state, the only way to protect them is to cover them with a fish net, or to well cotton them with black cotton. After they get tall enough to have small sticks put to them, the birds will usually leave them alone for a while; but later in the season, if the weather turns dry, they may renew their unwelcome attentions, either by chewing or biting out the points of the shoots, or doing the same with the flower-buds. Unfortunately, at this time, the plants are almost too high



THE SECOND WEEK IN SEPTEMBER—AND STILL BLOOMING.
(Seed sown on the 8th October, previous year.)

to think of netting, while syringing with strong soot-water, quassia or paraffin emulsion, would damage the flowers; so the only thing to do is to set up some form of scare, such as bright pieces of tin hung on thin Bamboos or stakes, which may be so arranged as to blow about in the wind, and now and again to clash against the tops of the stakes. The noise so produced, together with the reflections from the bright metal, will often keep the birds away.

GREEN-FLY AND THRIP.

It is not often that Sweet Peas are badly attacked by either of these two pests, which may usually be kept at bay by giving the plants a good hosing or syringing occasionally during the growing season. But where other treatment becomes necessary, I would advise that all the flowers showing colour should be cut off, and the tips have a thorough good spraying over with Abol, using an Abol or Knapsack sprayer for the purpose. Abol is a very safe insecticide to use, and fairly cheap; but, if preferred, XL All liquid insecticide or paraffin emulsion would do as well, but it should be remembered that the young growing points are very tender, and will not stand too strong a mixture. In all cases these washes should be applied fairly late in the evening, and if the plants have a good spraying with clean water the following morning, the fly should be got rid of without any sort of damage to the plants.

STREAK.

Streak, and what produces it, is a matter which is just now engaging the attention of nearly every Sweet Pea grower, as well as of a special committee of the National Sweet Pea Society. Unfortunately, up till now nothing very definite is known of it, except that it attacks the Peas

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very badly in various stages of their growth, but generally just as they have commenced blooming nicely. Reports are to hand of its appearance in all parts of the country, and in some instances all the plants have been quite killed by it. Personally, I cannot speak with any degree of confidence on the matter, but it is very certain that it does attack the plants at a time when they have a special drain on the roots. Adverse weather conditions also seem to encourage its appearance, the disease often showing itself after a few days of wet weather. Further, I am of the opinion that very heavy dressings of manure in the soil tend to render the plants liable to attack, though at the same time, even where no manure has been applied, the plants have been killed outright: so that it seems almost impossible to set up a proper theory. As, however, it is now being so thoroughly investigated, doubtless we shall soon learn its cause, and how best to deal with it. So far, I cannot definitely say that my plants have been attacked, certainly not those that were autumn-sown; but when two or three varieties of the spring-sown were attacked with what I believed to be the streak, I promptly removed all the flowers, and gave four or five sprayings on alternate evenings with a solution of sulphide of potassium, half an ounce to a gallon of water. When this touched the flowers, they were burnt, also here and there the foliage was marked, but not sufficiently to be serious, and after these dressings the plants seemed to grow away quite freely, and gave good, clean flowers again. I do not put this spraying forward as a remedy, but certainly it might be tried as a possible preventive.

Thielavia basicola, a disease which attacks the roots of garden Peas, is, I am told on good authority, a fungus which is very commonly associated with the brown stripe on Sweet Peas; and though there appears to be no real cure for this,

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it is suggested that a dressing of superphosphate and sulphate of potash might be useful, and if the two diseases are closely allied, it would be well worth trying the same dressing for Sweet Peas.

The foregoing are, I think, the principal enemies of the Sweet Pea, and while I hope that my readers may never be seriously troubled with any of them, I would say, in conclusion, to be forewarned is to be forearmed; never let these pests get too strong a hold, but take measures against them as soon as they are noticed, when they will be more quickly got rid of, with the least possible damage to the plants.



NOTES ON ILLUSTRATIONS.

These have been selected to give as far as possible an idea of some of the best and most interesting of the new varieties seen during the season of 1910. Most of these are decidedly new breaks in colour, and are so beautiful and of such good form that I shall be disappointed if they do not prove even better on further acquaintance. Although a good deal of trouble has been taken to get the colouring of the plates as nearly correct as possible, yet it is hardly likely that they will prove quite as pleasing as the actual flowers, the colouring in four of the varieties chosen being very subtle.

The variety Charles Foster, which is being sent out by Mr. Bolton, is without doubt one of the prettiest Peas yet seen, and if it can be generally grown in the same condition as Mr. Bolton showed it at the National show, it will become a general favourite. The colour is described by some as a pastel shade of pink. My own opinion is that it is really a delicate shade of lilac, the standard being margined with a touch of bronze.

Mrs. W. J. Unwin is a variety fairly well known, at least to those who have visited the Sweet Pea trials both in 1909 and 1910. It might be described as a flame-coloured flower, being a rich orange-scarlet flake on a white ground. It has immense size and substance, and should be grown by everyone who is fond of a good striped Pea. As the name

suggests, it is one of Mr. Unwin's, and is being distributed by him.

