

IOW TO PLANT TREES AND SHRUBS

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Evry year there are many buyers of trees shrubs who are very much disappointed ecause they do not get good results. In some ses the plants die, in others they refuse to ake any great amount of growth-they sim-

exist. As a result, the nurseryman supng the plants is berated for sending out stock, for the planter thinks he has given plants a fair show. But the truth is that buyer has neglected some of the little dewhich insure success.

n nearly all the larger nurseries the roots rees are given a thin coating of puddled which prevents the roots, to a great exfrom drying out. When packing, sphagmoss or other moisture-holding material t about the roots to further prevent dryout, so that when the buyer receives the they are in condition to start growing diately.

t is when the unpacking is done that the ble begins. Be prepared to cover the roots damp soil immediately the plants are en from the packingbox or the wrapping is oved. Only a few minutes' exposure to drying winds of late March or April will out the roots so that they will be very serily injured.

If you cannot set the trees or shrubs in the und where they are to grow permanently, cel" them in, i.e., dig a trench big enough hold the roots, throw some soil over them d water them to work the soil in among the ots, put on the balance of the soil and firm it treading with the feet. If the roots look Iry when the plants are taken from the packcase, immerse them for a few minutes in a ail or tub of water.

The ground where trees and shrubs are to planted ought to be thoroughly prepared bere setting the trees. I prefer to do this in the all; but if you have not done it, do it now, bee you order the plants, or as soon as the oil can be worked safely. Dig a hole on the site of each shrub at least two feet squarethree is better; for each tree, three feet, but our is better. Dig two and a half feet deep and as the soil is being thrown out throw the stones to one side. When the hole has been dug to the required depth, pick up the bottom, leaving it rough, so that a better union will be made with the soil that is put back. Throw the small stones which have been taken out. into the bottom of the hoil for drainage. Next mix with the soil taken out one-quarter of its lk of well-decayed horse or cow manure. It

winter out-of-doors. It is necessary that the peat or muck be weathered in order to sweeten it. Muck when taken from a bog is usually sour and even ordinary upland plants will not grow in it, the plants belonging to the erica family would be killed immediately.

To this soil add about one-tenth its bulk of well-rotted manure. It must be so well decayed that it looks like earth. Fresh manure of any kind added to the soil would be like giving poison to an animal.

When the ground is settled, if you are planting the great laurel (Rhododendron maximum), or the mountain laurel (Kalmia latifolia), which have been collected from the wild in this country, set the plants two or fourinches deeper in the ground than they were before; but if you have plants which were imported from abroad, they must be set the same depth that they were before. The imported plants can be easily distinguished from the native plants by the ball of roots. Each plant have a very hard, compact ball of black will soil. It is very hard for one not acquainted with the soil to tell whether or no this soil about these roots is sufficiently moist, so, as a safeguard, I would advise soaking it in water for four or five minutes before planting. When, planting, pour lots of water about the plants in order that the new soil will make a good union with the soil about the roots.

When the tree or shrub is planted, prune it. A safe rule to follow with either, except in the case of evergreens, members of the azalea family and such trees as magnolias, is to remove one-half of the wood. This may seem a whole lot, especially in the case of shrubs, but it is really very necessary for the best health of the family:

Plants when transplanted have no connection with the soil in the new location for some time. The leaves are all the time pumping water out of the soil up through the plant and giving it off. The moisture is taken into the plant through the white hair-like root tips, and until new ones have been made the plant is not capable of taking in a sufficient amount of water to meet the demand of the leaves. By cutting the plant back as advised, one-half or more of the leaf-surface is removed, which materially lessens the amount of water transpired by the leaves; and the energy of the plant is thus conserved.

