REPORT OF WORK

PRIMARY FIELD: Entomology

COMPONENT: Parasitology

☐ CONTINUING
☒ COMPLETED (CHECK ONE)

Period covered by Report: May 1963 to Nov. 1963

DATE OF WRITING: November 1963

(If written plan has not previously been submitted, a Plan of Work must accompany this report.)

CROSS REFERENCE: Walnut Aphid Parasite - Trioxys pallidus

SUBJECT OF REPORT: Walnut Aphid Parasitism

Name(s): Lonnie C. Hendricks Jr.

County: Merced

Copies to: C.B. Alcorn M.D. Hudson
Dr. Robert van den Bosch
C.S. Davis A.D. Rizzi

Use the following headings:
PROCEDURE USED – RESULTS: a. Technical – b. Educational –
CONCLUSIONS

PROCEDURE:

On May 3, 1963 four thousand Trioxys pallidus wasps were released by Dr. Robert van den Bosch and Lonnie Hendricks at the Manuel Nunes walnut orchard in Gustine. There was a moderate population of the walnut aphid, Chromaphis juglandicola, and there was some aphid honeydew on the leaves. The release was made to border trees of an unsprayed orchard primarily of Payne variety.

Releases were continued by Dr. van den Bosch during the summer. A total of 57,400 wasps were released in five releases.

RESULTS:

a. Technical:

Early in October Dr. van den Bosch examined the trees for parasitized aphid "mummies." Many mummies were found but were either empty or contained dead pre-emergent wasp adults. Aphid populations were very light. Sixty fourth-instar aphids were collected for dissection, but none contained the parasite.

b. Educational:

Mention was made of the test plot and the possibility of a successful new bidogical weapon to use for walnut aphid control in my commodity letter FRUIT NOTES and on radio KIBS:

(Attach additional plain sheets as needed)

CONCLUSIONS:

A number of aphid mummies were found during the summer which seemed to indicate that the parasite was becoming well established. However, in October the absence of parasitized fourth instar aphids was discouraging, but this may not mean that the establishment is poor. This may be due to the dispersion of the parasite and also due to the lack of aphids. The aphid population has been very low during most of the summer.

Work will continue in 1964 in a different plot location.