exposed vulval and anal outlets of the sedentary female. However, the mode of action of these compounds on nematodes still remains in question.

Our results confirmed those of Evans (1984) and Veech (1977, 1978), indicating that both Polyoxine D and Dimilin, have the potential to serve as target-oriented nematicides; this concept should be further elaborated.

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REFERENCES


ESTHER MOLTLMANN): A method for direct observation of plant parasitic nematodes in the rhizosphere.

The infective stages of plant parasitic nematodes probably do not find host roots by chance, but are attracted to them by exudates. To prove this assumption and to obtain more information about the mechanism of nematode orientation and the properties of the attractants, the behaviour of the nematodes in

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the rhizosphere must be observed. Agar has been generally used as a medium for such investigations. Its structure, however, is very different from that of soil, and water drops form around the root tips, trapping the nematodes and preventing further observations.

Sephadex (G 150 medium, Pharmacia, Uppsala, Sweden) is a transparent medium with a structure similar to that of soil that allows direct microscopic observation of the nematode activity in the rhizosphere. The material contains no charged groups in contrast to agar and it can be used to establish uniform diffusion gradients. Therefore it has been used to study the behaviour of *Caenorhabditis elegans* (Ward, 1973; Dusenbery, 1983). The diameter of the beads (150-250 μm) is similar to sand grains which are optimum for nematode mobility (Wallace, 1958).

The following procedure was designed for observation of *Heterodera avenae* juveniles near cereal roots: (1) Sephadex (G 150 medium) is allowed to swell in tap water for at least 72 hours, (2) the suspension is poured into Petri dishes (diameter 5 or 8 cm) in a one to two mm thick layer, (3) the suspension is dried by heating the dishes until it does not flow any more, (4) germinated seedlings