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Care of autumn and winter tomato crops

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By W. KOOYMAN, Vegetable Instructor, Horticulture Division

In recent years there has been a considerable increase in plantings of autumn and winter tomatoes in the Perth metropolitan market garden area.

Most of the plantings are of the variety Geraldton Smoothskin. This variety grows well under local conditions, and is recommended for planting of these late crops.

"Late" Crop

Seed for the late crop is planted during December and January and the tomatoes are harvested during the cooler months of the year. Because of difficult growing conditions the crop must be given special care if it is to give a satisfactory yield.

Growers contemplating planting a late crop should realise that the success of the crop depends on growing healthy plants, obtained by using good seed of a suitable variety. Varieties other than the Geraldton Smoothskin do not stand up well to cold weather, often fail to ripen properly, and are more subject to fungal diseases.

Disinfectants

It is recommended that the seed be disinfected before planting, by means of the "hot water treatment."

The seedbed soil should also be disinfected either with a solution of 1 per cent. formalin at the rate of one gallon per square foot, or with methyl bromide. Methyl bromide should be applied at the rate of 1 lb. per 100 square feet two to three days before planting.

The advantages of this treatment are that it destroys weed seeds, most nematodes, and harmful fungi and bacteria which may be present in the seed bed.

Lastly but of equal importance in the growing of healthy plants, is the disinfection of sticks, wire and posts, by dipping in a 1 per cent. solution of commercial formalin.
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A good crop of late tomatoes in the early stages. Note the well prepared stakes

Seedbeds

The seedbeds used in some gardens are often too small for the number of plants required. This usually results in weak and spindly plants which are likely to grow slowly.

If large areas are to be planted it is recommended that there be at least two or three separate seedbeds. These must be big enough to comfortably accommodate all the seedling plants and should be planted in succession at intervals of two to three days. This will ensure seedlings of the required size becoming available as transplanting progresses.

Transplanting

Tomatoes for the late crop are transplanted during the summer. For this reason it is best to transplant seedlings during the late afternoon or evening. This gives them a better start and prevents them from withering and burning on the hot soil.

Weak and spindly seedlings and those showing symptoms of diseases should be discarded.

Pruning

Pruning should take place at regular intervals to aid aeration in the crop, help in the prevention of diseases and to assist in the ripening and size of the fruit later in the season.

Leaf pruning in the early stage of growth is not desirable. The incidence of bacterial canker is considerably higher in plants where the bottom leaves have been removed.

Special care must be taken when pruning to avoid spreading diseases such as bacterial canker and mosaic which can be transmitted from plant to plant on the fingers or pruning knife.

Pests and Diseases

The tomato is susceptible to many diseases and insect pests and regular applications of insecticides and copper or zineb type fungicides are essential for the production of good fruit. The success of a crop often depends on the ability of the grower to recognise the most common troubles at an early stage and take the necessary control measures.

Fertiliser

“Late” tomatoes generally require dressings of up to one and a half tons per acre of a complete fertiliser, which includes nitrogen, phosphate and potash.

Phosphate requirements are highest in the early stages of growth, whereas
nitrogen and potash are required in proportionately higher amounts during the later stages. Most of the phosphate, which promotes early maturity and well balanced growth, should be applied in two or three dressings soon after transplanting.

The other fertiliser ingredients should be applied as light dressings at fortnightly intervals. This ensures steady growth and prevents the leaching of valuable plant nutrients with irrigation water.

Iron deficiency—common in some places—may be overcome by the use of recommended iron chelate sprays.

Irrigation

Late tomato crops must be irrigated with care. Over-watering is as harmful as water shortage, and may favour development of fungal diseases in the crop.

The frequency of irrigation depends on factors such as soil type, stage of maturity, condition of the crop, and prevailing temperatures. If temperatures are high at flowering time it is recommended to apply two or three irrigations of short duration daily in order to prevent the plants from withering. This will also assist in the setting of the fruit.

Water requirements of the crop are at their maximum during the fruiting period of the plant, and during warm weather every effort should be made to maintain a uniform moisture supply.

Crop Rotation

Better control of diseases and insects and the better use of the resources of the soil are likely to result from good crop rotation.

Serious diseases such as bacterial canker and fusarium wilt can be controlled by the simple practical method of not growing the host plant for a number of years in any one place. If tomatoes are grown at close intervals these complaints are likely to become more troublesome with a resulting decline in yield and quality of the fruit.

To obtain the best results from a late tomato crop tomatoes should not be planted on the same land unless the interval between the two crops is at least four years.

Harvesting

Harvesting of the late crop usually begins within eight to nine weeks from the time of transplanting.

The fruit should be harvested when it has reached the stage of maturity where the blossom end has just turned pink. When picked at this stage the fruit is able to withstand grading either by hand or mechanical means, and ripens normally.

When picked too ripe the fruit is more prone to mechanical injury, and becomes over-ripe and may break down in transit to country districts.
If the fruit is picked too green it fails to ripen uniformly and will have a blotchy appearance. Such fruit is very susceptible to secondary infection, resulting in total breakdown.

Wind Damage
The provision of windbreaks is advisable for growing successful crops of late tomatoes. Apart from blowing over and breaking the plants, strong winds may cause severe damage to foliage and fruit. Windbreaks should be erected or grown on the sides from which the most damaging winds usually blow. These may easily be produced from quick growing crops such as broom millet, maize or sunflower.

If planted densely enough, such windbreaks give good shelter for tomato crops under adverse conditions. They are inexpensive, easy to cultivate and have the advantage of being easily removed when they are no longer required.

HAVE YOU REGISTERED YOUR ORCHARD?

The annual registration of orchards became due on July 1, 1962. Under the regulations single fruit trees must also be registered.

Registration cards are available from shire council offices, clerks of courts, police stations and most post offices.

FEES CAN BE PAID AT:

Treasury Buildings, Cathedral Avenue, Perth, Monday to Friday, 9 a.m. to 4 p.m., until Friday, August 3.

Department of Agriculture, Jarrah Road, South Perth, Monday to Friday, 8.30 a.m. to 4.45 p.m. each week.

Fremantle: Water Supply office, Market Street, Monday to Friday, 10 a.m. to 3.30 p.m., until Friday, August 3.

ALL COUNTRY DISTRICTS: Clerk of Court's office, during July only. Officers of the Department of Agriculture will also collect fees at: Kalamunda district office, Fridays, 9 a.m. to 4 p.m., during July.
Harvey Irrigation Branch office, Mondays, Wednesdays and Fridays, 9 a.m. to 4 p.m., during July.
Bunbury Police Inspector's office, Wittenoom Street, each week during July.
Brunswick Hall, Thursday afternoons, 2 p.m. to 4 p.m., during July.
Waroona Irrigation office, each Tuesday during July.
Donnybrook Court House, Fridays, 9 a.m. to 4 p.m., during July.
Pinjarra Court House, Fridays, 10 a.m. to 3.30 p.m., during July.
Mandurah Police Station, Mondays, 9 a.m. to 4 p.m., during July.