

TESTING THE EFFICIENCY OF ANISAF SH-01 BIO-PESTICIDE AGAINST *PSEUDOCOCCUS* SP. AND NEMATODES ON COFFEA AND *PIPER NIGRUM* IN THE TAY NGUYEN REGION

Ha Viet Son, Do Thi Gam, Nguyen Thi Thu, Duong Huong Quynh

Ha Viet Hai, Tran Thi Quynh Hoa, Bui Ngoc Anh

Ninh Thi Hoa, Le Van Thanh, Nguyen Thi Hoa

Summary

Coffea and Piper nigrum are strategic crops in the Tay Nguyen region. These crops are often damaged by *Pseudococcus* sp. and nematodes, leading to yield losses. We investigated the efficiency of Anisaf SH-01 biological pesticide against *Pseudococcus* sp. and nematodes with the goal to reduce chemical pesticide usage, and building an effective and sustainable agriculture. The initial results showed that Anisaf SH-01 was effective against *Pseudococcus* sp. and nematodes on Coffea and *Piper nigrum*. In specific, Anisaf SH-01 was highly effective against *Pseudococcus* sp. on Coffea and *Piper nigrum*, reaching 93.8% and 91.99%, respectively, at concentration of 0.7%, 4 liters/root after 21 day processing. Meanwhile, the Anisaf SH-01' effectiveness against *Pratylenchus coffeae* (on the coffee) and *Meloidogyne* spp (on the *Piper nigrum*) nematodes reached 51.2% (in coffee soil), 53.6% (in coffee roots) and 51.9% (in pepper soil), 54% (in pepper roots) at 0.7% concentration, 4 liters/root after 30 days. Compared to the control lots and lots sprayed with chemical pesticides, experiment lots applied with Anisaf SH-01 also produced better shoots and shinier leaves. Efficiency comparison with chemical pesticides suggested that Anisaf SH-01 can be used to eliminate *Pseudococcus* sp. and reducing nematodes population in Coffea and *Piper nigrum* in Tay Nguyen, thus reducing the use of chemical pesticide.

Keywords: *Anisaf SH-01*, *bio-pesticide*, *coffea*, *Piper nigrum*, *Tay Nguyen*.