were fully open. The danger of injury from spraying such delicate organs was present of course in the mind of the owner and of the investigator, but the latter's previous experience in other orchards of applying one spray of Bordeaux mixture to open apple blossoms, for three successive years previous to this experiment, suggested that two such sprays would not result in injury to blossoms or in excessive russeting of fruit. It is well known that the latter type of injury, depending on weather conditions, may be had with the regular lime sulphur sprays as with Bordeaux mixture, although most observers agree that during cool, moist weather Bordeaux is likely to cause more russeting than lime sulphur. However, the writer's work up to the present suggests that in the Ozarks of Arkansas early season applications of weak Bordeaux on Jonathan apples, the only variety investigated, have not caused any large amount of injury to fruit and from this point of view have been satisfactory to the grower in every instance. The necessity of two spray applications to open blossoms is obvious. Very rarely will any large proportion of the blossoms open at the same time on any pome; often as much as two weeks or more intervenes between the opening of the first blossoms and the later ones.

The observations and results of this particular experiment to control blight may be briefly recorded as follows:

First, while much of the blighted wood of the previous year had been pruned out, numerous blighted twigs remained. Nevertheless, no exuding cankers were found on any of the trees prior to the first signs of blight.

Second, blight was first noted on April 25 in 22 blossom clusters on check trees. None was found on the Bordeaux sprayed trees. A thorough search on every tree for active hold-over cankers resulted in failure.

Third, blight was found in greater or less abundance on May 5 on almost every check tree, while the Bordeaux sprayed trees remained without any signs of blight. However, the amount of blighted blossom clusters on these checks was as a whole not nearly as great as in the past few years. Only one check tree showed as much as 308 blighted clusters, or 60 per cent.

Fourth, diseased blossom clusters having turned brown by May 9, the disease was now more easily detected. Accurate counts were made again on each blighted tree. The amount of disease on the checks appeared to be the same as that noted on May 5. On the Bordeaux sprayed trees, out of the 103 trees only three showed any blight, the total for the three being five blighted blossom clusters.

Fifth, on May 18, when many of the fruits had attained the size of one inch in diameter, secondary blight was noticeable, though not in great quantities, on about one third of the check trees, and on two of the Bordeaux sprayed trees standing in the row next to the checks. Four blighted leaf shoots comprised the total number of secondary infections on the Bordeaux sprayed trees, a number which represented a very small fraction of the total number, uncounted, on the checks. These secondary infections occurred on leaf shoots devoid of fruit clusters as well as on twigs bearing both succulent shoots and fruit clusters.

The results of this experiment are so clear cut that there can be no doubt about blossom blight having been almost completely controlled in the experimental spray plot. Viewed from a background of recurrent and disastrous epidemics of blight on pears and apples experienced in America for over a century, the results here cited are almost too good to be true. It appears doubtful to the writer that such nearly perfect control will always be obtained by this schedule. The results of this test, however, appear unmistakable. There remains to be determined the influence of this schedule on russeting of various varieties of pears and apples; its influence on setting and dropping of fruit; its effect on foliage, twig and limb growth; and its efficiency in controlling twig, limb and root blight. It is also possible that it may be effective in some years and in some sections of the country and not in others.

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AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF ARKANSAS

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