Spraying Calendar - Supplement
Michigan State University Extension Service
E.J. Rasmussen, Ray Hutson, Donald Cation
Revised March 1939
4 pages

Supplement to

THE SPRAYING CALENDAR

(Extension Bulletin 154 : March 1938)

E. J. RASMUSSEN, RAY HUTSON AND DON CATION

The 1938 Spraying Calendar, as a whole, has been satisfactory. By reference (page 3), it will be seen that minor changes were anticipated. These changes have been put into the form of this supplement with references to the **page** and **section** where changes are desirable.

PAGE 33

Section 53:

Experience during the 1938 season indicates that:

1. The addition of an equal amount of lime with most low-soluble copper compounds containing 25 per cent copper and of double the amount of lime with those compounds containing more than 25 per cent copper, reduces injury to the foliage, but also lowers the late-season effectiveness for leaf spot control.
2. Where foliage injury was experienced during 1938, it is advisable to add lime to low-soluble copper compounds in accordance with their copper content. This suggestion is made because late-summer leaf-spot infections are not so serious as early-season foliage injury.

Section 54:

The so-called D N (Dinitrocyclohexylphenol) sprays have given excellent control of black cherry aphid from strictly dormant applications.

PAGE 34

Wherever wettable sulphur is mentioned, the amount used should be in accordance with manufacturers' directions.

Use wettable sulphurs at strength recommended by manufacturer.

Cooperative Extension Work in Agriculture and Home Economics, Extension Service
Michigan State College and the U. S. Department of Agriculture Cooperating.

PAGE 36

Section 60:

Experience in experimental spraying indicates that zinc sulphate-lime as a corrective for arsenical injury may cause russetting of apples when used in pre-blossom and calyx applications.

Section 60:

The statement in paragraph two of this section is an example of how the iron-lime is mixed with lead arsenate for a peach spray. If the example had been for making up an apple spray it would have been 3 pounds of lead arsenate.

PAGE 37

Line 6 should read:

"For example, in the standard **4-4-100 mixture;"** instead of "For example, in the standard 4-4-10 mixture."

Section 61:

For the present, paradichlorobenzene is considered the most satisfactory material for general use in peach borer control. Ethylene dichloride emulsion and dichlorethyether may be applicable to special conditions and should be used according to manufacturers' recommendations.

PAGE 34

Brown rot for the last several years has caused large losses on stone fruits, particularly peaches.

A part of this loss is probably due to a lack of understanding as to the way the disease survives from year to year. Disposition of all fruits left in the orchard, on the trees, or on the ground is the most important step in brown rot control.

Control of brown rot should commence during the time the leaves are off the tree. Remove all mummied fruits from the tree and bury them. Cultivate the orchard early in the spring to insure that all fruits are covered at least 1 inch deep.

Control of curculio will pay dividends in brown rot control because this insect helps to spread the disease. *(See page 39, Sec. 67.)*

The standard fungicidal control of brown rot is outlined on page 34 of the spraying calendar. In some years additional applications of wettable sulphur are necessary for brown-rot control. Two applications at weekly intervals following application No. 4 (page 34) are important during rainy weather. A dust applied at the grader is necessary when a brushing or defuzzing attachment is used.

PAGE 37

Section 63:

BACTERIAL SPOT. This bacterial disease is most readily seen on leaves and fruit as small, angular or jagged, dark brown spots. It is distinguished

from arsenical injury by the small size and rougher margin of the spots which do not fall out as readily as those of arsenical injury. This disease became serious in many orchards in 1938. Experiments by the U. S. D. A. have prompted recommendations of 5 or 6 sprays of zinc sulphate-lime, 8-8-100, beginning with the petal-fall spray and repeat the applications at 14-day interval. This spray program will not eliminate the disease but apparently will prevent much of the injury.

Section 64:

CORYNEUM BLIGHT. Coryneum blight is serious in many orchards in certain areas in the state. On green shoots, leaves, and fruits, the characteristic circular lesions are readily identified by the red ring or margin surrounding the gray or cream-colored center. Defoliation and shot-holing accompany severe cases. Death of individually affected buds and gumming usually accompany the lesions on twigs. Bordeaux 16-16-100 applied in the fall about October 15 or about the time of leaf fall has effectively controlled this disease. This application will also control leaf curl. A second bordeaux spray, 8-12-100, should also be applied in the spring late in the dormant period in serious cases of the disease.

PEACH CANKER

Peach canker is a fungous disease affecting the twigs, branches, and trunks of peach trees. Cankers may occur on any part of the twigs, branches, and trunk, but are most common in the crotches.

The disease organism gains entrance to the host through winter-injured wood, pruning wounds, dead twigs, and brown rot cankers. Practice which will prevent winter injury, control brown-rot and keep trees in a moderate growing condition, together with proper pruning methods, is the first step in treating this disease.

Pruning—

1. It is best to delay pruning until about March 1, and then the older trees should be pruned first, leaving the younger trees until last. Earlier pruning may spread the disease.
2. Prune young trees lightly. Older trees need heavier pruning, the amount depending on the crop prospects.
3. No stubs should be left in pruning.
4. It is important to remove all dead wood at pruning time . If any is overlooked it should be removed not later than the end of June. This can be done at thinning time.
5. Remove all prunings from the orchard and burn as soon as possible.
6. Trim out cankers and coat exposed surfaces with an antiseptic.

Winter Injury—

Winter injury is more likely to occur most seriously on vigorous trees which were permitted to grow late in the season. Approximately 18 inches of terminal growth on young trees and 12 inches on bearing trees is satisfactory. Fertilize the trees so they will maintain the proper growth and no

more. Stop cultivating and sow a cover crop in young orchards late in June, and in bearing orchards not later than July 15th.

Spraying—

1. The brown-rot organism which causes a decay of the fruit often infects the twigs and these lesions in turn may permit the entrance and development of canker. Spray carefully to control brown-rot. Also, remove all fruits showing brown-rot infection before it has a chance to spread to the twigs.

The results of experimental spraying to control peach canker are limited and inconclusive. No noticeable differences could be noticed in any of the plots sprayed last season with several kinds of fungicides compared with unsprayed trees.

Treating Cankers—

The cankers should be trimmed out to live healthy bark and the exposed areas painted with a mild disinfectant such as shellac, kolofog, or Corona wound dressing. The lower end of the wound should be trimmed to a point to help healing and avoid collection of moisture. The cankers will heal more readily if treated the latter part of May or in June when the wood is growing rapidly.

CAUTION

Plum curculio and apple maggot show signs of increasing numbers during 1939. See Sections 41a, 42, and 67 for control measures.

Michigan State College of Agriculture and Applied Science and U. S. Dept. of Agriculture co-operating, R. J. Baldwin, Director Extension Division. Printed and distributed under act of Congress, May 8, 1914.

3-39 :30M