

pire

March was irresistible. Frey's narrative we hear long after colonial days and the English-speaking touched each other, except in the southernmost edge. The struggle with it, if in summary, with a portion to give us all that without picturesque beginnings of the English, a complicated narrative incidents—the new country, Indian quarrels, governors, comings, and bickerings now settlements, now with which, within the limits of an only be sketched in or less arbitrary selection most essential to the disposed to quarrel with rather over-positive charges actors in the story, as a man of wonderful power, a courtier of the conventional, and especially of Andros, "a rator," whose "rule was moderate." We may have at the author is not in conditions of America are passages, too, where to become careless, and have made up his mind of a family famous in their name ultimately as street. But these are not scientific piece of work, purpose well as a step-complete study of the

DEAFNESS

quoted by the Army and that 50 per cent. of the are more or less deaf or shocks to which their the firing of the big guns. er, this disastrous effect greatest in the case of ance, it has been found of the Dreadnought's or less from the "ring" re-pounders. This is action resulting from the formers is enclosed, and used for the three-pound fact that the men operating are about nine times muzzle as those of the To avoid the worst charges on the ears it is piece of rubber be kept that the mouth will be re plugs be used in the

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THE HOME GARDEN

GARDEN CALENDAR FOR APRIL

Prepare, by raking over, the surface for borders for sowing flowering annuals.
Plant—Hardy border plants, Alpines, climbers, shrubs (if not done), deciduous trees (if not done), fruit trees (if not done), and especially Delphiniums (if not done), Gaillardias, Gladioli, paeonies (if not yet done), rock plants, Pyrethrums, Hollyhocks, Pinks, Michaelmas Daisies, Pentstemons, Asparagus, Potatoes, Seakale.
Sow—Hardy annuals, Peas for second early and main crop, Beet, Dwarf Beans, Broad Beans, Scarlet Runner Beans, Vegetable Marrow in heat, Celery, Cabbage, Savoy Cabbage, Cauliflower, Lettuce, (Cos and Cabbage), Onion, Melon in heat, Tomato in heat, Mustard and Cress, Parsley, Spinach, Cucumber in heat, Early White Turnip, Late Broccoli, Brussels Sprouts, Kale, Parsnip, Radish, Early Carrot, Intermediate Carrot, Aster, Stock, Balsam, Zinnia, Pansy, Little Cineraria, Carnation, Primula, Grass seed, hardy annuals, half-hardy annuals, Godetia, Mignonette, Sweet Pea, Petunia, Cockscomb in heat, Wall-flower, Celosia in heat, herbs, Asparagus, Artichoke, Rhubarb, Salsify, Scorzoneria, Seakale.

TOMATOES AND HOW TO GROW THEM

THE tomato is always spoken of as a fruit, for, like the apple, it is the fleshy portion which surrounds the seed that is eaten; but, unlike the apple, the seed also is used. This vegetable—for it will always be a vegetable to me—is a native of a warm climate, that of South America,

and in old days it was considered a curious rarity in North America. Its name was then the "love apple," for it was so often used in courtship as to be highly prized by the damsel who received it from her preferred lover; and it was also much in demand as a mantel ornament. Great was the dismay among our grandmothers, when the younger generation began eating the fruit, for it was considered distinctly poisonous. The original tomato was very small, not much larger than a cherry, and it has been used in our country as an edible only during the last fifty years.

Coming from the tropics, it needs a warm spot, and as our outdoor season is not quite long enough, the seed must be started indoors, or in a cold-frame. If planted in the open, the frost would take the vines before fruiting. First of all, select your variety or varieties, make up your mind how many plants you will have and sow seed accordingly, for there is no use raising more vines than necessary.

We always have two kinds in our garden, large red and yellow egg. The large red is usually a different named variety each year, for we like to make new friends in this family. The seeds should be sown the last of March, and the seed box placed in a conveniently warm, out-of-the-way window. Unless the Texan is at home to do it for me, I am very apt to forget to close the cold frame at night. If that is not done I might just as well have saved myself the labor of sowing the seed in it, for I will have no result, except fond hopes blasted. In the house the plants cannot become frostbitten; and being under my eye, they are pretty sure to receive good care.

The seed box need not be large, but if a fair-sized one is procured, it will serve to start tomatoes and celery at the same time. Under such circumstances, leave a good space between the seeds, so that one variety may not disturb the other when being moved from the neighborhood. To give you an idea how much seed to plant, one ounce will produce more than 2,000 tomato plants. I sowed three rows of three different varieties last spring, and each row was less than two feet long. The germination was extremely poor, but nevertheless I obtained more than fifty plants, considerably more than were set in the garden. Thirty-five plants produced enough fruit for table use all season, enough to preserve a dozen jars for us, twenty quarts to can, and all I needed for green pickle, as well as bushels for our friends and neighbors.

