

advantage that as the bees are driven from the combs they form in clusters on the bottoms of the frames and the sides of the hives, making it well-nigh impossible to locate the queen and to carry out other essential work with any degree of success.

The best fuel for the smoker is dry, clean sacking, no other material being as good. Avoid oily waste and cotton materials, as the smoke from these articles makes the bees vicious. When starting to manipulate a hive puff a little smoke in at the entrance, and, having removed the roof, puff a little more smoke on the frames as the mat is peeled off. This operation being complete, the frame nearest to the operator can be taken out, allowing of the prizing-apart of the remainder of the frames preparatory to making a complete examination of the whole. When handling bees all operations are best carried out in a gentle manner, avoiding at all times quick movements and clumsy manipulations which may crush them. It must be remembered that nothing irritates bees more than the odour of the poison which fills the air when bees are crushed.

—*E. A. Earp, Senior Apiary Instructor, Wellington.*

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## HORTICULTURE.

### The Tomato Crops.

THE tomato crop under glass is usually planted out, in the middle districts, towards the end of August. It is important to plant deeply and firmly. While such houses should be aired well at every opportunity in fine warm weather, the ventilators should be closed early in the afternoon before the temperatures commence to fall; 55° to 65° F. is a suitable range. If the temperature is allowed to rise much above this maximum it makes the plants tender and more liable to injury during a cold snap.

Fresh stable manure should be accumulated for hot-beds and carefully prepared. When it is in a suitable condition a foot or two in the bottom of a glass frame will provide sufficient heat, in moderately warm districts, on which to place seed-boxes for raising tomato and other half-hardy plants. In cold districts the usual hot-bed, 2 ft. to 3 ft. in height, will be required, and the frame placed on top. In large establishments the sterilization of the soil for seed-boxes has become a usual practice and much difficulty is avoided in this manner; but fungus troubles sometimes do occur, and in such cases a solution of permanganate of potash is an easy and convenient remedy. A stock solution may be made up, and a small quantity, diluted as required to a pink colour, may be sprayed on the plants from time to time, or they may be watered from a can with a fine rose. The permanganate may be used up to a strength of 1 oz. to 2 oz. of crystals to 4 gallons of water.

### Small-fruits.

Light cultivation in bright dry weather should be given to increase fertility and destroy seedling weeds. In many instances at this season it is advisable to apply bonedust and other suitable fertilizers between the rows just before hoeing, and so work the material well into the soil.

### The Market-garden.

As the rising temperatures encourage the growth of weeds as well as crops, the former should be eliminated from the competition before they gain any size. This is best done in bright windy weather, and every opportunity of the kind should be taken. This operation also increases fertility and affords a suitable occasion for working in such dressings of fertilizers as may be required. Not only should growing crops be given