

As a concrete suggestion, I believe that there should be a commercial fruit growing section organized within this Society. It should undertake to act as a trade association for Wisconsin fruit growing interests. It should under the guidance of the Society and its Secretary work out questions of market data in complete co-operation with the existing statistical bureaus of the state. It should stimulate co-operative business activity of fruit growers, but should not itself enter this field. It should not request an undue share of the Society's funds, and should remember that there are other horticultural interests within the state that are not primarily related to commercial fruit growing. Whenever the activities of this commercial section pass beyond the borders of those which are legitimately supported by state appropriations, the private resources of the industry should provide the support. In this way, I believe, the fruit growing interests of this state can best work in harmony and in this way the Horticultural Society can best continue its long record of helpful support of the commercial horticultural development of Wisconsin. Without this sort of activity, the problems of marketing our Wisconsin apples must continue to be solved by each locality in its own selfish interests, and when they are thus handled, the advancement of Wisconsin's apple and other fruit crops will fall far short of our ideal. If we are to succeed in these difficult times we must work together for our common good; and in our own field, no better means of stimulation exists than to back up our program through this organization which is ready for the purpose.

SPRAYING APPLES

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When I attend a meeting of this kind the thing that I want to find out is, what the other fellow does,—why he does it and the results obtained. I don't care if his conditions are a little different from mine—if I can get these facts I can apply them or adopt them to my own problems.

Assuming that you feel as I do, I will state briefly our spraying plan for this year.

The trees in our bearing orchard previous to 1919 had not been sprayed. There consequently was some roughened bark to be cleaned up—no scab. This would have been worked off gradually in the course of the regular management, but this last summer we had a very bad blight infection, which was brought in by bees from neighboring farm orchards.

The farm orchards are typical throughout the state,—planted by people who know nothing of raising fruit, and who are too busy with their general farm work to give them the needed and timely attention they must have. They are a menace, and a serious one, and something should be done promptly, to provide for their care or removal. Blight of apple trees is as insidious as cancer in the human being, and calls for drastic and prompt action.

Along with the roughened bark condition and blight, we have a visitation of grain aphid. We want to catch as many of them as possible. We therefore shall put in a delayed dormant spray when the buds are swelling and aphid beginning to hatch.

This delayed dormant spray will be followed by the pre-pink when the clusters show color, but before the pedicels have sprouted, adding nicotine sulphate, if presence of aphid justify.

This is followed by the regular pink spray,—when the blossom buds are well separated in the cluster, just before opening. I believe this is the fruit spray recommended for this state aside from a dormant.

This past season, with us, development from pre-pink to full bloom took place practically over night. Owing to weather conditions, clusters held in the pre-pink stage longer than usual, and then, with a warm wave, burst into full bloom.

This may not occur again for some time,—again it may. If you are raising apples on any scale, you can hardly afford to take the chances. With a small acreage to get over,—one that you can cover in a day, it probably would not be necessary or advisable to apply this pre-pink spray unless you wish to grow top-notch apples—but, with a larger acreage, we do not feel safe in omitting this spray.

Following the "pink" comes the "caylx"—just as the last petals are falling and before the caylx closes on the main bud of each cluster.

In about ten days make another application.

This will probably carry you through until the spray for late brood of coddling moth and scab, somewhere around August 1 in our locality, unless you have conditions favorable for scab development.

We make a practice of putting on a spray between the 10-day and later coddling spray.

It goes without saying that you must first use the proper material, properly diluted and agitated, and *most thoroughly applied*, but even if you do this, it must go on at *just the right time*. It cannot wait until you finish planting or cultivating the corn or garden, or any of the hundred and one things you are hurrying to get out of the way. The spraying must be done *on time*, no matter what the weather, condition of ground or anything else. This means close watching of your trees from the time the buds swell in the spring and fast, thorough work at the proper stages of development. If your spraying has been disappointing, either you have not used the right materials, failed to do a thorough job or you have been too early or too tardy with your application. Our use of nicotine sulphate will depend entirely on the aphid situation. So much for our particular problem.

Personally, we have had the best success with good old lime sulphur, 32 or 33 Baume test, for fungicide. Dry lime sulphur may be good—we hope it is—but until the other fellow has experimented for some years with it, would hesitate to depend upon it.

Too much russetting with Bordeaux. Dusting we have found very expensive and unsatisfactory. We spray with 275 to 300 pounds pressure—with the wind, when we can. Use spray guns, because of speed.

With slight modifications to apply to purely local conditions, I know that a *careful* and *timely* application along the lines outlined will result in a crop of as fine, clean and attractive fruit as can be given anywhere in this country, providing, of course, you do the other needful things.