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### EFFECT OF SOME INSECTICIDE GRANULES ON THE CONTROL OF THE BANANA APHID *PENTALONIA NIGRONERVOSA* Coq.

The banana aphid *Pentalonia nigronervosa* Coq. is the vector of the virus causing bunchy top disease in banana. Field studies were undertaken at the College of Agriculture, Vellayani to ascertain the usefulness of some insecticide granules in controlling the aphid on banana plants as such information was lacking. Details and results of these studies are presented below:

The insecticide granules used and their doses were as given in Table 1 and 2. Each insecticide was applied in two ways; at the base of the plant and within leaf axils. The first application was done when the plants were 2½ months old and the second application 90 days after the first. The plants were watered immediately after the application of the granules. The varieties of banana used in the first and second trials were *Nendran* and *Palayanthodan* respectively. The trials were laid out with a randomised block design with eleven treatment and 3 replications each. Each treatment had 5 plants. Results were assessed

Table I- Total counts of aphids on banana plants treated with different insecticide granules (Trial No. I)

Insecticide and conc. of granule	Mode of application	Number of aphids at different intervals (days) after application						
		75	90	105	120	135	150	165
Thiodemeton 5% (Solvirex)	Basal	..	..	1	1	..	..	..
	Leaf axil	..	..	2	..	..	..	..
Thiodemeton 5% (Disyston)	Basal	2	7	4	..	..	..	..
	Leaf axil	..	5	..	..	..	..	..
Lindane 1%	Basal	..	4	73	117	182	..	382
	Leaf axil	19	4	..	..	..	..	..
Dimethoate 1% (Roger)	Basal	..	..	..	..	..	..	..
	Leaf axil	1	..	2	..	..	..	1
Phorate 10% (Thimet)	Basal	1	..	2	..	..	..	1
	Leaf axil	28	1	..	..	..	..	..
Control (No insecticide)		1	19	67	317	3038	2665	598

**Table 2. Total number of aphids on banana plants treated with different insecticide granules (Trial No. 2)**

Insecticide and conc. of granule	Mode of application	Number of aphids at different intervals (days) after application					Remarks
		120	135	150	165	180	
Thiodemeton 5% (Solvirex)	Basal	..	..	..	..	..	No aphid population prior to 120 days
	Leaf axil	..	..	..	..	..	
Thiodemeton 5% (Disyston)	Basal	..	1	3	..	..	* * Dosage of granules:
	Leaf axil	..	1	..	..	..	
Lindane 1%	Basal	40	119	61	15	58	* * 25 g / plant for basal and 12.5 g / plant for leaf axil application
	Leaf axil	1	..	10	1	39	
Dimethoate 1% (Roger)	Basal	102	253	580	372	162	
	Leaf axil	1	5	30	52	725	
Phorate 1% (Thimet)	Basal	..	1	..	2	1	
	Leaf axil	..	..	..	..	..	
Control (No insecticide)		47	172	125	385	344	

Note:- 1. Names of Insecticides in brackets are of proprietary products.

2. 50 g of each granule applied per plant for basal application and 25 g. per plant for leaf application. 3. No aphid population prior to 75 days.

by counting all the aphids on the plants under each treatment at intervals of 15 days. Results are given in Tables 1 and 2. It may be seen that in the first trial using the insecticide granules, at 50 g. per plant for basal treatment and 25 g per plant for leaf axil treatment, all the insecticides were effective in keeping the aphid population under control. Lindane granule applied at the base was not as effective as that applied in the leaf axils. In the second trial using the granules at half the rates used in the first trial, thiodemeton and phorate granules were highly effective in controlling the aphid. Lindane granule applied within the leaf axil also was effective in keeping the aphid under control. Disyston applied in the leaf axils was found to be phytotoxic.

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