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**PRATYLENCHUS COFFEAЕ, THE ROOT-LESION NEMATODE IN
GROUNDNUT AND ITS CONTROL BY GRANULAR NEMATICIDES**

by

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During the summer of 1973, many reports were received from the Punjab state about the general unthriftiness of the groundnut crop (*Arachis hypogea* L.). The plants presented a sickly appearance coupled with patchy stunted growth. Analysis of the soil and plant roots revealed the presence of a large number of the lesion nematode, *Pratylenchus coffeae* (Zimmermann) T. Goodey already previously reported from the groundnut fields of Punjab by Sethi and Swarup (1971). Attempts, therefore, were made to control this nematode by means of granular nematicides.

Material and methods

The experiment was laid out in a field with a thirty day old crop in the form of a randomized block with four replicates of each treatment. The treatments with granular nematicides were fensulfotion (Dasanit 5G) at 2 and 4 kg a.i./ha, aldicarb (Tèmik 10G) at 4 kg a.i./ha and dazomet (Basamid G) at 4 kg a.i./ha; there was also an untreated check. Each treatment, plots measured 3 x 7 metres, was replicated four times. Nematode counts were made from 250 cc of the composite sample of soil obtained by mixing soil from each replicate before and after treatment. The nematodes were extracted by a modified Cobb's sieving and decanting method.

Table I - Control of *Pratylenchus coffeae* through granular nematicides.

Treatments	Dosage a. i. /ha	Pretreatment population ($\sqrt{n+1}$)	Post treatment population ($\sqrt{n+1}$)
Fensulfothion	2 Kg	25.47	17.88
Fensulfothion	4 Kg	28.67	8.08
Aldicarb	4 Kg	28.53	8.16
Dazomet	4 Kg	26.57	13.27
Control	—	28.21	27.02
C.D. (P = 0.05)		NS	3.05

Results and conclusions

The results show that there were no significant differences in the pretreatment populations of the nematode (Table I). However, one month after the application of the granules, the nematode counts showed that all the nematicide treatments were effective in reducing the nematode population with respect to control. Fensulfothion or aldicarb at 4 kg a.i./ha were equally and most effective in reducing the numbers of the nematodes. Dazomet 4 kg a.i./ha was better than fensulfothion at 2 kg a.i./ha but was phytotoxic to the crop. Fensulfothion at 2 kg a.i./ha was the least effective of all the treatments.

Fensulfothion (Dasanit 5G) at 20 lbs./acre has been reported to give satisfactory control of *Pratylenchus* spp. in groundnut in USA and greatly increased the yields (Anon., 1972). In Punjab, our experiment indicates that satisfactory control can be obtained with applications of fensulfothion or aldicarb at 4 kg a.i./ha and probably lower dosage rates also.

LITERATURE CITED

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Accepted for publication on 20 May 1976.