

in improving resistance to loss by gentle brushing has been noted. However, experiments on isolated leaves in a wind tunnel (4) show that wind itself does not cause appreciable loss of deposit. But wind-induced rubbing of leaf against leaf must cause considerable loss. The matter would bear detailed investigation particularly if a quantitative method of measuring the abrasive forces could be devised. More effective substances than Plyac, or a different rate or formulation, could conceivably produce a greater effect on persistence. Some preliminary experiments (4) suggest that certain acrylic polymers, at suitable rates, have an enormous influence on the abrasion resistance of insecticide deposits but, also, that resistance to abrasion loss is not necessarily identical with resistance to rain loss.

Summary

An analysis of the inter-leaf pattern of Sevin deposited on cherry foliage, by concentrate air-blast

sprayer has been made. There were no differences in mean deposit up to a height of 14 feet; nor were there any differences associated with leaves collected from different quadrants of the trees. Initially, deposits were approximately 75 per cent higher on the lower sides of the leaves than on the upper. Subsequent erosion of the deposits was faster on the upper surfaces so that the disparity was emphasized with time. There was no rain during the experiment; if there had been, there is evidence that this disparity would have been enhanced. The addition of an amount of Plyac, equal in its content of active ingredient to that of the Sevin, resulted in initial deposits approximately one-third higher than in its absence. The rate of decline of deposits was also somewhat slower when Plyac was present. In the absence of rain, loss of deposit by leaf-to-leaf abrasion is thought to be an important factor in the disappearance of a pesticide from foliage.

References

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Pleroma obliquata Sm. and *P. conserta* Grt. from ova laid by *obliquata* (Lepidoptera: Phalaenidae)

The progeny of a batch of ova laid by *P. obliquata* in April, 1960, consisted not only of the expected *obliquata* but also of 2 specimens of *P. conserta* in March 1961.

Many of the pupae remaining were alive, so they were kept over in a flower pot in an open shed. During March and April, 1962, these emerged 12 *conserta* and 4 *obliquata*.

Close examination of a series of these two species indicates that *conserta* is a melanic form of *obliquata*. One or two individuals showed a gradation between the two. *P. obliquata* is uniformly grey with dark a.m. and p.m. lines; *P. conserta* has primaries of solid

black except for the grey outer margin and a contrasting white costal area on which an extension of the otherwise concealed a.m. and p.m. lines are plainly evident. It may be that a prolonged pupal period results in a larger proportion of *conserta*.

The foregoing suggests that *conserta* and *obliquata* are forms of one species. Since *conserta* was described by Grote in 1881 and *obliquata* by Smith in 1891, *obliquata* is a form of *conserta*.

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