

Abstract

Evaluation of subterranean ant infestation and its control in highland area were carried out in organic vegetable plots at 3 areas under supervision of the Royal Project Foundation; Royal Agricultural Station Inthanon, Tung Luang and Wat Chan Royal Project Development Center. Palm oil bait traps were used to investigate species and preliminary biology study of subterranean ant in organic vegetable plots. Stratified random sampling method was applied. Field monitoring was done to survey host plant and evaluate the ant infestation. This study was done during March to October 2018.

There are two species of subterranean ants were found in; *Dorylus laevigatus* and *Dorylus orientalis*. In the area of Inthanon found only *D. laevigatus* attacking root of organic vegetable, while Tung Luang found both species in traps, but at Wat Chan could not find subterranean ants in this period of study.

The simple identification of these two subterranean ants is by examining two characters of major worker 1) number of antennal segments; *D. laevigatus* with 12 segments and *D. orientalis* with 9 segments 2) head part with/without tiny hair; *D. laevigatus* without hair and *D. orientalis* with hairy head part.

Host plants of subterranean ants were baby pak choi, Chinese mustard, and Chinese radish. The highest percentage of damage caused by subterranean ants in baby pak choi was 21.93%, Chinese mustard 2.17% and 100% in Chinese radish.

