SUMMARY

Effect of crops associated with chayote [*Sechium edule* (Jacq.) Sw.] on functional groups of ants (Hymenoptera: Formicidae)

The development of associted crops or polycultures have contributed positively to agro-ecosystems. Some of the benefits attributed to this type of management is the conservation and efficiency of local resources and the maintenance of the balance of important plant-ínsect associations. In this study, we evaluated the effect of crop association in 15 chayote (*Sechium edule*) planttions with three levels of association (monoculture, biculture and polyculture) on species and functional groups diversity of ants in Ixtaczoquitlan, Veracruz, Mexico. Samplings were carried out by installing 5 honey traps placed in a 100m transect inside each plantation during the 2019 dry and rainy season. A total of 13,608 ant individuals belonging to 41 species, 19 genera, 12 tribes and 5 subfamilies were collected and catalogued into 10 functional groups. Functional group of Soil and vegetation opportunists was represented by 17 species, followed by the Small arboreal of massive recruitment (10 spp.). Percentage of shade produced by the foliage and the ground cover by litter increased as the level of association of the chayote crop with other crops increased. The height of the foliage, the percentage of bare soil and the soil covered by herbs decreased when the association of chayote with other crops increased. Intercropping favors diversity and the presence of predatory ants that can contribute to the regulation of pests, so it is important to maintain and promote this crop management practice as a strategy to maintain functional biodiversity that can provide agroecological services to the planting area.

Key words: pruning, Persian lime, vegetative buds, rainfed production, flowering