Many people prune their fruit trees back to a whip-remove all the branches, leaving nothing but a bare stock. This is the way to treat hes and other stone fruits, but with apples and pears I prefer to leave branches six or eight inches long. When pruning like this, always make the cut just above a bud which points out, so that the new branch which starts wlil grow out rather than into the centre of the crown of the tree. When planting such shade trees as the Norway maple, silver maple and the Carolina poplar, prune the tops back to a mere whip and the top cut off about where the first branches are wanted-about eight feet from the ground. When planting shrubs the rule I have always given of pruning back had better be followed by the inexperienced amateur, but to one who has had considerable experience circumstances will dictate just what is needed. A shrub with a good root-system need not be pruned back quite so severely as that if it is a good, shapely plant. It may be necessary to prune more than that in order to get a symmetrical plant. A shrub with few roots must be pruned back more than half, in order that the energy of the plant may be conserved as much as possible. Whatever is necessary, do not let the desire to get bloom the first year from them influence your better judgment, because the first year's bloom does not amount to much Such shrubs as the hardy hydrangea and the rose will stand a very severe pruning. These produce flowers on the current season's growth, and one of the objects of the severe. pruning is to get many new shoots. In beah, of these shrubs cut out the weak wood and head back the strong shoots to two or three eyes. They will need a severe pruning like this each successive year if the largest flowers are to be obtained. The brier rose must not be cut back much after the first year, as they flower on the wood of the previous year's growth.

THE VICTORIA COLONIST

the shoot selected to it. 'Use raffia or other soft material which will not cut.

The only thing that can be done to secure the successful transplanting of conifers is careful planting-see that the soil is in contact with all the roots and that there are no spaces in the soil to drain away the water, allowing the roots to dry out rapidly. I have found that it pays to syringe the foliage of conifers frequently during the first week or two after planting to maintain as humid an atmosphere about them as possible. It lessens the evaporation from the leaves. I have seen one thickness of burlap wrapped about the tree and kept moist for three or four days. This materially lessened the evaporation from the leaves. After removing the burlap, the tree was shaded three or four more days during the heated part of the day .- Suburban Life.

HARMONY IN THE HARDY BORDER

I have been working to plan a hardy border which shall present from spring to autumn a succession of color combinations, each one of which shall dominate the border while in bloom and be its whole centre of attraction. Many are the descriptions of hardy borders that I have read, but the one of my dreams is still waiting to be realized. That there should be something in bloom from May to October and that no violent discord of color should be permitted is as much as the small gardener strives to attain, while borders devoted to a single color have been successfully planned in larger gardens.

The idea was suggested to me several years ago by one of those happy accidents that are the joy of gardening. One summer I raised a thriving lot of young foxgloves and pink cup-and-saucer Canterbury bells, and, as good luck would have it-for I had never seen either one of them before, and was growing them chiefly for the sake of their names-I planted the fox-gloves in the back of the hardy border and made an irregular group of the Canterbury bells in front of them. The effect when they bloomed the next June was one of the loveliest I have ever seen. Behind the low-lying mass of delicate pink bells rose the tall spires of the fox-gloves, some white and some a dull red that was only a deeper

tone of the Canterbury bell pink. For two weeks that corner of the garden reigned supreme and we realized as we never had before how much more beautiful a flower can be when it is planted with another that brings out its beauty of color and outline. From this the idea grew of a border which should contain only such wonderful combinations, succeeding each other with as little overlapping as possible.

By dint of observation and experiment I have finally gathered together nine such combinations, giving bloom from the first of May until the middle of October, except, unfortunately, for the whole of September. That month in my garden calendar is bare of flowers of good perennials, or at least of any good enough for this hardy border.

season. The Madonna lilies go in front of the larkspurs, as they seldom grow taller than four feet. The larkspurs have so long a season to

bloo mthat they also play a part in the next combination with the little russet and gold coreopsis. This grows about four feet high and is best treated as a biennial. The seed is sown not earlier than the first of July, as plants started early enough to bloom the first year will never make a good showing the

second. Larkspurs, on the other hand, are started as early as possible-April out of doors or March in a coldframe. Well-grown seedings will send up several columns of bloom five to seven feet high the following year, and I have had established plants with as many as twenty-one stalks. Plant coreopsis to the front of the larkspur, whose solid blue ranks are wonderfully relieved by its thousands of sparkling blossoms.

August gives us two combinations. For the first half, cardinal flowers and tiger lilies. Every one who has grown tiger lilies knows the difficulty of finding anything to go with their peculiar yellowish pink color, yet when left to themselves they seem incomplete. You wonder why they are not more beautiful. This problem was solved for us by a stray seedling of cardinal flower that sowed itself in a group of the lilies. The clear red, free from all suggestion of yellow, emphasized the pink tones of the tiger lilies and made them more beautiful and satisfying than before. Tiger lilies and cardinal flowers grow about the same height, varying from three to five feet according to the moisture in the soil. It is best to keep the tiger lilies to the front, as their outline is an important part of their beauty. Though the cardinal flower is a biennial it self-sows freely, and the seedlings are easy to transplant in the early spring. In my garden tiger lilies have suffered more than any other from the "lily disease," but it is so easy to raise new bulbs that I have never troubled to treat the old ones. If the little black bulbs that grow in the axils of the leaves are gathered and sown in rows in the nursery in the autumn some of them will bloom the second summer, and nearly all of them the third.

