

## Introduction

The coffee thrips, is a potentially important insect pest for Arabica coffee in East Africa including Tanzania. The pest causes heavy defoliation of leaves during prolonged drought. In Tanzania it used to be a minor pest but since 2014 serious outbreaks have occurred in isolated areas. The Arysta Chemical Company has come up with a new product Crotale 46 EC which TaCRI collaboratively evaluated against thrips in the field.

## Materials/Methods

The evaluation of the pest was done at Burka and Oldeani coffee estates (Arusha region) from April to May 2022, using a CRBD with four replications. Six treatments including; Crotale 46 EC at a rate of 25 mls, 20 mls, 15 mls and 10 mls/20 lts of water, and Chlorpyrifos 480 g/l (standard) at a rate of 20 mls/20 lts of water and control were applied. The coffee leaves with thrips were randomly selected one leaf/tree and ten adult thrips per leaf. The mortality rate of thrips was counted after every 24, 48 and 72hrs, summarized to excel sheet and subjected to ANOVA using GenStart statistical package software.

## Conclusion/Perspectives

Crotale 46EC at a rate of 10 mls/ 20 L is recommended for economic reasons to be used by farmers because it resulted in a 100% mortality rate in the same way as the check (Chlorpyrifos 480 g/l) in all locations for the 3rd day of application. The chemical could be registered and incorporated into the IPM programme against coffee thrips in Tanzania.

## References:

- Shimales, T., Alemayehu, D. (2018). Occurrence and Evaluation of Insecticides for Control of Coffee Thrips (*Diarthrothrips coffeae*) at Cheleleki, Southwest Ethiopia, "International Journal of Research Studies in Agricultural Sciences" (IJRSAS), 4(11), pp 18 -22.
- Prakash, R. (2022). Management strategies for invasive thrips (*Thrips parvispinus*) in Chilli (ad-hoc). Plant Protection Adviser, Directorate of Plant Protection, Quarantine & Storage, NH-IV, Faridabad-121001 Technical Booklet- IPM-01/2022.



Figure 1: Adult coffee thrips



Figure 2: Coffee leaves attacked with thrips

## Results/Discussion

Results indicate that the treatments had a significant effect ( $P \leq 0.05$ ) on the mortality rate of thrips observed on the leaves of coffee on different concentrations applied across locations of coffee estates. Crotale 46EC at a rate of 25 mls in 20 L of water performed the best followed by 20 mls, 15 mls and 10 mls/20 L and control was the last. The mortality rate ranged between 8.3 to 100% from day one (24hrs) to day three (72hrs).