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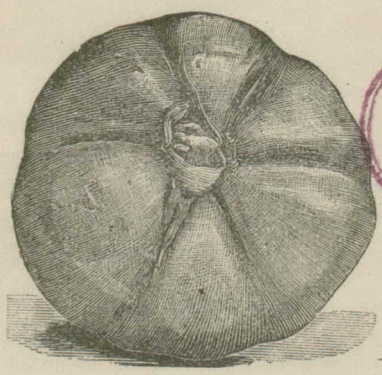

ON THE

GROWING AND MARKETING

OF

TOMATOES.

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ON THE GROWING

AND

MARKETING OF TOMATOES

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The possibility of marketing Canadian Tomatoes profitably in England has aroused a spirit of enquiry among market gardeners and fruit growers, relative to the best methods of growing the plants, packing the fruit, and the best varieties to cultivate for this special purpose. The following notes are prepared with a view of briefly answering these questions.

RAISING PLANTS.

The summer season of Ontario and Quebec is not long enough to admit of the profitable cultivation of tomatoes without the aid of a greenhouse, hot bed, or window box in starting the plants in spring.

Soil for Seed Boxes.—The soil should not be too rich. A mellow loam of good quality, with sand added to the extent of one-fifth of the whole, will produce stronger and healthier plants than will the leaf mould one frequently meets with in the soil of window boxes. If a greenhouse is available, the seed may be sown about the middle of March, or a month earlier if the plants are intended to serve the demands of the home market. A high temperature, 65 degrees to 70 degrees at night and 80 degrees to 85 degrees in the day time, will produce large, succulent, but tender plants. A too low temperature will produce stunted weaklings. Neither class is desirable. It is better however to have the temp erature slightly too warm, than too cold, in consideration of the

nature of the plant. Sow the seed thinly, in rows six inches apart, pressing the soil firmly over the rows. An ounce contains 8,000 to 10,000 seeds. The seedlings should be transplanted at least twice before setting them in the open field. This treatment gives strong, stocky plants. If grown *in the greenhouse*, the seedlings should be "pricked" into "flats" (shallow boxes) soon after the true leaves appear, setting them two to three inches apart each way. From these "flats" the plants are removed when they begin to crowd each other, to the cold frame or hot bed, setting them six to eight inches apart each way, or further if the plants are large. By the middle —or in a backward season—the last week of May (in this section) they will have made large, stocky plants and are ready to plant in the field. The sashes or other covers used to protect the frames should be kept off the frames to harden them, for some time previous to setting the plants out.

When the seed is sown directly *in the hot bed*, this should be done early in April. A strong, even heat is desirable, such as may be secured from a two-foot bed of horse manure. Sow the seed in four or five inches of soil, after the heat of the bed has subsided to 75 degrees. Additional cold frames should be provided for the reception of the plants when they are removed from the seed rows. Transplant twice, if possible, before setting in the field.

In Window Boxes.—Fairly good plants may be grown in boxes of soil, or in flower pots placed in well lighted rooms; but owing to the fluctuations of the temperature of the dwelling house and the lack of light, the plants are often "drawn," stunted or otherwise injured. When any considerable number of plants is required a hot bed should be employed. The remarks made above on transplanting from the seed rows apply with equal force whether plants are grown in the greenhouse, in the hot bed, or in the dwelling house.

FIELD CULTURE.

Soil.—It is a mistake to plant tomatoes in poor soil. It is true that a warm and somewhat light soil will produce better plants and earlier fruit than a heavy clay, but a large crop of smooth, well

grown tomatoes need not be expected unless the soil is fairly well enriched. Poor soils produce early, but small, and often badly shaped and much wrinkled tomatoes. Sandy or light clay loams, well drained, and well manured give the best results.

Preparing the Ground.—Plough deeply in the fall. In the spring apply 20 tons to 30 tons of barn-yard manure to the acre, plough again and harrow smooth two or three weeks before planting time. Harrow again just before marking out the rows, to destroy the first crop of weeds.

Setting the Plants.—It is better to set the plants in rows 5 x 3 feet apart than 4 x 4 feet apart each way, as the wider space facilitates the work of cultivating the plants and of picking the fruit. Planting will be expedited if a light furrow is opened in the line of each row.

