

## TREATING CHRYSANTHEMUM EELWORM

**Soil** for use in mixing seed-sowing composts should be sterilised, if that has not already been done, and other preparations made for providing the composts which will be needed during the spring. This subject is dealt with in detail in an article on pot plants on page 89.

### Reminders About Common Troubles

**Caterpillars** of various kinds usually start feeding on ornamental plants when growth begins in early spring. Leaf-roller caterpillars may now be seen on geraniums, and black, hairy, "woolly bear" caterpillars will be found eating holes in cineraria leaves.

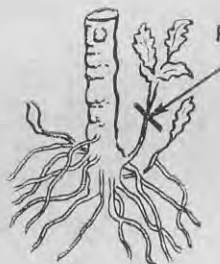
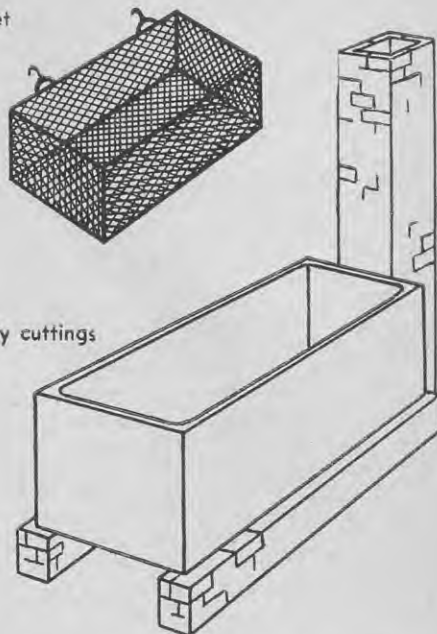
At this season these holes are conspicuous and the culprits can usually be found and killed by hand, but probably the easiest way of effecting a lasting control is to spray all the cinerarias, geraniums, and other plants which show holes in their leaves with lead arsenate used at the rate of 1½ oz. of powder to 4 gallons of water. Great care should be used, as lead arsenate is a deadly poison. The powder should never be left about, especially where there are children, however plainly it may be labelled, but should be kept strictly under lock and key.

**Hardly a season passes without news of a fatal accident to a child who has eaten the white powder in mistake for something else. That should be avoided by proper care, but there is much to be said for using only non-poisonous sprays in the home garden, and it is to be hoped that suitable non-poisonous preparations of, for instance, D.D.T. will soon be on the market.**

**Chrysanthemum eelworms** (*Aphelenchoides ritzema-bosi*) live in the leaves, where they cause dark patches which later turn nearly black, until ultimately the whole leaf withers and hangs down the stem before finally dropping off. The lower leaves are attacked first but the upper leaves are infested later, and the health of the plants may be undermined and the quality of the blooms ruined. This pest is extremely common and is present in almost all stocks of chrysanthemums, but where it is absent the greater vigour and strength of the plants can be noticed at once.

A full description of symptoms and methods of controlling eelworms was given in an article on pests and diseases of chrysanthemums on page 91 of the July, 1946, issue of the "Journal." The most effective way of eradicating the pest is to wash the dormant stools thoroughly and immerse them for 20 minutes (30 minutes for stools with very thick stems) in water at a temperature of 110 degrees F., afterward plunging them into clean, cold water

Wire netting basket  
to fit in tank



Remove leafy cuttings

A home-constructed tank suitable for hot-water treatment of chrysanthemum stools on a large scale. The home gardener can use the laundry sink (not the copper), controlling the temperature by adding hot or cold water. The chrysanthemum stool shown has been washed and prepared for immersion in the bath.

to cool off. This hot-water treatment kills all eelworms in and on the stools without affecting the plants. If stools thus treated are then planted out in, and the cuttings subsequently inserted into, sterilised soil or soil free from eelworm, perfectly clean plants can be produced for planting out.

To attain the correct temperature of 110 degrees as soon as possible the water should be a few degrees warmer when the stools are first thrown in. In small baths it may be as high as 116 degrees, but in larger baths 112 to 115 degrees will usually be hot enough to allow for the first drop in temperature caused when cold stools are thrown in.

The cheapest and most satisfactory thermometer to use is a floating dairy or household thermometer, which is relatively inexpensive. The cheaper thermometers, however, are rarely accurate enough for checking the temperature of hot-water baths for plant treatment, in which the temperature must be controlled to within a degree or less. The thermometer should therefore first be checked against one known to be accurate to ascertain how many degrees high or low it may be reading. A good way to do this is to check at, say, 100 degrees against a clinical thermometer, but be careful not to burst the thermometer by put-

ting it in water at more than about 108 degrees F.

Buckets of hot and cold water should be kept by the bath to correct too-rapid fluctuations of the temperature of the water, which should not be allowed to rise above 112 or to fall below 109 degrees, but should be kept as near 110 degrees as practicable. Gardeners who use this hot-water treatment regularly will agree that it is not as difficult as it sounds.

Stools which have been given the hot-water treatment are usually about three weeks slower than normal in producing cuttings. Allowance should be made for that delay if cuttings are required on a certain date, as for show chrysanthemums, which it is now too late to treat, though there is still time to treat the earlier-flowering types, which require a shorter growing season.

Unfortunately, unrooted cuttings cannot be given the hot-water treatment, as it usually kills them, but rooted cuttings can be tied in small bundles, surrounded by moss, and treated in the hot-water bath if that is more convenient than treating stools. Some of the leaves may turn brown after treatment, but the cuttings will soon produce healthy, clean leaves.

All photographs in this article by Photo News Ltd.