

OBSERVATIONS IN THE INTERIOR OF BRITISH COLUMBIA DURING 1959 OF THE EFFECT ON HONEYBEES OF ORCHARD SPRAYING WITH SEVIN

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In 1959 in the Interior of British Columbia a new insecticide, Sevin, 1-naphthyl *N*-methylcarbamate, was recommended for the control of several orchard pests. During the early part of the season reports were received from throughout the Okanagan and Kootenay Valley that where Sevin was used honeybees were being killed. Observations by the authors, particularly in the Oyama and Salmon Arm districts, substantiated these reports and confirmed the work of Anderson and Atkins (1959) that Sevin is highly toxic to honeybees. Sevin applied as a pink spray killed a considerable number of foraging honeybees from colonies located within about one mile of the treated orchards. The mortality of bees, as observed at the hive entrances, was extremely heavy for about three days after spraying. Dead bees continued to appear, although in greatly reduced numbers, for a further three

to four days. There was no evidence of brood poisoning although, due to a depletion in the numbers of workers, there was some larval mortality from chilling.

In many cases the wet weather during the spring of 1959 caused a delay in applying the "pink spray" until the late pink or early bloom stage. Lime sulphur which has been reported (Eckert, 1949) to have some repellent action and is usually applied in the pink spray was not applied with Sevin because the two materials are not compatible. These factors may have contributed to the high honeybee mortality. It is interesting to note that according to Carl Johansen (1960) a new bee repellent, R 874 (hydroxyethyl octyl sulfide), shows promise and may be effective in safeguarding bees against hazardous insecticides.

There appeared to be little ill effect on honeybees where Sevin was used as a cover spray for codling moth control.

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References

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