

**ABSTRACT OF PAPER PRESENTED AT THE VIII ANNUAL MEETING OF
OTAN IN CASTRIES, ST. LUCIA, AUGUST 4-8, 1975**
**RESUMEN DE TRABAJO PRESENTADO EN LA VIII REUNION ANUAL
DE ONTA EN CASTRIES, ST. LUCIA, 4-8 DE AGOSTO, 1975**

USEFULNESS OF PLOTS WITHOUT NEMATODES IN PINEAPPLE EXPERIMENTS [LA UTILIDAD DE PARCELAS EXPERIMENTALES SIN NEMATODOS EN EXPERIMENTOS DE PIÑA]. R. Guerout, I.F.A.C., B.P. 1.740, Abidjan, Ivory Coast - - For many years, the effect of nematocidal treatments has been tested through comparisons between treated and untreated plots. Originally, this was considered enough but complete nematode control was never obtained with DBCP, the only nematocide available. At that time, it was possible to estimate yield increase for each treatment but it was not possible to determine whether greater production would result from better nematode control, and most important, if that would be of interest to the grower. It has been possible to obtain rather clean experimental plots by using phenamiphos in combination with DBCP. This was achieved by preplant applications of 30 liters of 75% DBCP/ha and 0.25 g ai of phenamiphos/plant 0.5, 4, 8, and 12 months after planting. This control program produced more than 97% mortality of *Pratylenchus brachyurus* and *Helicotylenchus* sp. without phytotoxic effects, provided that the phenamiphos solution was not applied to the center of the plant. With this technique it was possible to estimate the increase in yields resulting from the treatment and its relation to the optimum yield. For example, with the recommended treatment of 30 liters of 75% DBCP/ha preplant and 15 liters of 75% DBCP/ha 4 mos later, the average mortality obtained during the 10 mos between planting and forcing was 88%. It was 99.8% in the "uninfested plots." During the 1.5 mos of full crop (from blooming to harvest) these percentages were 58 and 98, respectively. Despite these differences in control of *Pratylenchus brachyurus* in the roots, average fruit weights were: Untreated: 1,207g; DBCP : 1,634g; uninfested : 1,674g.

These data indicate that the recommended treatment cannot be improved further. Comparison of pineapple growth in untreated and uninfested plots can also be used to evaluate varietal behavior to phytoparasitic nematode attack. In such research: (a) the higher the population of nematodes in roots or soil, the better the variety acts as a host-plant for the nematodes, and (b) the greater the growth reduction of the untreated plant, the higher its susceptibility to the nematode species. Since a similar population may have different effects on two varieties, (a) and (b) have to be taken into consideration in interpreting results. This has its use when testing introduced varieties before releasing them in a country, or for a selection program. The technique is applicable not only for pineapple but also for other crops as well.

OTHER CONTRIBUTIONS — — — OTRAS CONTRIBUCIONES

IDENTIFICACION DE ESPECIES DEL NEMATODO DEL QUISTE DE LA PAPA EN POBLACIONES ANDINAS SEGUN LA SECUENCIA DE COLOR DE LA HEMBRA [SPECIES IDENTIFICATION OF POTATO CYST NEMATODES IN ANDEAN POPULATIONS ACCORDING TO THE FEMALE COLOR SEQUENCE]. M. Canto Sáenz y M. Mayer de Scurrah; U.N.A., La Molina, Dpto. de Sanidad Vegetal, Apartado 456, Lima, Perú, y Centro Internacional de la Papa, Apartado 5969, Lima, Perú.