William Eagle is a variety raised by myself in 1909. Unfortunately, the stock sent for trial proved very unsatisfactory; but the No. 2 stock—which I did not feel quite so sure about—proved quite true, and if it remains so, will probably be distributed by Mr. Sydenham in 1911. The colouring is very delicate, and quite unique. The standard is a soft rosy-mauve, while the wings and keel are of a bright shade of blue. This makes a grand bunch, especially if placed in a strong light.

Thomas Stevenson, named after myself, received an Award of Merit from the Royal Horticultural Society under the name of Prince of Orange, which was subsequently changed, as Miss Hemus had also one named similarly. Thomas Stevenson is a dazzling orange-scarlet throughout, of really good substance and size. It stands the sun well, and the colouring is better when the flowers reach maturity than in the young state. It was raised by Mr. Holmes, and is being distributed by Mr. Sydenham.

Red Chief is another of Mr. Bolton's Peas, and is again a decided break in colour. The colour description (red-mauve) under which it was sent for trial proved perfectly correct, and its pale yellow keel makes a very pleasing contrast to the deep colouring of the standard and wings. The flower is of large size, and, as in the case of most of these dark varieties, of really good substance.

Iris is one of the salmon-shaded varieties, and is much paler in colour than Earl Spencer and Nancy Perkins. I think the delicacy of its colouring will make this very popular as a decorative variety. It was raised by Mr. Breadmore, by whom it will be distributed, but not at

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present, as I understand the seed crop has failed, owing to the bad weather.

The half-tone illustration of the variety Maud Holmes (practically synonymous with Sunproof Crimson) shows a typical spike of this very fine Pea, and serves well to depict the class of flower one should aim at getting, whether of this variety or any other. The other half-tone illustrations almost explain themselves. They show the difference of growth between spring and autumn-sown plants at the same date, and were taken in the gardens of Woburn Place.

I gratefully acknowledge my indebtedness to the growers who sent me the flowers from which these illustrations were obtained, and also to Mr. Holmes for the use of his block of Maud Holmes. In conclusion, I am very conscious of my shortcomings as a writer, but I feel certain that I may safely ask my readers to accept my assurance that at any rate I have endeavoured to describe and explain my methods of growing these beautiful flowers so that all may understand; and I am quite sure that if the instructions I have given are only partially carried out, they will at least prove a little help to the inexperienced.

THE END.

TO THE READER.

Should the reader at any time require advice concerning the culture of Sweet Peas, he is invited to fill up the appended form and address it to Mr. T. STEVENSON, c/o the Editor of GARDEN LIFE, Hatton House, Great Queen Street, London, W.C.

The particulars will be duly considered by Mr. T. STEVENSON, and explicitly replied to in the Correspondence Columns of GARDEN LIFE as soon after receipt as possible.

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Bentley's Sweet Pea Manure produces the best obtainable results in **quantity, size and substance of flower, brightness of colour, strength and length of flower-stem, and prolongation of flowering period.**

DIRECTIONS FOR USE.

In Autumn, prepare the soil by digging 'or the clumps or rows, about 3 feet deep and 2 feet across; dress the bottom with **Bentley's Sweet Pea Manure** (COARSE GRADE), at the rate of 1 to 1½ ozs. to the square foot; above this give a dressing of good farmyard manure, and fill up with good loam—left rough and dressed with **Bentley's Sweet Pea Manure** (COARSE GRADE) at the rate of 1 oz. per square foot.

During active growth use the **FINE GRADE** of **Bentley's Sweet Pea Manure**, by top dressing both sides of the rows (about 1½ feet wide), at the rate of 2 ozs. per yard, and in the same proportion for clumps and pots, taking care that the manure does not come into contact with the haulm or bine.

Apply the first dressing when the plants are about 1½ to 2 feet high; the second dressing just before the flower-huds form, and further applications of half strength may be continued fortnightly throughout the flowering season. Well water the ground before and after applying the manure.

PRICES:

7 lbs., 2/6; 14 lbs., 4/-; 56 lbs., 12/-; 1 cwt., £1; 5 cwts., £4 10s.

TESTIMONIALS.

Mr. THOS. STEVENSON Woburn Place, Addlestone.

“With reference to your **Sweet Pea Manure** I had from you this season, I must say I found it very stimulating and beneficial to the plants. In the very early stages of growth I never use artificial manures for the Peas; but, on using it after they had began to bloom, I found added considerable vigour to the plants, with a proportionate increase in the size of the blooms.”

Mr. A. E. USHER, Head Gardener to Sir RANDOLF BAKER, Bart.,
Ranston House, Blandford.

“I used your special **Sweet Pea Manure** on some of my rows without any other artificial manure; the results were good. From these rows I got some of my very best flowers for exhibition; it is a safe and very reliable fertiliser.”

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