For the second half of August there are Veronica longifolia and white phlox. A comparatively low-growing phlox, like Peanne d'Arc, should be used with the veronica, that the grace of its curving blue sprays may be emphasized against the white background. Veronica is about thirty inches high, to the tips of its flower spikes; the phlox should not be higher than three feet. Both are best increased by division of the root.

September, as I have already confessed, is a blank, but in October the border is glorious again with purple and gold. One autumn day I brought home from a walk three plants of the common purple aster. They were a scant three feet tall, but the blossoms seemed larger than usual. I soaked the roots free from the tangle of grass and weeds they were growing in and divided them into eight small plants. They received no care the following summer but ordinary weeding, and they sent up ten stalks between six and seven feet high and clothed to within two feet of the ground with side branches varying in length from two feet at the bottom to six inches near the top. Each plant was a pyramid of purple, and a more perfect background cannot be imagined for the great golden and lemon and orange globes of African marigolds. To carry out the idea of a hardy border one might use yellow chrysanthemums instead of marigolds, but unfortunately, the truly hardy chrysanthemums are scarcely in bloom before November and the asters are then gone. Marigolds, of course, are easily frosted, but the blossoms make a brave show long after the leaves are drooping and black. Such a border as I have been describing has, of course, one obvious disadvantage: it is practicable only for a large garden, as it must refuse admittance to so many of the host of May and June perennials that one cannot do without. Who, for instance, would have a garden without the great flame-colored Oriental poppy?-but not one of its contemporaries can stand beside it.. The choice is further limited by the overlapping seasons of bloom of the successive combinations, making it necessary to choose plants that harmonize with those blooming just before and after them. Much, however, can be accomplished by taking care not to place successive combinations in juxtaposition.

valuable in many ways, as enabling the soil to retain a larger amount of water, prevent-

ng the evil effects of drought, binding the soil particles so that the denuding effects of heavy windstorms are, in part, prevented, changing the physical texture of the soil so that it is more suitable for crop production as well as promotig a series of chemical changes which result in the liberation of plant food.

BREEDING SQUABS FOR THE TABLE

The "fancy" for pigeons, as it is called, stands on a different footing in many respects to the propensity for breeding them for commercial purposes. Doubtless such things as bigeon pies are not now utterly unknown, and f you should ever feast on them, they are by no means to be despised, you may wish to become a squab breeder, if for no other purpose than to supply your own table with this luxury. It is now a frequent dish upon the tables of the wealthy and connoisseurs of good eating. To the sick and convalescent at certain seasons of the year they offer an appetizing and digestible food, highly recommended by medical practitioners. A nice young fat squab is a dainty dish for the sick and afflicted, and the number that are killed and used for this purpose extends into the tens of thousands. The frequent use of them in place of wild birds in leading first class hotels and highpriced restaurants is simply immense. The number bred and consumed for dainty food by lovers of high living is beyond estimate in the aggregate. In fact the business of market squab breeding is a growing and profitable one to engage in as a specialty, or in connection with other branches of stock breeding.

This is a business, or branch of stock breeding that can be conducted profitably by nearly all fowl keepers or farmers. The birds used for this purpose are the large and vigorous breed known as the "Homing Pigeon." They can be bred in confinement or at liberty, and raise from twelve to sixteen young ones in a year, or a pair every six weeks from January 15 to November, or moulting time. They lay but two eggs, and sit about eighteen days in hatching, and then they feed their young while they are preparing for another nesting, which they usually have before the squabs can feed themselves. These Homing pigeons are used for breeders in preference to all others on account of their large size, prolific and fertile breeding. They are splendid feeders, and the squabs are always in a nice fat condition for selling as broilers, or they can be raised to full growth and sold at a profitable price-or one that will pay a handsome profit to raise them. To commerce the business of breeding them it is only necessary to purchase a few pairs to start with, as in and in breeding does not readily affect them; but at the same time it must not be carried too far; this can be prevented by purchasing a few extra male Homing pigeons occasionally to cross with your birds, which will keep up the vigor and vitality of your stock at a small cost. The amount of

will be necessary to turn it two or three times, to insure thorough mixing. Now throw the soil back into the hole, crowning it a little to llow for settling. If the work is done immeliately before planting the tree, firm the soil o that it will not settle much after the tree has een planted.

