Honeydews as a Husk Fly Adult Diet

The preoviposition period was 15 days fed either walnut aphid or dusky veined aphid honeydew, deposited eggs and lived as long as four months. Thus, the honeydew excreted by the aphids that infest walnuts provides effective food for adult husk flies.

Artificial Husk Fly Larval Diets

An artificial diet for culturing husk fly larvae has been developed. Presently we obtain about 50% recovery of puparia from the number of eggs placed on the diet. We are now attempting to select for a non-diapausing strain of husk fly in order to have continuous production of husk fly larvae for parasite production.

Dusky Veined Walnut Aphid

Biological Control of the Dusky Veined Walnut Aphid

Robert van den Bosch

Dusky Veined Walnut Aphid (Callaphis juglandis)

The erratic seasonal and geographical occurrences of the dusky veined walnut aphid have hindered the field colonization of the parasitic wasp, Praon sp. However, we found an aphid population near Los Banos, Merced County, which persisted in goodly numbers throughout the summer. Parasites were colonized on this population and in the autumn mummified aphids were recorded from laboratory reared aphid samples and were also observed on the trees. Over-wintering survival of the parasite is being assessed and intensive parasite colonizations will be continued at Los Banos and other favorable sites in 1977.

Walnut Aphid (Chromaphis juglandicola)

The walnut aphid in a commercial orchard at Hanford, Kings County, was the lowest in five years of assessment. Despite the aphid scarcity, the parasite, Trioxys pallidus, was quite active.

Meanwhile, time specific life table studies of C. juglandicola were initiated to determine the factors influencing age structure of the aphid's population. Ultimately, these data will provide clear insight into factors causing aphid mortality. A similar study of the dusky veined aphid will be undertaken in the future.