

Effect of Acephate in Oil Palm Fruits and Palm Products After Trunk Injection

LIM, R R, NG, S K, MATHEWS, J, CHEW, T D AND AZIZAH, M J

The study investigates the residual effect of acephate and its metabolite methamidophos in various components of oil palm bunches following trunk injection. Fifty palms were treated with acephate (97% a.i.) at 8.63 g of a.i. per palm and monitored alongside twenty untreated control palms. Residue analysis was performed on fruitlets, kernels, and crude palm oil (CPO) at intervals of 5, 10, 15, and 20 days after treatment (DAT). Laboratory analysis revealed non-detectable levels of acephate in all components, while methamidophos was transiently present only in the fruitlets, peaking at 0.007 mg per kilogramme on 5 DAT and diminishing thereafter. No chemical residues were detected in the kernels or CPO, underscoring the safety of acephate trunk injection to be used for pest control while avoiding contamination of pesticide in kernels and CPO. Based on the current findings, acephate trunk injection is safe to perform in oil palm plantation without residues affecting the kernel and CPO.

Keywords: Trunk injection, pesticide residues, acephate, methamidophos, fruitlet, kernel, crude palm oil.



1919