

One of the main objects of this circular, therefore, is to emphasise the importance and value of honest efforts to control this insect for the great majority of districts where it has established itself, rather than efforts at extermination, which will prove successful rarely, at best, and will always be accompanied with great immediate loss. The other principal object is to designate, briefly the means of controlling this scale insect which experience has shown to be of practical value.

*The Lime and Sulphur Wash.*

This is the invariable remedy for the San Jose Scale in California and much of the Pacific Coast, and it is, under the conditions of climate obtaining in that region, undoubtedly very effective. Early experience with this wash in the East threw doubt on its efficiency as an insecticide under the climatic conditions prevailing throughout the eastern half of the United States. Some later experiments, however, have shown that wherever the weather conditions happen to be very favourable, duplicating, in a measure, the conditions on the Pacific Coast, this wash is effective in the East also. Unfortunately, the weather conditions cannot be relied on, and, therefore, its use in the East is not recommended. But if a considerable period (10 days or two weeks, at least) of dry weather could be assured after the treatment, it would probably give very satisfactory results when properly made and applied. It is a winter application and is applied in January or February, or at any time prior to spring growth.

This wash is applied nearly every year, or as often as the San Jose Scale develops in any considerable numbers. It has the advantage of leaving a limy coating on the trees, which acts as a deterrent to the young scale-lice, and where it is not washed by rains retains its value as an insecticide coating for some time, remaining in evidence on the trees for several months.—*Circular No. 2, U. S. Department of Agriculture, Division of Entomology.*

*Orchards very badly infested with San Jose Scale should be sprayed twice, once in fall or early winter and again in spring before the buds open.* It is well nigh impossible to cover every portion of the tree at one spraying—though that should by all means be the aim—hence, where orchards are badly infested, it is advisable to spray twice each year until the scale is well in control. Thorough application of lime-sulphur wash, covering the trees from top to bottom, is necessary if good results are to be expected. Too often orchardists spray their orchards without proper regard to thoroughness, and the result is that they fail to get good results and then think the wash is responsible. Lime-sulphur wash does not spread easily like oil emulsions, and great care in spraying is necessary if good results are to be obtained. On windy days it is almost impossible to cover a tree on all sides with any mixture and on such days the lime-sulphur wash has its advantage, because it is easy to see at a glance what portion of the trees has been covered. The white coloured wash will show for itself. Frequently it becomes necessary to spray one side of the trees one day and wait until the wind blows from another direction before finishing the spraying.

When spraying orchards to control the San Jose Scale, it is imperative that all trees be sprayed. Not simply the trees that show infestation, but