The seed box should first be provided with holes for drainage, next a layer of gravel or charcoal—preferably the latter, as it keeps the earth sweet—then filled to within one inch of the top with a mixture of well-rotted manure, leaf mould and sand. Shake the box to settle the soil; sprinkle it lightly but thoroughly, if dry; allow it to dry off slightly and then mark very shallow rows three inches apart. Sow the seed in the drills—not too thickly—barely cover it with fine soil, and firm either with the hand or a board. Sprinkle the surface again either with a bulb sprayer, or by dipping a whisk-broom in water and shaking it over the box. Keep the surface moist, but not wet.

When the seedlings come up, turn the box occasionally, so that they may not be drawn in one direction toward the source of light; and if the plants are too thick, thin them out. When the second leaves appear, they may be transplanted, or, if you have sufficient plants to allow for losing some, thin them out to three inches; otherwise, they must be lifted and set out separately, either in another box, or in pots, boxes, cans or any receptacle selected. This latter method will not check the growth, when they are set out in the garden, as much as

planting in a second seed box, where the roots are torn and broken each time they are lifted. Our experience shows also a difference of ten days or two weeks in the fruiting time.

Be sure not to let the plants grow too tall and spindling; give them plenty of air and not too much manure. They should be set into the garden when the forest trees are coming into leaf, which, in this region, is about the middle of May. If a cold snap should come after they are permanently placed, protect them with inverted pots, newspapers, sacking or any covering that comes to hand.

Have the seedlings' home ready for them before they are removed. Decide which is the best place for them, if it has not already been allotted in the garden plan. Give them a warm spot, if you want early tomatoes. Perhaps you had some extra early peas on a fence or trellis; could not the tomatoes go there? Is there a tall fence that can be used as a division line, or wind-break? If so, try that, provided it be not already appropriated. Plant the vines against it, fastening the stems with tacks and a piece of tape, just as you would rose bushes in the same situation.

After the location has been selected, see that the soil has been well prepared, with thoroughly rotted stable fertilizer. If a crop has just been taken out, spread the manure on the soil and dig it in well. If the spot has been previously dressed, fork it over carefully before setting out the plantlets.

The vines should be two and one-half or three feet apart. Dig the holes, put in some bone-meal and wood ashes and if the soil is dry, fill up with water. Now is the time to bring along the seedlings. Slide the bottomless tin can, paper pot or what not, off the board and lift the plant out of it; or take them up from the seed box; in that case disturbing the roots as little as possible, and set each into a hole. The water has sunk into the earth by this time, so that the hole is a little deeper than it was. Draw the earth around the roots, press firmly, sprinkle one tablespoonful of nitrate of soda, or a trowelful of chicken manure, around the plant, not allowing it to come nearer than two inches from the stem; sprinkle a little earth over this and water again. Then, unless it be cloudy or late in the day, protect from the sun and heat.

No doubt you wonder why the nitrate is not placed at the roots, with the bone-meal and wood ashes. For two reasons: firstly, because it would injure the roots; secondly, because the watering dissolves it quickly and carries the food in an available form down to the roots.

If the plants grow too tall and spindling, cut off the tops. I trust, however, the seedlings will be strong and sturdy, as all children should be, for a good start means much.

There are several ways of training the vines, the generally accepted one being to tie the main stem to a stout stake which has been driven into the soil near the plant. All side shoots are then cut off, and the main shoot is not allowed to grow any taller than the stake. Some allow three branches, one main stem and two side branches. Another way is to hold the vine, by means of soft twine or raffia, to a wire fence, pushing the ends of the stems through the wire. All unnecessary foliage is cut off, which is done either with the same care used in pruning a rose bush or by cutting the stems off with a sickle at the top of the fence. The former method gives the larger fruit, while the latter produces the greater quantity. I have spoken in "Vine Uplifters" of various other devices for taking care of this plant.

Tomato-rot and the giant green caterpillar are its most formidable enemies. Spraying with Bordeaux is the one thing to do for rot, and that is a doubtful remedy. It is necessary to burn all tomatoes affected with it, or the germs will fall to the earth and remain there over winter, ready for further evil work the following season. Green caterpillars are not very troublesome, and Bordeaux is their "cure." They are generally immense in size and few in number, so that a tin can full of kerosene and a small stick will quickly put them out of business.

The ground cherry, or strawberry tomato, is an entirely different plant. The bush is low-growing, rather spreading, and it has velvety foliage. The fruit, or seed pod, is enveloped in a husk, which is really the calyx of the flower,

grown as the seed develops. The edible portion is about as large as a cherry, rather flattened at the stem end, and when ripe is a dark, brownish red.

