A B S T R A C T

The effects of the nematicide Nemagon - 1,2-dibromo-3-chloropropane on soil fertility, and on growth of banana plants *(Musa sapientum L. and Musa acuminata)* and on tomato plants *(Lycopersicon esculentum Mill.)*, were investigated. Effects on soil fertility were examined through studies of different rates* of the chemical on some soil nutrients, soil pH, and on soil microorganisms. The effects on plant growth were investigated through studies of different rates of the chemical on the concentrations and uptake of nutrients in the plants, and also on plant heights, plant weights, internode lengths and leaf areas.

The results showed that the use of Nemagon resulted in increased availability of P, and exchangeable K. There was no significant effect on soil pH. In treated soils, there was an increase in numbers of bacteria and microbial activity as reflected by oxygen uptake studies.

Low rates of Nemagon increased the concentrations of some nutrients in the plants while high rates of Nemagon sometimes showed the opposite effect. Nutrient uptake was also higher in plants treated with low rates of the chemical, while high rates caused significant reduction in the uptake of nutrients. The effect on plant growth factors was similar with low rates of Nemagon, producing increases in growth over untreated plants and high rates causing definite decreases in growth.

* See Glossary p. 236