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no. 125  
SPECIAL  
COLLECTION

GROW YOUR OWN TOMATO PLANTS

Prepared by the Horticulture and Plant Pathology Departments

Location of Plant Bed: Select a well drained, loose and friable soil that has not grown tomatoes or related crops for the five years preceding. A southern exposure, well protected from wind, is important in producing early plants. Locate the bed where it will not receive drainage water from an old tomato, tobacco, or potato field.

Preparation of Plant Bed: In the fall, plow under a liberal application of well-rotted manure and disc or mix well with the soil before seeding in the spring. Take care not to use manure that may have come from animals fed on cull tomatoes, or that may have had tomato vines or refuse added to it. After plowing, apply 35 pounds of 4-12-4 fertilizer to each 1000 square feet of plant bed. Where manure is not available a 5-10-5 fertilizer would be better for plant growing.

Selection of the Seed: Use high quality, certified seed of a recommended wilt-resistant variety. If seed have not been treated by the dealer, soak them in a 1-2400 solution of New Improved Ceresan or Ceresan M for 10 minutes, and then dry without washing. To prepare this solution, mix 1/3 level teaspoonful of New Improved Ceresan or Ceresan M in 1 gallon of water.

Planting the Seed: Sow the seed as soon as danger from frost is past. Plant in rows 12 to 16 inches apart, sow thinly or not more than 2 seeds per inch of row. The seed should be planted about 1/2 inch deep and the soil lightly packed, then covered with 1/2 inch or less of woods mold or rotted sawdust. When grown in hotbeds and transplanted to cold frames, spacing 4"x4" is desirable.

Spraying or Dusting the Plant Beds: It is very important to spray or dust young tomato plants to control flea beetles and other insects. Spraying or dusting is also a very important aid in controlling blackleg or collar rot and leaf spot. Make the applications at 3 to 4 day intervals, or as often as necessary to keep the plants covered. A mixture containing both an insecticide and a fungicide is necessary. If you prefer to dust, use one of the insoluble copper compounds in combination with rotenone or calcium arsenate. If you prefer to spray, use a 2-2-50 Bordeaux mixture with 2 pounds of lead arsenate. For small amounts use 2 ounces of blue-stone and 2 ounces of hydrated lime to 2 gallons of water and to this mixture add 2 ounces of lead arsenate. Ready-prepared copper spray materials may be purchased at seed stores but usually an insecticide must be added to these materials for the control of flea beetles, potato bugs, etc.

Handling the Plants: Great care must be exercised in removing the young plants from the bed, so that the roots are not damaged and so that the stems are not scratched or bruised. The very slightest injury to the tomato stem serves as a source for blackleg or collar rot infection. Use a trowel or pitch fork to lift the plants; never pull them up. It is very undesirable to make more than one pulling of plants from a bed, because the second and third pulling are usually diseased with collar rot. Keep the roots from drying

(over)

Transplanting to the Field: Set the plants in the field as soon as possible after pulling, and take great care not to bruise or otherwise damage them. Setting the plants in very wet soil frequently increases collar rot because when the soil is caked around the stem it provides ideal conditions for the disease to develop. The soil should be firmed around the roots, but left loose around the stems.

Starter Solutions: In cold damp soil, use  $\frac{1}{4}$  pint to each plant of a starter solution containing 4 pounds of a 4-12-4 fertilizer in 50 gallons of water.

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, STATE OF VIRGINIA, VIRGINIA POLYTECHNIC INSTITUTE AND THE USDA COOPERATING.

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