AGRICULTURAL EXPERIMENT STATION
OREGON STATE AGRICULTURAL COLLEGE

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Circular of Information No. 80. December, 1932.

CROWN TREATMENTS FOR HOP DOWNY MILDEW CONTROL

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It has been definitely demonstrated that crown treatments offer an effective and economical means of reducing the number of basal spikes as well as the total number of infected hills in Oregon hop yards where downy mildew is present. In one of our experimental plots in Oregon in 1932, 26 per cent of the treated hills were spiked with a total of 60 spikes while 51 per cent of the untreated hills were spiked with a total of 279 spikes. Experimental evidence favorable to crown treatments obtained during the seasons of 1931 and 1932 in Oregon has been substantiated by results secured in commercial plantings in British Columbia.

While further field trials are planned in an effort to improve present recommendations, and possibly to lower costs, it seems advisable at this time to recommend the method to growers with the suggestion that part of their plantings be left untreated as a means of demonstrating the value of the treatments under as wide a variety of conditions as possible.

WHAT TO USE.

A copper-lime dust composed of not less than 1 part of monohydrated or dehydrated copper sulphate (bluestone) to 6 parts of hydrated lime. (If powdered bluestone is used, double the amount of copper in the above formula.) This dust may be purchased ready-mixed or the bluestone and lime may be purchased separately and the dust mixture prepared on the farm, preferably just before it is to be applied. If farm-mixed materials are employed care should be taken to effect a complete and thorough mix. Whether ready-mixed copper-lime dust or bulk bluestone material is used, both materials should be purchased in metal cans which can be kept tightly sealed unless the materials are to be mixed and the dusting done immediately after the materials are delivered to the farm.

HOW MUCH TO USE.

Fifty pounds of copper-lime dust per acre or about one ounce per hill should be sufficient.

WHEN TO APPLY THE DUST.

Best results are obtained when the dust is applied in the spring before shoot growth has started and if possible after danger of flooding is past.

HOW TO MAKE THE APPLICATION.

The dust may be applied with a hand duster, an improvised sifter or by means of a coarse-meshed burlap bag. An even layer of dust about two feet in diameter should be applied around the crowns in each hill after the old vines have been removed. If pruning of the crowns is not practiced, or if pruned crowns are covered with soil immediately afterwards, the dust may be applied to the surface of the ground.

Better results may be expected, however, if the crowns are pruned, by applying the dust to the exposed crowns and leaving the crowns uncovered until the vines are strung. If growers desire to cover the crowns immediately after pruning, the dust should be applied to the exposed crowns before covering.

NOTE.

A one hundred per cent control of basal spikes cannot be expected. It will, therefore, be necessary to continue to patrol the fields regularly and to remove and destroy such basal spikes as may develop and to practice other control measures suggested in Oregon Experiment Station Extension Bulletin No. 440, a copy of which will be mailed on request.
