

AGRICULTURAL EXPERIMENT STATION  
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CONTROL OF BROWN ROT OF PRUNES  
by

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Prunes have been grown extensively in Oregon for many years. Brown rot is a common disease of prunes, particularly in the Willamette valley. Its severity varies from year to year depending upon climatic factors. During green fruit stages no significant amount of brown rot is apt to appear unless there is considerable wet weather. As the fruit approaches the ripening period the danger from brown rot becomes greater, especially if there is much wet weather or very high humidity.

With the prospect of heavy shipments of fresh prunes this year the danger of losses from brown rot in transit must be guarded against. Brown rot originates primarily in the orchard but may spread disastrously in the pack after harvest, in fact at any stage of handling from orchard to consumer.

In a year favorable to brown rot development it may not be possible to avoid all rot by preventive measures but the following program is suggested to reduce losses to a minimum.

I. Spray or Dust Program: The best known materials for the control of brown rot on prunes are sulphur spray and sulphur dust. These are about equally effective and the grower may use whichever he prefers or is equipped to use. If dust is preferred use 325-mesh sulphur or finer. Dusting has several advantages over spraying, such as ease and economy of application, and less objectionable appearance of residue on the fruit.

As a spray for prunes ordinary sulphur with a commercial wetting agent is most practical. Such commercial wetting agents as Vatsol, Nacconal NR, and others available through dealers,\* are superior to the casein-type spreaders because of the waxiness of the prune fruit, and the fact that these do not leave as conspicuous residues as the casein spreaders. Use 1/4 lb. of the wetting agent to 100 gallons of spray.

To prepare the spray, add the wetting agent to about 2 gallons of water; stir while sifting in the sulfur. When thoroughly mixed pour into spray tank and fill to capacity.

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\* Miller Products Co., 1932 S.W. Water Avenue, Portland, Oregon.  
California Spray Chemical Co., 2127 N. Albina St., Portland, Oregon.  
Van Waters & Rogers, Portland, Oregon.  
American Cyanamid and Chemical Corp., 1507 W. Lovejoy St., Portland, Oregon.  
National Aniline and Chemical Co., 730 W. Burnside St., Portland, Oregon.

If the orchardist has wettable sulfur already on hand it may be used instead of the ordinary sulfur with a wetting agent as described above. The latter, however, is cheaper. Even some wettable sulfurs may need extra wetting agent, unless the directions given by the manufacturer indicate that they have enough of a suitable wetting agent present. A trial on some prunes will indicate whether the spray wets sufficiently well.

A. Time and Number of Applications will vary with weather conditions but the following recommendations will fit the average year.

1. First Application: Three to five weeks before harvest, according to weather. Six pounds sulfur plus 1/4 pound wetting agent to 100 gallons; or dusting sulfur.
2. Later Applications: Repeat once a week, using same materials as No. 1.
3. Last Application: Make the last application of dust or spray just a day or two before picking. This is very important.

II. Other Precautions Recommended: In addition to a well planned and executed spray program there are certain other practices which should help materially in reducing the amount of brown rot in shipments of fresh prunes.

1. Exercise the greatest care in picking and handling to avoid stem punctures and any other fresh abrasions. Any break in the skin of the fruit enables brown rot to gain a foothold more easily.
2. Avoid placing fruit with any brown rot spots in the lugs when picking.
3. Dust thoroughly both the lugs and the packing boxes inside and outside with dusting sulfur before using. The lugs should be dusted each time they are used. This precaution is most important.