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## USE OF SOME NEWER INSECTICIDES FOR THE CONTROL OF CARDAMOM THIRPS, *SCIOTHRIPS CARDAMOMI* (RANK)

*Sciothrips cardamomi* (Rank) is a highly destructive pest of cardamom which is known to cause damage up to the extent of 80 to 90 per cent under conditions of severe infestations (Nambiar *et al*, 1975). Shedding of flowers, formation of corky encrustations on the capsules often resulting in malformation and shrivelling and poor development of seeds are caused due to infestation by this pest. Earlier recommendations for the control of cardamom thrips were the use of insecticides like nicotine sulphate, BHC and dieldrin (Nair, 1967). Later, application of quinalphos, PAP or dimethoate was recommended for its control (Nambiar *et al*, 1975). The present paper reports the findings of a replicated field trial conducted at the Cardamom Research Station, Pampadumpara during 1975-76.

Ten insecticides, each as 0.03 per cent emulsion were used for the trial. The experiment was conducted under randomised block design with ten replications. Eight rounds of sprayings were given at monthly interval, starting from April, 1975 using 500 ml of the spray fluid per plant. Sprayings was conducted in the forenoons. Care was taken to see that the panicles were thoroughly sprayed with the insecticide. Observations on the production of flowers were recorded daily from April to November, 1975. The percentage of thrips infested capsules was recorded at the time of each harvest and the data for different harvests (till March, 1976) were pooled. The mean percentage of fruit set as well as that of thrips infested capsules are presented in Table 1.

It may be seen from the table that fruit-set is not affected by the application of insecticides. As regards the effect of insecticidal applications on the damage caused by the pest to the capsules, the results indicate that all the insecticides are significantly effective in reducing the percentage of thrips infested capsules over the untreated control. Among the different insecticides, however, leptophos is the most effective followed in the descending order by quinalphos, monocrotophos, dimethoate, phenthoate and formothion, all of which are on par with leptophos. Phosalone and phosphamidon are less effective while fish oil soap and thiodometon are the least effective. Use of leptophos has recently been banned due to its health hazards. Hence the insecticides, quinalphos, monocrotophos, dimethoate, phenthoate and formothion can be recommended for the control of cardamom thrips.

സംഗ്രഹം

പാമ്പാടംപാറ ഏല ഗവേഷണകേന്ദ്രത്തിൽ ഏലപ്പേൻ നിവാരണത്തിന് വേണ്ടി നടത്തിയ പരീക്ഷണത്തിൽ ഫോർമോതയോൺ, കപിനാൽഫോസ്, മോണോക്രോട്ടോഫോസ്, ഫെൻതോയേറ്റ്, ഡൈമിത്തോയേറ്റ് എന്നീ കീടനാശിനികൾ ശതമാനം ലായനിയായി മാസത്തിൽ ഒരു തവണവീതം പ്രയോഗിച്ചാൽ ഏലപ്പേൻ കൊണ്ടുള്ള നാശനഷ്ടം പരിഹരിക്കാമെന്നു തെളിയുകയുണ്ടായി. കീടനാശിനി പ്രയോഗം കൊണ്ട് ഏലച്ചെടിയിൽ കായ് പിടിക്കുന്നതിനെ യാതൊരു വിധത്തിലും ബാധിക്കുന്നില്ലായെന്നും കാണുകയുണ്ടായി.

Table 1

Percentage of fruitset and capsules damaged by thrips in cardamom under different insecticidal treatment

Insecticides	Percentage of fruit set	Percentage of capsules damaged by thrips
Firmothion (Anthio)	18.0 (16.4)	19.4 (17.9)
Phosphamidon (Dimecron)	19.9 (26)	21.7 (24.9)
Quinalphos (Ekalux)	22.7 (27.1)	13.3 (20.9)
Thiodemeton (Ekatin)	27.9 (30.9)	38.6 (38.3)
Fish nil soap	27.0 (29.4)	24.8 (29.4)
Monocrotophos (Nuvacron)	29.2 (32.3)	14.8 (22.3)
Phenthoate Phendal	27.5 (30.8)	15.4 (22.5)
Leptophos Phosvel	34.5 (35.6)	9.6 (17.7)
Dimethoate (Rogor)	32.1 (33.9)	15.3 (22.6)
Phosalone (Zolone)	41.8 (35.8)	20.4 (23.9)
Control (No treatment)	20.3 (26.0)	60.9 (51.5)

C. D. at 5% level for fruit set - 8.89 For thrips infestation — 6.25  
 The figures in paranthesis as angular transformation of percentage.

## REFERENCES

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