

What To Do In The Garden Next Month

Summary of Operations During December

VEGETABLE SECTION

SUCCESSIONAL SOWINGS.

Beans, corn, lettuce (grow without transplanting), peas, (maincrop varieties till middle of December, then delay further sowings till advised), radish, spring onions (keep well moistened), turnips.

OTHER SOWINGS.

Carrots (shorthorn varieties if not sown last month), swedes (for cool districts, if not sown last month), parsnips (for use in late winter).

SEEDLINGS TO TRANSPLANT.

Broccoli, Brussels sprouts, cabbage (Savoy, winter and red), cauliflower, celery, celeriac, late crop of tomatoes (sown October).

PERENNIAL CROPS.

Rhubarb.—The harvesting should be discontinued towards the end of December, and the beds cultivated and dressed with farm and artificial manure so that plant food reserves, from which production will be obtained next spring, may be accumulated in the roots.

GENERAL WORK.

Tie up tomatoes and remove side shoots.

Use hoe frequently to destroy weeds and to conserve moisture.

Apply liquid manure to salad crops.

Thin out seedlings.

Spray to prevent disease and use derris dust to control white butterfly.

Earth up potatoes and other crops. Kumeras should receive this treatment before they begin to run.

FLOWER SECTION.

Complete the planting of gladioli.

Plant out dahlias and chrysanthemums.

Take tip cuttings of hydrangeas and set them in sandy loam to strike.

Lift narcissi and other bulbs as the foliage yellows and will break away from the bulbs without difficulty.

Narcissi bulbs should be replanted promptly, but some other bulbs, notably hyacinths and irises, are better dried off completely. Tulips and narcissi, which sunscald readily, should not be exposed to the sun.

"Journal," the fruit is attacked, and the blight is easily recognised by the appearance on the tomatoes of large, grey-black blemishes. Spraying with Bordeaux mixture is the best practical preventive.

Early blight of tomatoes is caused by the fungus *Macrosporium solani*. The plant is attacked in much the same way as with late blight, and similar preventive measures are recommended. Spray for prevention, not for cure.

Wilts

The tomato plant is subject to three wilting diseases—Bacterial wilt, Verticillium wilt, and Fusarium wilt. The only positive method of distinguishing the difference between the two last-named diseases is by the isolation of the fungus in the laboratory. Bacterial wilt may be identified if, when the main stem of the plant is cut through, a slimy substance is seen to ooze from it. This does not occur when plants otherwise affected are dealt with in a similar manner. The results of attacks on plants by these three diseases are, for all practical purposes, the same—a general wilting of the leaves followed by collapse and ultimate death. In the absence of wilting, the foliage may turn yellow, and death will be gradual from the base of the plant upwards.

The wilting above referred to is primarily caused by the fungi and bacteria gaining access to the stems of the plants, resulting in the disorganisation of the channels through which food and water pass upward. Entrance is first made through roots which have been injured, probably when transplanting, or by placing stakes too close to the plants. In this respect the reasons for the recommendation made in the September issue of the "Journal" for staking will be obvious.

The fungi above referred to are capable of living in the soil for many years, and are always ready to attack tomato plants when they are available.

Spotted Wilt

Spotted wilt, which may appear at any stage of the development of the plant, is easily distinguished by the sudden appearance of a bronze or rusty colouring on the younger top growth. It is assumed that the disease (a virus) is transmitted by the thrips *Frankiniella insularis*. There is no evidence that it is transmitted by seed or through soil; nor is it easy of transmission by the usual methods adopted for inoculating healthy plants. Plants attacked should be removed without delay. Provided the season is not too far advanced, replacement may be made.

Virus

Tomato plants are liable to be affected by virus diseases, but satis-

factory preventive or remedial treatment is still undetermined.

Pests

Insect pests which seriously affect the tomato plants can be effectively controlled by the use of Derris as a dust or spray, arsenate of lead, and nicotine sulphate. The two last-named can safely be mixed with Bordeaux mixture, but not Derris.

Crop rotation should be rigidly practised in the home garden. By this means the incidence of plant disease may be modified, if not entirely prevented.

—D. K. PRITCHARD, Instructor in Vegetable Culture, Wellington.



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