

SPUD NOTES

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✓ THE IMPORTANCE OF A THOROUGH ROGUING PROGRAM FOR CERTIFIED SEED GROWERS

J. L. Forsberg

Many growers of certified seed potatoes apparently do not realize the importance of a thorough roguing program. Roguing the fields once or twice merely to get them passed by the inspector certainly should not be the goal of a good certified seed grower. The grower who realizes the dangers of an inefficient roguing program will take the matter seriously.

Most of the virus diseases of potatoes are spread in the field by certain insect vectors which transmit the virus from diseased to healthy plants. Although some of this spread may be detected during a current growing season, much of it does not become apparent until the diseases show up in the next year's planting. This is especially true if infection took place late in the season.

Symptoms of some diseases are more evident under certain weather conditions. For example, symptoms of mild mosaic are more apparent at temperatures below 75°F. Mosaic symptoms have a tendency to be masked so they cannot be detected when the temperature gets above 75°. Spindle tuber symptoms are more evident at 77° than at 60°.

The earlier in the season a diseased plant can be detected and removed the more effective the roguing will be. If a diseased plant is removed before the insect population becomes large the less are the chances of the plant serving as a source of infection for the healthy plants around it. The longer a diseased plant is left in the field the greater the chances of it being covered by other plants so it will be overlooked and left in the field to perpetuate itself.

Thus, to be effective the roguing must be started early, at least by the time the plants average 4 or 6 inches in height; it should be repeated often, preferably about once a week in the early part of the season, and done thoroughly so that all plant parts which might grow again are removed from the field. A good method is to place all rogued plants in a sack and carry them to the end of the field where they can be hauled away as soon as possible.

Some growers make a practice of leaving the rogued plants to dry and wilt before they are gathered and destroyed. This practice may result in more disease dissemination than if the plants had not been removed. The insect vectors leave the wilted plants and become widely scattered, establishing themselves on the healthy plants in the seed plot. This reduces the effectiveness of the roguing.

It is a good practice to remove all abnormal plants as soon as they are noticed. Many growers remove only the plants that are obviously diseased and leave all those that are doubtful for later observation. In this manner many diseased and undesirable plants remain unrogued entirely, or remain longer than necessary as sources of disease spread. It is the safer plan to remove all the abnormal plants as soon as they are found.

✓ MORE ABOUT LATE BLIGHT

W. A. Kreutzer and John G. McLean

Fortunately, the weather this past growing season did not favor the spread of late blight as did the weather in the fall of 1942. However, there was some infection.

At the present time the principal concern is tuber rot due to late-blight infection. Although the amount of tuber rot present cannot be altered, there are practices which will reduce grower's losses from tuber rot. These practices will affect losses from this year's harvest.

1. Harvesting

When harvesting a field where late blight tuber rot is quite noticeable familiarize your pickers with the symptoms of tuber rot and request that they avoid picking tubers which show any evident infection. A dark discoloration under the skin may indicate rot. Any tuber showing evident infection will not store, is a menace to healthy tubers with which it comes into contact, and would neither pass inspection nor ship.

2. Storage

It is almost impossible to detect very slight infection of tubers. Consequently it may be dangerous to store tubers from fields where considerable late-blight tuber rot is in evidence. Many of these lightly infected and healthy-appearing tubers may break down in storage. It would be advisable to put such tubers on the market, since they are perfectly good for immediate consumption.

3. Washing

Although washing is not ordinarily a dangerous practice, in late-blight years it is not desirable. Infected tubers carry the spores of the late-blight fungus. Since late blight is spread chiefly by water, washing such tubers spreads late-blight spores to healthy tubers which in the presence of moisture brings about infection and rotting of healthy tubers.

✓ WAR APPROVED SEED

W. F. McGee

Most growers are now aware of the status of the new "War Approved Seed" which was set up by the C. F. A. This new seed grade does away with all "selected seed" or ordinary table stock sold at seed prices. This year all potatoes not designated as Foundation, Certified, or War Approved must be sold at table stock prices.

The Colorado Certification Service has been busy inspecting fields for War Approved seed. These fields were not eligible for certification but were better than the ordinary table stock fields and had a past history of certification. In order to obtain War Approval classification the fields had to pass one field and one bin inspection.

Some growers with small lots of War Approved seed do not feel that it will pay them to store this seed for spring delivery and some do not have adequate storage facilities. For this reason, good seed will be sold as table stock this fall and table stock will be planted as seed next spring. If potato growers who

are interested in obtaining War Approved seed can arrange to store it, the purchase of such seed now may mean better spuds next year. Anyone interested can get all the details by writing W. F. McGee in charge of Potato Certification, Colorado State College, at Fort Collins.

✓ EXCESSIVE LOSSES IN SEED POTATOES FROM FUSARIUM DRY ROT
CAN BE PREVENTED

W. C. Hatfield

One of the principal dry rots of stored potatoes in Colorado is that caused by the fungus Fusarium trichothecioides. This mold is found both in the soil and in potato cellars where dry rot has occurred. As a rule only injured (bruised, scuffed, or cracked) potatoes are attacked by the dry-rot fungus.

To prevent excessive losses from dry rot care should be taken in digging, picking, hauling and in storage to keep the incidence of injury as low as possible. In addition it is advisable to clean out storage bins in which dry rot has previously occurred before storing the new harvest. It is also a good plan to spray such bins with a solution of copper sulphate (at the rate of 4 or 5 pounds dissolved in 50 gallons of water) or Bordeaux mixture to kill the spores of the fungus.