

PRUNE RUSSET SCAB CONTROL

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Objectives:

To determine efficacy and timing of chemicals for control of prune fruit russet scab, and comparison of experimental data with those obtained from grower survey.

Results and Conclusions:

Experimental plots were located in the counties of Yolo, Sonoma, and Colusa. Trees were sprayed at early bloom, full bloom, and petal fall (shuck split). Captan provided excellent control while benomyl (Benlate 50W) provided little-to-no control. The best timing was between early bloom and full bloom; spray at shuck split provided no control. Aircraft spray application gave control equivalent to ground spray. Dust application showed no control but this may be attributed to poor coverage.

Survey of fruit russet scab in commercial orchards was based on 499 grower reports with information on chemicals applied, application methods, and timing. Personal visits were made and fruit samples collected from 80 grower orchards in 11 counties. Survey showed russet scab was definitely worse in orchards with no fungicide than in orchards with fungicide applications. The chemicals used most frequently were captan, followed by Difolatan, benomyl, and dichlone (Phygon). Benomyl provided little if any control. Early bloom and full bloom sprays provided equal benefits, and petal fall sprays no control. Ground applications were slightly better than air applications, but not significantly.

Judging from the comparative data between experimental and commercial treatments, the results suggest the following:

Chemical to use: Captan or Difolatan.

Timing of spray: Early to full bloom.

Method of application: Ground or air.

Not suggested are: Petal fall applications.

Benomyl (Benlate 50W) for russet scab control.

Aircraft dust application until further data are obtained.

Work Planned:

Prune russet scab: Continue study on the cause of prune russet scab, attempt to reproduce disease, and determine why captan is effective while benomyl is not.

New

(cont'd)

New Projects:

Brown rot in the orchard: Because of the continuing importance of fruit rot in the orchard and in bins after harvest, a project will be initiated to study ways to reduce brown rot inoculum in the field. Sodium pentachlorophenol will be tested to determine its effect on sporulation of Monilinia fructicola and M. laxa-decayed fruit mummies. Further, field applications will be made to determine the benefits of dormant and blossom applications on fruit rot control.

Prune leaf rust: Leaf rust was severe in California from the July rains but no data is available on the actual damage it does to fruit production. No data on losses from leaf rust was available in France. Test plots are suggested to determine the best control chemicals and benefits of rust control on fruit production.