

eventually be between seven and eight inches apart in the hot-bed to give the axillary shoots a good opportunity to develop. Plants should be hardened off well by giving good ventilation and removing glass in hot-beds in daytime for several days before setting out, as they will stand cool air much better after planting.

In growing plants for the canning factory and in growing the medium and late sorts, much less trouble is taken. The seed is sown during the month of March and the young plants are transplanted once or twice. At the final transplanting they are about five inches apart in the hot-bed or cold frame.

*Soil and planting.*—Tomatoes do best in a warm soil, either a good sandy loam or a light clay loam being suitable. It should be moderately rich in available plant food. Soil rich in nitrogen induces too much vegetative growth, but while the fruit is earlier on the poor, light soils there is not so much of it, hence one moderately rich in nitrogen with an adequate supply of phosphoric acid and potash is best. A soil which has been manured for a previous crop is usually in good condition for tomatoes, and they do well after clover as a rule. Each grower must learn for himself what his soil needs most. The ground should be thoroughly prepared for tomatoes, as for all other vegetables.

As the tomato is a tender plant it is not set out until danger of frost is over, the time ranging from the middle of May in the warmer sections to the first week of June where frost comes later.

Tomatoes should be planted four or five feet apart each way for field culture, but in the garden, where they may be trained if necessary, three feet each way is sufficient for the early varieties and those that are staked, or four by two and one-half feet for greater ease in getting among the plants. Care should be taken in planting not to disturb the soil about the roots of the plants while taking them from the hot-bed. The great advantage of having plants in pots or individual boxes is now very apparent, as those in this condition are not checked in their growth to any extent when planted out, and to obtain early fruit it is necessary to have as little checking of the growth as possible. If the plants become drawn up and lanky before they are set out they should be planted deeper in the ground than they would otherwise be. Roots will soon be thrown out from the buried stem. By planting tall plants deep in this way they will not be so easily broken by wind as they otherwise would be. Moreover, should there be a frost after planting, killing the plants to the ground, by removing two or three inches of the surface soil new shoots will soon be thrown out, the plants may be saved, and will soon grow rapidly again. This is a good plan in any case in the North where severe spring frosts are liable to occur. It is desirable to mound up the soil about plants to support them and protect from frosts.

As cut-worms are often troublesome about the time the plants are set out, poisoned bran in the proportion of 1 pound Paris green thoroughly mixed with 50 pounds moistened and sweetened bran, should be at once scattered on the surface soil about the plants. The cut-worms will eat this and die.

After planting, the chief work is cultivation, which should be done both ways in the plantation. Some hoeing will also be necessary. The surface soil should be kept loose from the day the plants are set out until they meet one another.

No training of the plants is practised in field culture as a rule, but if the weather should be wet and the soil found to be too rich, causing rank growth, it will check the growth somewhat if the plants are turned over. Usually, however, this is not necessary nor desirable. It is a good plan to mould up the soil towards the plants a little with the cultivator and hoe as this gives them some support.

In the home garden a very good way of growing tomatoes is to train them to stakes, and this method is becoming popular with market gardeners who desire to get fruit of the best quality. By this method only one stalk is allowed to grow, the lateral shoots being pinched out as they appear, but leaving the flower clusters and all leaves on the main stem, the terminal shoot being tied to the stake as it grows. Stakes 5 feet long and about 1½ inches in diameter are needed. Wires may be used for supports