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**CONTROL OF BANANA RHIZOME WEEVIL (*COSMOPOLITES SORDIDUS*  
GERM) AND BANANA APHID (*PENTALONIANIGRONERVOSA*) (Coq.)  
BY THE USE OF GRANULAR SYSTEMIC INSECTICIDE**

The two main problems facing banana growers in Kerala are the 'Dead Heart' caused by Rhizome weevil (*Cosmopolites sordidus*) and 'Bunchy Top' disease transmitted by the Banana aphid (*Pentalonia nigronervosa*).

Early stage attack by the Rhizome weevil results in the cessation of growth and gradual death of the plant, while reduction in vigour and yield are the results of incidence of the insect in the advanced stage of growth of the crop.

In 'Bunchy Top' affected plants large number of short and narrow leaves are produced in clusters and further growth is arrested if the incidence is in the early stage of growth. When the virus infects a mature plant about to flower, it results in the production of a bunch with undersized fingers unfit for use as fruit. Nair (1970) recommended use of pest free suckers for planting and spraying 0.1% BH C or D D T for the control of Rhizome Weevil. Nair & Jose (1973) recommended the application of Solvirex or Thimet for the control of Banana aphid which is responsible for the spread of the 'Bunchy Top' disease.

A few banana growers in Trichur District have informed that Furadan-3 G granules, when applied to soil around the base reduced rhizome weevil infestation. With a view to varifying this, a trial was laid out during 1975-76 at the Banana and Pineapple Research Station, Kannara using the granular systemic insecticide Carbofuran (Furadan-3 G). Three doses viz. 25 g, 50 g and 75 g of granules per sucker were used for the trial. Suckers of Nendran variety were dipped in cowdung slurry and the required quantity of insecticide was spread uniformly on the rhizome. Twentyfive suckers were planted in each treatment.

Observation on the death of plants due to weevil infestation are presented in Table 1. The data shows that weevil infestation is considerably low in treatments using 75 g and 50 g of Furadan-3G granules when compared with that of control ie. no treatment.

**Table 1**

**Effect of three doses of carbofuran in reducing weevil infestation in banana**

Treatments	Death of plants due to weevil infestation	Percentage of infestation
75 g Furadan—3G/plant	1	4
50g do	1	4
25 g do	2	8
Control	11	44

Since the application of certain granular systemic insecticides has been reported to reduce the population of banana aphid and thereby the incidence of Bunchy Top disease, the effect of carbofuran on the incidence of banana aphid was also studied as a side observation. The number of aphids on the treated plants was recorded for three months (December, January and February), from the third month after planting, when suckers started putting forth leaves. The Observations are recorded in Table 2.

**Table i**

**Effect of three doses of carbofuran on banana aphid populations**

	Average number of aphids/plant during		
	December 75	January 76	February 76
75 g Furadan 3G/plant	0.08	0.29	5.3
50 g do	0.79	7.3	17.5
25 g do	0.73	41.5	16.2
Control	74.5	124.3	32

The aphid population is observed to decrease according to the increase in the dose of insecticide. But during the fifth month, the per plant population is comparatively high in the treated plants also. This may, probably, be due to the fall in the concentration of the insecticide in the plant sap.

yield was obtained from the plot ifl which 75 g of fura-  
dan—3G per plant was applied. However from the fteondmie point of View  
\$0 g of the pesticide per plant is found to fe« more profitable.

The result of this study indicate that the incidence of of 'Dead heart' caused by rhizome weevil, and the population of banana aphid can be reduced considerably by the application of carbofuran granules while planting banana suckers. Further studies in this line using other granular insecticides are in progress.

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### സംഗ്രഹം

തരിരൂപത്തിലുള്ളതും, അന്തർവ്യാപനശക്തിയുള്ളതുമായ 'കാർബോ ഫുറാൻ' (ഫുറ ഡാൻ-3G) എന്ന കീടനാശിനി, വിവിധ മാതൃകകളിൽ ഉപയോഗിച്ച് കണ്ണാറവാഴ ഗവേഷണ കേന്ദ്രത്തിൽ ഒരു പരീക്ഷണം നടത്തിനോക്കിയതിൽ, വാഴയ്ക്ക് മാണപ്പുഴവിന്റെ ആക്രമണം മൂലമുണ്ടാകുന്ന കൂമ്പടപ്പം, വാഴപ്പേനിന്റെ എണ്ണവും ഈ കീടനാശിനിയുടെ ഉപയോഗംമൂലം കുറയ്ക്കാമെന്നു കാണുകയുണ്ടായി. ഒരു കന്നിന് 50 ഗ്രാം എന്ന തോതിൽ ഫുറഡാൻ തരികൾ പുരട്ടി നട്ട വാഴകളിൽ നിന്നാണ് അധികലഭം ഉണ്ടായത്.

### REFERENCES

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