

CONNECTICUT
AGRICULTURAL EXPERIMENT STATION

New Haven, Conn.

BULLETIN OF IMMEDIATE INFORMATION

No. 13

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SPRAY NOW
TO KILL EUROPEAN RED MITE.

By W. E. Britton, Entomologist.

THE EUROPEAN RED MITE IN CONNECTICUT.

In the summer of 1920, this pest was discovered in a number of Connecticut orchards; it is now known to be present in the following towns: Greenwich, Georgetown, Danbury, Milford, Branford, Guilford, Wallingford, Middletown, Meriden, North Haven and Farmington. It is an European species which has occurred in Ontario, Canada, for at least five years, and has been reported from Pennsylvania and New Jersey.

Though it attacks other fruit trees in Europe, the most serious infestations noticed in Connecticut have been on Baldwin apple trees. A certain orchard in Branford was severely injured in 1920; the leaves were brown in July and were notice-

able as far away as the orchard could be seen. The fruit was much under size at harvest time. Some injury was apparent on Hurlburt and McIntosh, but Greening did not seem to be injured, though mites were present.

Summer treatment with a dust mixture and several sprays did not prove sufficiently beneficial to warrant the treatment.

The facts regarding the presence of this mite in Connecticut and its possible seriousness as an orchard pest were placed before the members of the Connecticut Pomological Society at the annual meeting in Hartford, December 14-15, 1920, and will in due time be printed in the Report of the Society (See Report of Committee on Injurious Insects, Proceedings of 30th Annual Meeting, Connecticut Pomological Society). Several members asked how they could control the pest; no definite answer could be given, but a promise was made to send out information as soon as satisfactory control measures could be discovered.

A much more detailed account of this mite with description was prepared by Dr. Philip Garman, assistant entomologist of this Station, and will soon be issued in the Twentieth Report of the State Entomologist (Bulletin 226 of this Station).

WHERE TO LOOK FOR EGGS.

The mite passes the winter in the form of reddish globular eggs on the bark of the trees. They are usually placed around the fruit and leaf buds and in the axils of branches on the twigs, but sometimes are on the bark of trunk and large branches. They often give a distinctly reddish color to the tree when they are present in great numbers.

CONTROL MEASURES.

For the past month Dr. Garman has made many laboratory tests of different liquids in an attempt to find something that will kill the eggs, and though the matter is by no means completed or settled, so far the miscible oils like "Scalecide" have proved more effective than lime-sulphur, nicotine solution or any of the other preparations tested, as the following table shows:

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LABORATORY TESTS WITH COMMERCIAL INSECTICIDES
FOR CONTROL OF THE EUROPEAN RED MITE IN THE EGG STAGE.

Experi- ment number.	Treatment.	Total number of eggs treated.	Per cent. hatched in 3 weeks.	
1	Scalecide 1-15	1078	0.0	
2	Lime-Sulphur 1-9 + Nicotine Sulphate 1-500 of mixture	2166	16.0	Eggs used in Nos. 1, 2 and 4 were on different portions of a single branch, the branch having been cut into small sections and dipped, one in each of the mixtures mentioned. No. 3 consisted of eggs from a similar source, but on a different branch. Tests Nos. 6 and 7 are directly comparable, but in No. 5, eggs from a different source were used.
3	B.T.S. 12 lbs. - 50 gals.	1047	26.1	
4	None	2421	52.0	
5	Lime-Sulphur 1-9	773	34.6	
6	Sulco V.B. 1-25	482	28.3	
7	None	581	38.0	

It should be noted that these tests were made in a small way and must be confirmed by field experiments, but before this can be done it will be too late this season to benefit those orchardists who wish promptly to check this pest in their orchards. Hence this Bulletin.

RECOMMENDATIONS.

Where this pest is present in dangerous abundance, the trees should be sprayed very thoroughly so that every twig and portion of the bark is covered, using "Scalecide" or some other miscible oil (1 part in 15 parts of water). This spraying may be done any time before the leaves appear, or before they become large enough to be injured by the spray.

CAUTION: All oil mixtures are apt to separate slightly on long standing; the light ingredients will rise to the top and will not mix with water. As this may injure the trees, it is never safe to remove any of the oil for spraying until after the contents of the original package have been thoroughly mixed by shaking or stirring. Also see that the mixture is kept well agitated while spraying.