If you have not the time to do this, or do ot care to go to the expense of having it done, ien, when planting, dig a good-sized hole, a ot or so larger than the diameter of the ball the plant, so that when you put the roots in hole they can be spread out. I once saw me trees and shrubs planted, the holes for hich were as square as the breadth of the de, the roots were crowded into these small es, and as a result many died the balhad a stunted look for several years. A' nt put in in this way really never fully reers from the damage done.

With the exception of rhododendrons, leas and their near relatives, set the plants a little deeper than they were before. ad the roots out carefully, throw in a litand lift the tree or shrub up and down little-an inch or so-to work the soil the roots, throw in some more soil and stream of water on the soil, put in h so that the earth is thin mud. This will the soil into the crevices not already

When the water has drained away, will be in an hour or two, throw in the e of the soil, treading it firmly with the Fill the hole just a little fuller than the unding soil to allow for settling. By ughly puddling the soil, about the roots, an be sure that at least 90 per cent of the s will live and thrive; they will not simexist for a few years and die. e sure you set the tree straight. Have

person hold it while another sights it, first one side, then from a point at right anto the first sight. If the trunk is crooked he centre of the crown directly over the where the trunk emerges from the

ciore setting the plant be sure that all of oots are in good condition. If any are ged in any way, remove the damaged on cutting it off just above the injury. sharp knife.

you are planning to plant rhododendrons, as, andromedas, mountain laurel, ericas, my other plants belonging to the erica the soil must be thoroughly prepared planting. If you are located in a limecountry, the plants will do nothing unthe site in which they are to be planted is vated.

Dig the soil out to a depth of two and onefeet and thoroughly drain the place. In ottom throw three or four inches of stones al clinkers to help drain the ground better, ill the hole with soil taken from a bog

Do not attempt to prune an evergreen back at planting-time or at any other time unless the plants look sickly or have been injured while en route from the nursery.

If the plants are received from the nursery after they have begun to grow, prune off all the new growth, otherwise the plant is very likely to die. Be very careful about this pruning; do it evenly, cutting as much from one side of the tree as from the other, for a lopsided conifer is a very unsightly object on one's grounds.

If the plant is spindly, that is, the branches are poorly furnished, cut the leader out. This may sound like heresy, but it is practiced by the best grower in this country today. It is very easy to form a new leader, but before the new leader has formed all the lower branches will have closed up all the open spaves. To make a new leader, train up the strongest shoot starting from the axils of the branches of the top whorl of leaves. To do this, tie a stick to the trunk of the tree, letting it stick a has been weathered for at least one foot or a foot and a half above the tree and tie

The season opens with white tulips and hardy yellow alysum. L'Immaculee is a good tulip for this purpose, and is prettiest scattered among the alyssum, neither in front nor behind it. These two are at the height of their bloom by the first of May and are succeeded. by poet's narcissus with blue spring-flowering forget-me-nots in front. The touch of orange in the cups of the narcissus gives warmth to the blue and white and makes a harmonizing point of contact for the bits of alyssum still blooming. My idea is to make a border of these four, the whole length of the bed, forget-me-nots on the edge with narcissus behind them, and back of these two a band of alyssum and tulips. To relieve the stiffness of the long straight lines, the alyssum should jut back irregularly into the border.

Third in order, to usher in the month of June are lemon lilies and German iris. But only certain varieties of the iris may be used. Close to the lemon lilies should come the fawn-and -violet variety and, last, the purple and violet. A pure purple is needed on the end to carry through the color scheme, but the only purple variety I know blooms too early. The three I have described are common unnamed sorts, to be found in every nursery. German iris grows from two to three feet high, and the lemon lilies, which are a trifle taller, should go diagonally behind it. Both are quite over blooming by the fifteenth of June. which the glorious display of fox-gloves and Canterbury bells claims the whole border.

