

## GARDEN AND ORCHARD.

## STALK OF TOMATOES.

The training of tomato stems erect and single, each to a well-set eight-foot rod, combines neatness and economy. It secures more fruit, of larger size, finer form and richer flavour, while greatly enhancing the gardenesque tidiness and showiness of the plot devoted to these plants, without adding anything to the labour of their culture beyond the procuring of the stakes. But there is one drawback. The fruit ripens more slowly, because there is no check to the onward growth of the stem, such as occurs when the unsupported stem is bended or twisted by storms or by the weight of fruit. In the North, where the season closes early, this tendency to set more fruit than can ripen can be easily checked by pinching off late blossoms, and the ripening of the set fruit can be hastened by either loosening part of the roots or by piercing the stem below the fruit or constricting it with a ligature.

The greater sweetness and finer flavour of both tomatoes and grapes when the fruit is screened from the full glare of the sun either by the thin paper of a bag, or the natural defence of a leaf, should be generally known so well as to prevent the barbarous exposure of the fruit to the hot sunshine as is practised by so many in the false belief that it will improve the fruit by hastening its maturity. In this region many of the first-set tomatoes were affected with dry-rot, leaving a deep black scar nearly always upon the apex, which is the tenderest, thinnest part, and the first to show ripeness. But we had frequent rains after August 20, and the tomato plants made free growth, healthy foliage and abundant fair fruit from that onward.—*Shelah.*

## THE FARMER'S SMALL FRUIT PATCH.

On a subject interesting to every agriculturist, the *Farmers' Review* has the following:—

"Our small fruits, including strawberries, raspberries, blackberries, currants, gooseberries, and grapes, are more easily raised and more reliable than many of the larger fruits. There is seldom a year when they fail to give a fair crop of fruit. Most of them bear freely in one year from planting, and the others in two or three at farthest, and there is not that long waiting between planting and fruit which has to be endured with all tree fruits. Aside from tempting the palate they are all valuable as food articles of diet with the farther value that the pure fruit acids are just the medicine which the system needs to keep the digestive economy in the highest stage of efficiency and insure vigorous health. The natural craving for fruit which all experience is a wise provision of nature for supplying the system with just what it needs. It is a natural appetite, not an artificial or acquired one, as in case of alcohol, tobacco, and various other things in common use. In view of these facts, which all will admit, it follows that the farmer who has abundant room in which to grow them should grow all of the small fruits in such abundance as to keep the table supplied daily with the fresh fruit in its season, and with canned, preserved, or dried, during the remainder of the year. Many

have been deterred from making liberal plantings from the idea that these must be grown in the garden, involving an amount of care and labour which, in the hurry and pressure of farm work, they cannot bestow, and so the years go on with only a meagre and wholly inadequate supply of these fruits for family use. But they all are equally well adapted to field as to garden culture, and when so treated require little more labour for their care after once planting them for the same ground in other cultivated crops. The ground does not need to be made immoderately rich. Any well-drained land rich enough to grow sixty bushels of corn to the acre, if kept up to that standard, is good enough. A half acre devoted to this purpose is the least amount to which the farmer should limit the fruit patch. A half-acre plot, eight by ten rods, is a convenient shape. If the plot butts up to a fence, space should be left for turning, for the cultivation can be done with a horse as well as that in the corn-field. Let us see how much of each of the kinds enumerated this would give us, and the amount of stock required for planting. I would make all the rows eight feet apart, except the strawberries, giving ample space for development, for air and sunshine and for the roots to feed in the soil. This will give three rows of grapes, two each of blackberries, Black Caps, red raspberries, gooseberries, and currants, and five of strawberries, planted six feet apart, all ten rods, or 165 feet long. The amount of stock of each kind required will be as follows:—

Kinds.	Distance. ft. apart.	No. of plants.
Grapes .....	8	62
Blackberries .....	4	82
Black Caps .....	4	82
Red Raspberries .....	4	82
Gooseberries .....	4	82
Currants .....	4	82
Strawberries .....	2	412

The strawberries will be in full bearing the next year after planting. The blackberries, Black Caps, and red raspberries will give a partial crop the second season, and the balance come fairly to bearing the third year. All of them except the strawberries, which need frequent renewal, if given any reasonable care will bear for years, and the whole together would furnish such a supply of fruit that it can be upon the table in some form every day of the year."

## HOT-BEDS.

Gather and keep separate all the horse manure for some time previous, giving it a turn now and again to keep it from overheating, secure a nice dry sheltered situation facing the south. Dig out a pit a foot deep and two feet wider every way than the wooden frame in which you intend sowing your seeds; fill up this with the manure till it stand three feet high, be sure and shake the manure and if too rank mix some older stuff along with it, don't forget to give it a tramp as you proceed; If you have storm sashes at hand you have only to make your frame to suit them, allowing about a foot of a fall to run off rain. If you have not storm sashes order your glass so that it will do for both purposes. After the heat has gone down a little your frame will be ready for the seed. Most people sow in soil placed directly on the bed, I prefer sowing in shallow boxes. If you

sow them on the bed the unequal heat of the manure throws the soil off the level, what follows is that the half of the seed never sees water; and such plants as celery, cauliflowers, etc., are sure to disappoint the grower even though they look quite healthy when planted. I have always been successful by many well drained boxes four inches deep, eighteen inches wide and two feet long. If the boxes get off the level they can easily be tilted right again don't forget to put about an inch and a-half of rotten manure in the bottom of the boxes.

## TRANSPLANTING STRAWBERRIES.

As regards transplanting the strawberry, possibly some readers may be ignorant of one portion of the process, which to every one making a plantation in a dry time, is well worth knowing. In preparing the plant, do not pull off the runners, but leave, say, six inches of them attached to each side of the plant. Bend these ends of runners down and bury them with the roots. Plants thus provided with these "umbilical cords" on which to draw for nourishment, will survive and flourish in adverse conditions under which plants denuded of their runners will almost inevitably perish. The practice of this precaution in transplanting is equivalent to almost complete insurance of success, in spite of the weather.—*Country Gentleman.*

HERE'S our grafting wax recipe. You won't find a better one: To four pounds resin and one of beeswax add one pint of linseed oil; put in an iron pot, heat slowly and mix well. Pour out into cold water and pull by hand until it assumes a light colour, work into sticks and put into a cool place until wanted. In using, oil the hands, work the wax until soft and press it tightly around the graft and over the cracks. If the day be warm it is sometimes better to occasionally moisten the hands with cold water.

THE following points favour the setting of small trees: (1) Small trees have larger roots in proportion, (2) they cost less, (3) expressage or freight is less—expressing small trees is usually cheaper than freighting large ones, and then so much more speedy, (4) less labour handling, digging holes, etc., (5) less exposed to high winds which loosen roots, and kill many transplanted trees, (6) planters can form heads and train them up to their own liking, (7) with good care, in say five years, they will overtake the common, larger sized trees. Without good care, better not plant any size. (Above is the advice given in F. K. Phoenix & Sons' fruit catalogue). True.

In starting an orchard get trees not over three years old and plant them in nursery rows where they can be cultivated and cared for. Do this one or two years before wanted for the orchard ground. The broken roots will be healed, and new fibres formed that can all be taken up with the tree when moved again. When the time for planting comes, the trees are on hand; a few can be taken at a time and not exposed to wind and sun or bad "healing in." Imperfect trees are now easily detected without waiting till they have failed and made a vacancy in the orchard. Thus saith R. Johnston, of Shortsville, N. Y., in "Fruit Notes." It seems to us a sensible method.