

CALLA ROOT ROT CONTROL

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It is an interesting but somewhat discouraging fact that although the control measures for calla root rot are simple and sure-fire and have been widely publicized, we continue to encounter serious loss from this disease. Often we find that no attempt at control has been made. At other times we find that some control measures have been employed but some important requirements have been neglected.

In one house, for example, the "bulbs" had been properly treated but had been replanted in ground beds. An attempt had been made to sterilize the soil in the beds, but obviously the sterilization had not been adequate. Recognizing the difficulty of obtaining adequate sterilization of deep ground beds, we have consistently advised against their use for callas in any house where root rot has previously been present. In another house the "bulbs" had been treated and had been replanted in sterilized tubs of sterilized soil, but these had been placed directly on the soil of ground beds where calla root rot had been present the year before. The disease organism had obviously grown up into the tubs from the underlying soil. In a number of instances new stock had been purchased but had not been treated because of the widespread but erroneous belief that "new" bulbs are necessarily disease-free. Another time a material that we do not recommend had been used for "bulb" treatment. And so it went.

Losses from this disease are particularly unfortunate because preventive treatment is simple and certain.

How to treat

1. Thoroughly wash the dried-off "bulbs" or rhizomes with a scrubbing brush to remove all adhering soil.

2. Cut out all rotted spots and set the "bulbs" aside for a day or two for the cut surfaces to cork over.

3. Give the bulbs one or another of the following treatments:

(a) Soak the bulbs for 1 hour in a 1 to 50 formalin solution (1 gallon of commercial formalin to 50 gallons of water or 1 quart to 12 gallons) and then rinse the bulbs in clear water.

(b) Soak the bulbs for 1 hour in a solution containing 1 pound of New Improved Ceresan and either 2 ounces (6 heaping tablespoonfuls) of Drest or 10 tablespoonfuls of Du Pont Spreader-Sticker to 50 gallons of water. Mix N. I. Ceresan to a paste with the spreader and a little water before pouring it into the remaining water. Stir the concentrated material with a wooden paddle to prevent burning your hands.

(c) Soak the bulbs for 1 hour in 1 to 1000 corrosive sublimate solution (1 ounce of corrosive sublimate to 7 1/2 gallons).

(d) Soak the bulbs for 1 hour in hot water held continuously within a degree or two of 122°F.

All of these treatments are fully effective so that the choice is up to the individual grower. The essential thing is that all stock, new or old, be given one or another of these treatments every year. An exception is old stock that has been disease-free throughout its history. Such stock needs no treatment and should remain free of root-rot indefinitely unless it is brought in on new stock.

4. Plant the treated "bulbs" in sterilized soil in sterilized containers.

5. Never mix new stock with healthy old stock. Keep new stock isolated for at least one full season -- preferably longer.

Use either large pots or tubs placed on clean gravel or on wooden racks. Do not place pots or tubs on beds or benches that have previously held diseased callas unless the soil and bench boards are thoroughly sterilized. Do not plant directly in benches or ground beds because the ground beds at least are very difficult to sterilize adequately. Furthermore, in either benches or beds, it is nearly impossible to remove all the diseased soil and thus check the spread of infection if an occasional "bulb" is not cured by the treatment. Pots or tubs, on the other hand, can easily be removed. If it is difficult to keep the pots or tubs moist enough, plunge them in moist sphagnum moss. This prevents evaporation from the sides of the containers, and the sphagnum does not support fungous growth.

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the Department of Commerce by this time results in the assurance that their Advisory Committee is seriously considering more adequate information for the Horticultural Specialties in the next Census for Agriculture, Wholesale, Retail, and Service Business, and the statistics of the Division having to do with Exports and Imports. This kind of information is currently being further cleared with the office of the World Census for 1950.

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M. Truman Fossum