

D
Potato

RING ROT

Know it! Control it!



Federal Cooperative Extension Service
Oregon State College
Corvallis

EXTENSION CIRCULAR 557

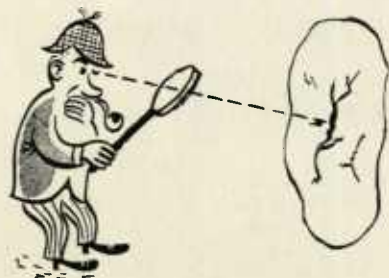
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If you find--

- ▶ Green wilt of leaves and stems late in the season.
- ▶ A milky material that can be squeezed from the base of cut stems on wilted plants.
- ▶ Tubers that have a cheesy, creamy yellow material or dry, gray or brown pockets in the vascular ring.
- ▶ Tubers that are sound in the center and the outside—but that separate along the vascular ring when squeezed or broken.
- ▶ Tubers at digging time showing surface cracking. (Front.)
- ▶ Empty "shells" at digging time.

--suspect Ring Rot!



To be sure — check with your County Extension Agent.

Potato ring rot is caused by very infectious bacteria.

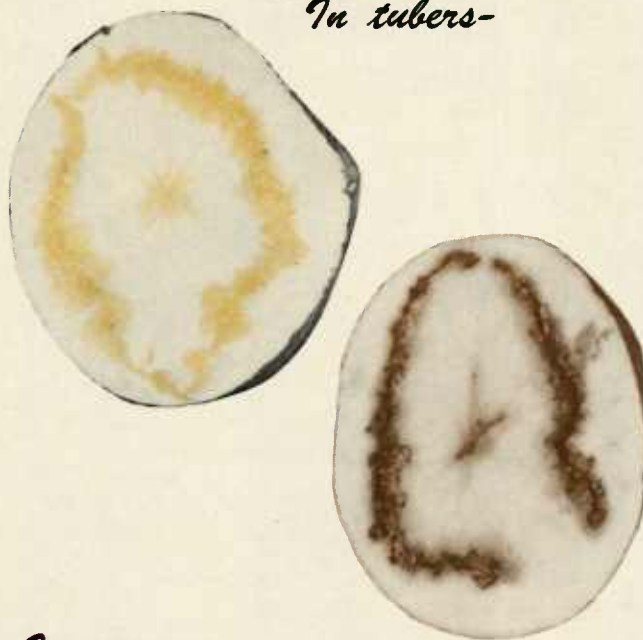
These bacteria live or may be carried on or in:

Potatoes
Equipment
~~Clothing~~
Sacks

They do not live over winter in the soil.

Here's how it looks--

In tubers-



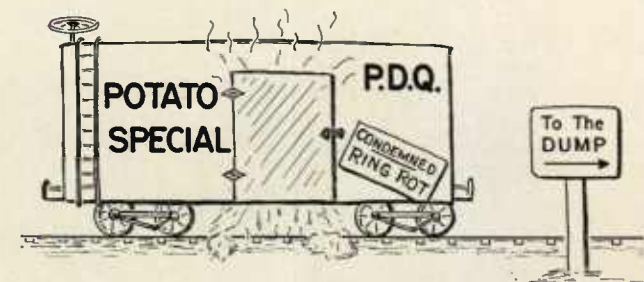
In vines-



Ring Rot is costly!

It results in--

- ▶ **Lower yields**—Due to poor stands, plants dying and tubers rotting. From 1 to 100 per cent of a crop can be lost.
- ▶ **More storage rot**—Affected lots breakdown in storage, contaminate other tubers, lower the value.
- ▶ **Higher marketing costs**—Affected lots are hard to sort, sometimes must be re-sorted, sometimes breakdown on way to market and become unmarketable.
- ▶ **Lowers salable volume**—Due to loss in storage and in transit
- ▶ **Loss of seed**—Affected seed must be disposed of. No ring rot is permitted in certified seed.
- ▶ **Disinfecting costs**—Of seed, cellars, equipment, sacks, and clothing.
- ▶ **Ulcers**—They're costly too—just ask the man who owns one.



If you find Ring Rot--

- change*
- ▶ Get rid of all of the affected lot.
 - ▶ Do sorting and grading on the farm.
 - ▶ Save no seed from the affected lot.
 - ▶ Keep visitors out of affected fields.
 - ▶ Loan no equipment, sacks or machinery without first disinfecting.
 - ▶ Disinfect storage and equipment.
 - ▶ Sterilize or destroy all sacks used in handling the potatoes.
 - ▶ Plow up volunteer potato plants that grow from the affected lot.

These chemicals will kill

Ring Rot bacteria--

In storage houses:

1. Lysol — 1 pint in 25 gallons of water.
2. Copper sulfate — 3 to 6 pounds in 100 gallons of water.

On cutting knives and equipment:

1. Lysol.
2. Mercuric chloride (corrosive sublimate)—4 ounces in 25 gallons of water.

In tuber unit planters:

Semesan Bel — 1 pound in 10 gallons of water.

To avoid Ring Rot--

- ▶ Use certified or foundation seed or, when seed is selected from a commercial lot of potatoes, do the sorting on the farm.
- ▶ Treat seed. Use 1 to 2 hour soak of mercuric chloride on whole seed or Semesan Bel on cut seed (when planted immediately).
- ▶ Disinfect seed cutting knives.
- ▶ Disinfect storage each year.
- ▶ Use only new or disinfected sacks.
- ▶ Disinfect equipment each year.
- ▶ Avoid loaning and borrowing equipment.
- ▶ Keep seed potatoes apart from commercial stock.
- ▶ Avoid visiting fields or cellars where ring rot is known, unless proper precautions are taken.

For more detailed information see Oregon State College Agricultural Experiment Station Circular of Information 491, available from your County Extension Agent or direct from the College.