We found the plant in our old garden, growing everywhere, and, as we are not fond of it, we have calmly treated it as a weed, for plants from self-sown seed reproduce very rapidly. If you wish to try some in your garden, sow the seed in May, in hills three feet apart, thinning, when of sufficient size, to one plant to a hill. The berries—and they seem more like a berry than a vegetable—are ripe in August. They may be eaten raw by first removing the husk, or preserved like strawberries. Many of our neighbors are very fond of them and cultivate them carefully. How To Make a Vegetable Garden.

HOW I RAISE TOMATO PLANTS

An abundance of good tomato plants can be grown at home with but little labor if one has a hotbed. I have found that it is not necessary



Victoria-Grown Tomatoes

to have it made from matched lumber or to have a carpenter to do the work, and I can even get along without buying hotbed sash.

As soon in the spring as the weather is favorable, I take a box two feet deep, or deeper. If I cannot find one that is large enough, two are put together. One side of each is knocked off and the two fastened together by means of cleats.

This box is set on the south side of the house, where it will get lots of sunshine, and be sheltered from the cold west winds. The back is raised about six inches higher than the front.

A layer of manure one foot thick is put into the bottom of the box and it is packed down as firm as possible. The manure is then covered with a six-inch layer of the richest dirt that I can find. Window-sashes are put over the box. I did not have enough sashes to cover my hotbed, so made a frame the size of the box and covered it with unbleached muslin. This muslin was tightly drawn and tacked fast all around the outside with small tacks. It was then painted with the following mixture:

To one quart of boiled linseed oil three eggs were added. The oil is brought to a boil on the stove, then the three eggs—which have been well beaten in the meantime—are added. Stir thoroughly. As soon as the mixture cooled it was spread over the muslin with a paintbrush. When the first coat was thoroughly dry, a second one was put on.

Muslin-covered frames give as good results as glass, for I have had hotbeds side by side, one covered with muslin, the other covered with glass, and there was no difference in the size or quality of the plants grown.

The next day after making the hotbed, the seed is sown and the soil pressed down firmly with a piece of board or a shingle and watered with warm water until the soil is soaking wet. The frame is now covered with ashes, and if the nights are very cold, a piece of carpet or an old blanket is thrown over it. One night was so cold that I set a small lamp in the hotbed to keep it from freezing.

If the box is set down into the ground so

that the top of the soil in the box is even with the top of the ground outside, it might be better. Especially if the weather is cold, as it would be warmer. But the box on top of the ground, set in a warm sunny corner and sheltered from the north and west winds, produced splendid plants, just as good as any I ever grew in a regular hotbed.

As the young plants grow, and the weather gets warm, the sashes are opened a little, so as to let in the cool air and to harden off the plants. After a time leave off the sashes entirely during the day.

Do not set the plants in the garden until all danger of frost is past. It is almost impossible to have a tomato plant too large to set, but the larger the plant, the deeper into the ground it should be set. Wherever the stalk touches the ground tiny rootlets will start, thereby enabling the plant to withstand the drought better.

If the ground is rich a good crop can be grown without using fertilizer, but I dig a hole twelve inches deep and in the bottom of it put a forkful of manure. The manure is covered with about an inch of dirt. Into the dirt a handful of commercial fertilizer is mixed and a dipper of water poured over it; the plant is set on this and the soil drawn well up around the plant.

I set my tomato plants three feet apart in the row, with four feet between the rows, and cultivate or hoe the soil between the plants once a week. If quality instead of quantity is desired, pinch off the ends of the branches and blossoms, leaving only five or six to mature on a plant.

My method of raising prize-winners is to fill a keg or pail nearly full of manure. Cover with water until the pail is full, and let it stand for a day. Then the water is dipped off from the top, and the tomato plants watered with it. It will make the fruit grow to a very large size. I have found that tomato plants tied up to stakes will yield more fruit, will ripen better, and there will be less loss by rot than where they are allowed to lie upon the ground.

In the fall, as soon as there are signs of frost, all of the fruit is picked off, whether ripe or green. The green ones are put up in a pile upon the ground, and covered up when the nights are frosty. They ripen in a short time, and are nearly as good as the ones which ripened upon the vines.

There is a good demand in the market for green tomatoes, if one has them for sale. I have never been able to supply the demand.

I have never had very good success with the early tomatoes. They do not yield nearly as much as the later variety, but they are worth growing on account of their earliness.—Ex.

