

- problèmes de l'espèce dans le règne animal », tome III. *Mém. Soc. Zool. France.*, n° 40 : 427-452.
- MAMIYA, Y. & ENDA, N. (1979). *Bursaphelenchus mucronatus* n. sp. (Nematoda : Aphelenchoididae) from pine wood and its biology and pathogenicity to pine trees. *Nematologica*, 25 : 353-361.
- NICKLE, W. R., GOLDEN, A. M., MAMIYA, Y. & WERGIN, W. P. (1981). On the taxonomy and morphology of the pine wood nematode, *Bursaphelenchus xylophilus* (Steiner & Bührer, 1934) Nickle, 1970. *J. Nematol.*, 13 : 385-292.
- ORSTEIN, L. & DAVIS, B. J. (1964). Disc electrophoresis. *Annls N. Y. Acad. Sci.*, 121 : 321-349, 404-127.
- WINGFIELD, M. J., BLANCHETTE, A. & KONDO, E. (1983). Comparison of the pine wood nematode, *Bursaphelenchus xylophilus*, from pine and balsam fir. *Euro. J. Forest Pathol.*, 13, 360-373.

Accepté pour publication le 17 décembre 1984.

A MICROPLOT METHOD FOR RECOVERY OF  
ENTIRE PLANT ROOT SYSTEMS AND THEIR ASSOCIATED ENDOPARASITIC  
AND SEMI-ENDOPARASITIC NEMATODES (1)

Edward P. CASWELL\*, Charles E. NELSEN\*\* and Ivan J. THOMASON\*

Microplots are enclosures that allow plant growth in limited volumes of field soil which is physically isolated

Bruner, 1927). This is important because the soil bed into which the microplots are placed is often fumigated

on root growth and temporal modifications of root penetration through the soil column as affected by nematodes. In addition, root recovery leaves the majority

*penetrans* (Cobb) successfully (Martin, Riedel & Rowe, 1982).

The polyethylene bag is filled with a small amount of

