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CONTROL OF *TYLENCHORHYNCHUS MASHHOODI* SIDDIQI
ET BASIR IN VINEYARDS BY GRANULAR NEMATICIDES

by

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The present experiment was done in a vineyard infested with the sunt nematode, *Tylenchorhynchus mashhoodi* Siddiqi et Basir, since the losses caused by this nematode seem quite considerable and no work appears to have been carried out on its control in vineyards in India.

Material and methods

Twenty one vines var. Perlette were selected on the basis of their high level of nematode infestation, each vine serving as a subplot in an experiment with five nematicide treatments plus an untreated control, each replicated three times. An area 2 x 2 metres around each vine was treated with granular nematicides. Treatments were fensulfothion (Dasanit 5G) at 10 and 15 kg a.i./ha, aldicarb (Temik 10G) at 3 and 4 kg a.i./ha and carbofuran (Furadan 3G) at 1 and 1.5 kg a.i./ha. Irrigation was given afterwards.

To make the monthly population counts, three soil samples were taken from each subplot and mixed thoroughly. Out of this composite sample, 250 cc of soil were analysed for the nematode population by a modified Cobb's sieving and decanting method.

Results and conclusions

One month after application, fensulfothion at 15 kg a.i./ha resulted in a decrease in nematode population significantly greater than all other treatments, except for fensulfothion at 10 kg a.i./ha. Aldicarb at 3 kg a.i./ha and carbofuran at 1 kg a.i./ha did not differ significantly from the control.

Two months after the treatments, aldicarb at 4 kg a.i./ha gave the best control, although not significantly different from fensulfothion at 10 or 15 kg a.i./ha or carbofuran at 1 or 1.5 kg a.i./ha.

Four months after the application of the granules when the experiment was terminated, all the treatments except fensulfothion at 10 kg a.i./ha were equally effective and significantly better than the control.

Table I - Control of *Tylenchorhynchus mashhoodi* in grapevines with granular nematicides.

Treatment	Dosage kg a.i./ha	Pretreatment Population ($\sqrt{n+1}$) June, 1973	Post treatment Population ($\sqrt{n+1}$)		
			July	August	October
Fensulfothion	10	28.88	12.89	15.15	11.89
Fensulfothion	15	25.31	7.97	10.42	4.18
Aldicarb	3	26.22	23.67	19.32	8.23
Aldicarb	4	25.11	15.69	9.66	10.33
Carbofuran	1	29.22	24.67	15.99	11.44
Carbofuran	1.5	25.76	14.75	10.09	11.00
Control	—	23.41	23.90	21.72	20.30
C.D. (P = 0.05)		NS	6.25	7.81	8.60

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