WHY ROSES ARE PRUNED

A Rose bush if left to itself would produce a large amount of growth and numbers of blossoms, but owing to the quantity the quality would be very inferior. The object of the Rose grower in pruning is to concentrate the energies of the plant, as supplied by the roots, into a few eyes or buds so that the quality of the blossom is improved thereby. It follows that if the roots have only two or three eyes or buds to provide with sustenance the quality of blossom must be superior. But it must not be supposed that Rose plants require severe pruning when they are grown for garden decoration. They are capable of producing large quantities of blossom if the growths are only moderately pruned after the first year, and this should be the practice of all who have this end in view. It should be remembered that the best blossom is produced from the well-ripened growths of the previous year, so that the object of all Rose growers should be to rid their plants as far as possible of all wood over three years old. Of course, there are many Roses of the rambler type that should be very sparingly pruned, because in their case the object is to encourage great masses of blossom. It is always advisable to cut back the new wood to a good plump looking eye, and from this eye the new growth emerges, and ultimately produces those fine blossoms. Small hard shoots of the previous year must not be despised. They often yield very fine flowers, but in pruning their number should be reduced to a few, and especially such small shoots should be thinned out from the centre of the plants. Well-ripened shoots

are known by there being more hard wood than pith in their construction. Shoots produced late in summer are usually found to be very pithy. It is from the earliest shoots that we obtain our best flowering wood for next season. It is always best to prune Roses hard the spring following the planting in the previous autumn. By so doing the base of the plant is better formed. We usually cut them down the first spring to within 3 inches or 4 inches of the ground. We have just been looking at some plants thus treated last spring. They made splendid growth last summer and blossomed profusely. The more vigorous sorts should not be pruned so severely as the moderate growers, but even in their case we should prune more severely the first year than we should subsequently.—Ex.

GLOIRE DE DIJON WITH PINK BLOSSOMS

It often happens in some gardens that the flowers of this fine old Rose assume a pinkish tinge towards autumn, and most beautiful they are. In the variety Kaiserin Friedrich we have the pink tinting more or less constant, intensifying towards autumn. This season this variety is particularly beautiful; in addition to the pink shade there is also a salmon tint about the outer petals, a near approach to Mme. Berard. We scarcely realize the value of the old Gloire de Dijon and its offspring in these days of Hybrid Teas, and one may look in vain for a bunch at the National Rose Show. But what a good sort it is, the buds are so fresh. How fine we see this Rose in cottage gardens, where the cottager, with that courage belonging to his class, is not afraid to use the knife in thinning out the old wood. Some time ago, I saw a fine old tree that had been so treated, and its young growths had been tied over in such a way that they formed a shapely head. At flowering time the head was covered with pretty buds and flowers. I think this Rose, also Kaiserin Friedrich, Mme. Berard, Bouquet d'Or, Belle Lyonnaise, Le Soleil and other members of the Dijon group, should be grown largely as standards—they make such a display over a long season. Another good plan to grow them well—apart from on walls, where of course, they are unsurpassed—is to plant them as bushes, and peg down their growths so that they form, as it were, half-moon shapes. All over these bent rods of growth we get numbers of flowers in August, when other Roses are waning. Pillars also answer well if the stations are well prepared and the plants are on the Briar stock. These Roses are not always a success upon arches. They make most useful subjects for hedges, especially if thinly planted and some of the long growths are laid in horizontally.

A SAUCER GARDEN, ETC.

A saucer garden is made by filling a saucer with sand, in the center of which place a pine cone. Cover with sand, or better yet sand and garden mould. Sprinkle with mustard or canary seed, or use flax or chickweed. Keep moist all the time.

A large coconut cut in half and filled with a sponge in which to grow hemp seed makes a nice hanging basket. Keep the sponge wet. Small bulbs can be used if desired. Try growing an oak or horse chestnut in a vase of water. Get a long vase with narrow neck; partially fill with water, keeping charcoal in it to keep the water sweet. Keep in a dark place to rot, and not too dry an atmosphere. At times pour in a little fresh water, keeping it almost full all the time. It is not necessary for water to touch the tiny roots, which grow into the vase.

Turnips, sweet potatoes, nasturtiums, carrots, etc., all will grow in bottles or glasses of water.

A NEW BERRIED SHRUB

Berberis Wilsonae.—Berried shrubs have an especial charm at this time of year and anything new in this way that is also meritorious is sure of a warm welcome. Berberis Wilsonae is, both new and meritorious, a charming little berried shrub from Central China. It may be likened, perhaps, to a small-growing Berberis stenophylla. The branches are of a graceful arching habit of growth and bear a profusion of roundish, shining, coral-red berries. The leaves are quite small. It was thought so highly of by the Royal Horticultural society at a recent meeting that it was given a first-class certificate.

NEW FLOWERING SHRUBS

Deutzia discolor carnea.—This variety, the result of crossing D. scabra and D. discolor grandiflora, forms a dense and somewhat upright bush. The flowers are widely expanded and even reflexed, their color being bluish with the reverse of the petals of a deeper hue. The flowering season often extends over a month, owing to the development of new buds after the first flowers are expanded.

D. discolor lactea.—Of the same parentage as the preceding; this differs principally in the flowers being of a milk-white color.