Planting.—Before lifting the plants out of the boxes or frames, the soil in which they are growing should be thoroughly watered, so that it will be saturated to the depth of the lower extremities of the roots of the plants. A few hours after this is done the plants may be taken up with a ball of earth about the roots of each by using a sharp trowel, or a spade, if they are far enough apart to allow of the use of the latter implement. The plants should then be placed in carrying boxes, transported to the field in a cart or wheelbarrow and set in the freshly opened furrows. When planted, the ball of earth should be about an inch below the surface, and the soil firmly pressed about the lower roots. About three thousand plants are required to set each acre, when planted 5 x 3 feet apart. If badly grown and the plants are tall and spindling, they should be set in a slanting position with a view of covering the procumbent stem with soil so that it may strike root.

Cultivation.—Shallow and level cultivation should be given for a month after setting out. It is then advisable to attach the moulding wings to the cultivator and with these turn a slight furrow to the plants. The operation of hilling is finished by making with a hoe, about each plant, a broad sloping mound two or three inches in

height. This will tend to distribute the fruit and vines and by shedding rain will, to some extent, lessen the tendency to rot. After hilling, the level surface should be cultivated as long as it is possible to do so without injury to the plants. If growth is unsatisfactory it may be stimulated, by a light application to each plant of a mixture of muriate of potash or wood ashes and of nitrate of soda. Muriate of potash, 100 pounds, or wood ashes, 1,000 pounds, and nitrate of soda, 200 pounds per acre may generally be used with advantage. This mixture may best be applied by scattering it around each plant before hilling.

Training.—In field culture, it does not pay to train tomato plants to stakes or trellises. This system belongs to the garden of the amateur and may there be practised with economy as to space and satisfaction as to general results. In the field, some attention should be given towards securing a proper disposition of the naturally sprawling branches, to prevent too much interlacing and to secure their proper distribution.

PICKING AND PACKING.

Packing for the Home Market.—Pick the fruit when fully coloured, being careful to avoid bruising it. Discard all ill-shapen or blemished specimens. The fruit should be carried in baskets to the sorting shed and then carefully packed in the shipping baskets or packages. Place the fruit in the basket with the stem end downwards, wiping such specimens as are soiled, finishing the package with a "smooth face." Strong baskets—veneer is better than the splint—should be used, and these covered with a stout frame-like cover made of the veneer trimming material, but centered with leno, so that the fruit may be readily inspected.

Packing for Foreign Market.—If the fruit is intended for the European market, it should be picked when fully grown and just beginning to change colour,—if it is to be forwarded in *thoroughly refrigerated compartments*. Partly coloured specimens forwarded last year to Liverpool, with imperfect ice refrigeration, arrived in an over-ripe and unsatisfactory condition. If shipped by ordinary freight, which may be successfully done *with moderately cool compartments and good ventilation*, the fruit should be packed when

fully developed, but when yet green in colour and well "glazed." All fruit should be carefully graded as to size and with due regard to its characteristic colour when mature. Scarlet and purplish red varieties should not be packed together in the same case.

PACKAGES.

Light, strong wooden ventilated cases are recommended. A case of the dimensions given below will hold about 20 lbs. of medium sized tomatoes in two rows—or layers—about four dozen tomatoes deep. The layers should be separated by a sheet of stiff cardboard,—unless each specimen is wrapped in tissue or light printers' paper,—even with this precaution the cardboard division will be found useful. To prevent the fruit from shaking, place a layer of clean "excelsior" over the fruit before nailing down the cover.

The words "*Canadian Tomatoes*" should be branded upon the ends of each case. The name and the address of the grower should appear printed on a sheet within.

Dimensions of Case outside.—Length 22 inches; width 10 inches; depth 5½ inches. It should be provided with a partition placed crosswise in the middle. The boxes should be made of planed lumber, bass-wood preferably, with bored holes in the ends, or slits along the corners to give ventilation. Boards of the following thicknesses may be used in the construction of this box. Ends and partition ⅝-inch; sides, top and bottom ⅜-inch. Ventilation may be provided for, by using slightly narrower side pieces than called for by the depth of the box—say 4¾ inches. The top and bottom pieces should come flush to the corners. This would leave a narrow ventilating slit at each corner without weakening the case to any extent.

VARIETIES.

If it is intended to ship the fruit to distant points, medium sized, smooth, solid varieties should be grown. Most of the extra early kinds are inclined to be rough or wrinkled. Among those that seem best suited for export purposes, as tested here, are:—Longkeeper (Thorburn), Stone (Livingston), Favourite (Livingston), Liberty Bell and Cook's Favourite. Dwarf Champion is a smooth desirable sort, but not very productive.