

Effectiveness of Biopesticide against Insects Pest and Its Quality of Pomelo (*Citrus maxima* Merr.)

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Abstract : Effect of biopesticide from wood vinegar and extracted substances from 3 medicinal plants such as: non taai yak (*Stemona tuberosa* Lour), boraphet (*Tinospora crispa* Mier) and derris (*Derris elliptica* Roxb) were tested on the age five years of pomelo. The selected pomelo was carried out for insects pest control and its quality. The experimental site was located at farmer's orchard in Phichit Province, Thailand. This study was undertaken during the drought season (December to March). The extracted from plants and wood vinegar were evaluated in 6 treatments: 1) water as control; 2) wood vinegar; 3) *S. tuberosa* Lour; 4) *T. crispa* Mier; 5) *D. elliptica* Roxb; 6) mixed (wood vinegar + *S. tuberosa* Lour + *T. crispa* Mier + *D. elliptica* Roxb). The experiment was RCB with 6 treatments and 3 replications per treatment. The results showed that *T. crispa* Mier was the highest effectiveness for reduction population of thrips (*Scirtothrips dorsalis* Hood) and citrus leaf miner (*Phyllocnistis citrella* Stainton) at 14.10 and 15.37 respectively, followed by treatment of mixed, *D. elliptica* Roxb, *S. tuberosa* Lour and wood vinegar with significance different. Additionally, *T. crispa* Mier promoted the high quality of harvested pomelo in term of thickness of skin at 12.45 mm and *S. tuberosa* Lour gave the high quality of the pomelo in term of firmness (276.5 kg/cm²) and brix (11.0%).

Keywords : wood vinegar, medicinal plants, Pomelo (*Citrus maxima* Merr.), Thrips (*Scirtothrips dorsalis* Hood), citrus leaf miner (*Phyllocnistis citrella* Stainton)

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