B-90: Effect of pesticidal pre-treatments of pineapple plants, on the incidence of the mealybug wilt disease

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The factors affection field incidence of the pineapple mealybug wilt include climate, soil, agronomy and pineapple variety. The pink pineapple mealybug, *Dysmicoccus brevipes* Cockerell, causes the wilt disease.

The objective of this experiment was to test the efficacy of pretreatments against the incidence of pineapple mealybugs and attendant ants.

Experimental sites were selected in the Intermediate Low country (IL-I) zone with red-yellow podzolic soil of a sandy alluvial nature and in the Wet Low country (WL-3) zone with lateritic soil.

Replicated experimental plots, of pineapple, in a randomized complete block design were established in both locations. Pineapple plants were subject to pesticidal dip-treatments prior to planting. The treatments were: T1 - Untreated Control, T2- Farmers' use, T3 - Prothiofos (28 ml / 10 l water) and T4 - Profenofos (28 ml/10 l water). Pitfall traps were used to record ant/spider numbers. Mealybugs on the crop, were counted. Data was collected weekly, for a period of 2 years. Fruit yield was recorded.

Mealybugs were incident and built-up in numbers, only in the WL-3 location where the soil type is lateritic. The mealybugs were dominantly tended by the ant *Technomyrmex* nr. *Albipes* Mean mealybug numbers per week per treatment, were high in the farmer treated (228) and untreated control (256) plots, and low in Prothiofos treated (52) and Profenofos treated (22) plots, although statistical analysis of mealybug numbers and fruit yield using the SAS system showed that the difference was not significant.

Pretreatment of pineapple planting material is effective in reducing mealybug numbers and thereby protect the crop from wilt.