

BACTERIAL RING ROT IN CERTIFIED SEED POTATOES

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Bacterial ring rot can cause severe losses to potato growers. Precautions should be taken to avoid infection. The following suggestions should help to minimize the loss from this disease.

1. Seed

The most important source of ring rot infection is the seed. Since some certified seed may be infected, the best procedure to follow in purchasing seed is to buy from a seed grower who has had his own seed stock for several years.

2. Storage of seed

The warehouse used for receiving and storing the seed should be cleaned and disinfected. This is especially true if table stock potatoes from various sources were previously shipped from this warehouse. The warehouse should be warm in order to break dormancy of the tubers and to promote rapid growth of the ring rot bacteria in any infected tubers thereby making the tuber symptoms more discernible.

3. Equipment and machinery in warehouse

Any equipment and machinery used in the seed-cutting operation should be disinfected. Some or all of this equipment and machinery may have been used for shipping table stock potatoes.

4. Gloves

People employed for cutting the seed should be furnished with new gloves. If ring rot is detected while cutting a certain seed source, new gloves should be furnished before the cutting of another seed lot.

5. Containers for abnormal tubers

Each seed cutter should have a container to deposit cut or whole tubers that do not appear normal. The contents of the containers should be examined frequently by the foreman and any suspicious seed pieces and tubers should be examined by someone qualified to diagnose ring rot.

6. Treatment of cut seed

The treatment of cut seed by dipping is one of the most effective methods of spreading ring rot. A wet treatment should be sprayed on the cut seed pieces as they are conveyed on a belt. One of the advantages of a dust treatment is its improbability of spreading ring rot.

7. Bags and trucks receiving cut seed

Never use old bags for sacking cut seed. It is generally the practice to use the same bags in which the seed was shipped. Truck beds should be disinfected.

8. Planters

Borrowing the neighbor's planter can be a source of ring rot infection. Borrowed planters should be cleaned and disinfected.

9. Crop rotation

The ring rot organism can survive in the field in infected tubers that do not freeze. The chances are remote that this would be a source of infection the following year. However, potatoes should not be replanted in the same field because of the possibility of some tubers being infected with the leaf roll virus.

10. Disinfectants

Several disinfectants have been recommended for disinfecting warehouses, equipment and machinery. One of the most satisfactory for this purpose is Roccal used at a dilution of 1 pint in 25 gallons of water.