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**FIELD EVALUATION OF FUNGICIDES AGAINST *DIPLODIA*
DRY ROT OF GUAVA FRUITS**

Dry rot caused by *Diplodia natalensis* Evans is a serious pre-harvest disease of guava fruits (Rajagopalan and Wilson, 1972). In the present study, the comparative efficacy of five proprietary fungicides was tested by spraying on guava plants in the orchard of Agricultural College and Research Institute, Vellayani and the results obtained are presented here.

The fungicides were sprayed at 3000 ppm concentration by means of a knapsack sprayer. Four plants selected at random were sprayed with each fungicide at 15 days interval. The infected fruits and dead twigs were removed from two plants from each treatment before starting the fungicidal application, with a view to understand whether removal of the sources of inoculum would aid in better control of the disease. Observations were taken 15 days after the 6th spraying and the per cent efficiency of each treatment was calculated as per the following formula suggested by Chester 1950.

$$\text{Per cent efficiency} = \frac{\text{Per cent infection in control} - \text{Per cent infection in treatment}}{\text{Per cent infection in control}} \times 100$$

The results are summarised in the Table below:

Ziride was found to be the best fungicide for the control of *Diplodia* dry rot of guava fruits in the orchard. Statistical analysis of the data also revealed the superiority of ziride over the other fungicides tested. Removing the sources of inoculum at the commencement of spraying, however, did not have any added advantage in controlling the disease. Application of ziride at 15 days interval did not cause any phytotoxic effect on the flowers and fruits of guava plants.

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Table 1
Effect of spraying with fungicides on the incidence of *Diplodia*
dry rot of guava fruits

Treatment		Percentage of infected fruits		Per cent efficiency of treatment over	
		On the date of 1st spraying	15 days after 6th spraying	Control A	Control B
Difolatan	A	36.40	15.70	61.70	34.46
	B	0.00	15.20	62.92	34.20
Dithane M-45	A	40.50	22.50	45.10	4.25
	B	0.00	26.60	32.68	-13.20
Dithane Z-78	A	40.85	19.70	52.00	16.17
	B	0.00	12.10	70.48	48.50
Fytolan	A	20.97	21.20	48.30	9.78
	B	0.00	19.00	53.65	19.10
Ziride	A	42.85	4.25	91.80	81.40
	B	0.00	3.60	91.22	84.70
Control	A	19.50	41.00		
	B	0.00	23.50		

A - Infected fruits and twigs not removed

B - Infected fruits and twigs removed at the commencement of spraying

C. D. for comparison of treatments - 10.15. F test - significant.

Ziride	Dithane Z-78	Difolatan	Fytolan	Dithane M-45	Control
10.63	20.83	22.97	26.02	29.54	33.69

REFERENCES

- Chester, K. S. 1950 Plant disease losses • their appraisal and interpretation. *Plant Dis. Rept.* Suppl. 193.
- Rajagopalan, B. and Wilson, K. I. 1972 *Diplodia natalensis* Evans causing dry rot of guava fruits in South India *Plant Dis. Rept.* **56** : 323 - 324.

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