Don't wait until autumn to sow seed for next year's blooming-that's my experience. Start the seed not later than the middle of May to get strong plants by autumn with plenty of crowns from which to send up flower stalks in the spring. Well grown fox-gloxes should have flower spikes four to six feet in height; Canterbury bells are about two feet high, and it is a good plan to set them well back from the edge of the border, so that the branches of the front row may lean to the ground and carry the color all the way down. They are, unfortunately, biennial and so much be raised every year. Fox-gloves are perennial, but short lived, an dit is well to keep a supply of young plants in the nursery bed to replace any the winter may kill in the border.

The first of July gives another blue and white combination. By that time the tall English larkspurs have sent up their columns of azure, and it would be hard to find a more perfect background for the exquisite outlines of the pure white Madonna lily. But with all its loveliness the combination is a little cold, and a group of delicate pink hollyhocks near the larkspur adds the needed touch of warmth. As hollyhocks grow from six to nine feet, they must go at the back of the border on a line with the larkspurs. To get them blooming with Madonna lilies they must be established plants; seedlings raised the preceding summer do not come into bloom until later in the

SUPPLY HUMUS IN SOIL

The more we study the soil the more we realize the importance of having it well supplied with humus. Prof. Harry Snyder, of the Minnesota Experimental Station, in a recent address, has this to say about it:

In soils which have been under long cultivation, as in the continuous production of wheat, corn or other crops where the land is continually under the plow, there is a deficiency of vegetable matter, because there has been no return in crop residues, while all of the time there has been a constant stock of vegetable matter. When a pasture or meadow is plowed and a grain crop is raised it will be found to produce larger yields than before being in meadow or pasture. This is simply because the soil has had a chance to recuperate, and the decay of the crop residue of meadow and pasture has acted upon the soil, liberating new stores of plant food, and causing the soil to have renewed crop producing power.

In nearly all prairie soils there is a large amount of plant food which is not in the most active condition, but which can be made suittion brought about from the decay of the vegetable matter in the soil. Meadow and pasture are of particular important in maintaining lertility because they supply veg-etable matter and humus to the soil. This is

care and cost of keeping is small. They require cleanliness about their coop, etc., and if bred in confinement a good supply of sand sprinkled on the floor, plenty of fresh drinking water and a shallow tub for bathing in hot weather. Their feed consists ot small, whole corn, wheat, rye ,buckwheat, barley, peas and oats; a little hemp, canary and millet seed are also good for an occasional feed, and some soaked stale bread is good while they are breeding their young, or as a change of food for the breeding stock.

To mate them for breeding it is the best never to allow them to select mates, but pairing them with the selection of a large size male and a medium size hen will result in good vigorous young. To mate them is a simple matter, and it is necessary to divide a medium size box with wire netting and place cock and hen in each separate compartment for a few days longer, when they will usually be mated, and have a strong attachment for each other. -Ex.

LAND AND LIME

How can a farmer know whether his land requires to be limed? He can make a rough test in the following way: Put a sample of the soil of a field on a plate, make it into a powder, and then pour a little hydrochloric acid (obtainable from any chemist) upon it. If the soil effervesces freely, that is an indication that the soil is not poor in lime; if, on the other hand, there is a little or no effervescence, it is a sign that there is a deficiency of lime.

The leadwort (Plumbago Capensis) is the best light flowered bedding plant. Carry over winter by taking cuttings before frost. These, grown indoors, will make good plants in 4-inch pots for next year. Spring struck cuttings will not flower nearly so well as those struck in fall.

Bubb Doddington was very lethargic. Falling asleep one day after dinner with Sir Richard Temple and Lord Cobham, the latter reproached Doddington with his drowsiness. Doddington denied having been asleep, and to prove he had not offered to repeat all Lord Cobham had been saying. Cobham challenged him to do so. Doddington repeated a story, and Lord Cobham owned he had been te'ling "Well," said Doddington, "and yet I did it. not hear a word of it, but I went to sleep because I knew that about this time of the day you would tell that story.'

None are so fond of secrets as those who do not mean to keep them; such persons covet seable for the food of crops by the chemical ac- crets as a spendthrift covets money, for the purpose of circulation .-- C. C. Colton.

> Horne Tooke, being asked by George III. whether he played at cards, replied: "I can-not, your Majesty, tell a king from a knave."