

Connecticut Agricultural Experiment Station

NEW HAVEN, CONN.

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GRAPE SPRAYING.

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In view of the fact that grapes are becoming an increasingly important crop in Connecticut a few suggestions for the control of fungous and insect pests seem desirable. The spraying of grapes has an especial interest because the first spraying to be done for the control of fungi was made for black rot on grapes in France. Also the experiments of Thaxter in Connecticut in 1889 for the same disease were among the earliest in this country.

BLACK ROT.

Black rot is the chief disease of grapes in Connecticut. It causes first a brown rot on the green fruit and finally the characteristic black shriveled berries, often destroying the entire crop in wet seasons if no control measures are used. It also affects the stems and leaves. On the stems it does very little damage, but on the leaves it produces more or less extended brown spots in which are the fruiting bodies that spread the disease during the summer. The mummied grapes and infected stems carry the disease over winter and furnish a source of infection the following season. On this account the vines should be thoroughly pruned each year and the rubbish burned. The mummied fruits should also be removed as much as possible each fall and destroyed. The year following severe attacks of black rot special attention should be given to spraying.

BITTER ROT.

Bitter rot is a fungous disease, somewhat similar to black rot in its effect on the fruit, and occasionally does damage. The spray schedule for black rot will take care of it.

MILDEWS.

Downy and *powdery mildew* are fungous diseases of lesser importance which attack the foliage and fruit of grapes. The downy mildew produces a whitish tufted growth on the under surface of the leaves and causes a brown rotting of the fruit. The powdery mildew occurs chiefly on the upper surface of the leaf as a cotton-like growth. Neither requires treatment other than that given for black rot.

SPRAY SCHEDULE.

- No. 1—When leaves are small (about the middle of May.)
- No. 2—Just before blossoming.
- No. 3—Soon after blossoms fall.
- No. 4—Two or three weeks later (according to weather.)
- No. 5—Two or three weeks after No. 4.

Note—Do all spraying *very* thoroughly.

Use Bordeaux mixture 4-4-50 for all the sprayings with the addition of lead arsenate in the earlier ones *only*, for leaf eating insects if abundant. If the rot has been bad the previous year a delayed dormant treatment may be necessary and if the season is wet more sprayings after No. 3 are desirable. *Do not spray after August 1st* as the spray will show on the ripe fruit. In the later sprays the addition of a casein spreader is advised as the Bordeaux adheres rather poorly to the fruit.

Spraying with self-boiled lime-sulphur has been used with some success as a repellent for *rose chafers*.