Short Communication

Pakistan J. Sci. Ind. Res., Vol. 22, No. 4, Aug 1979

NEMATODES PROBLEM OF BANANA IN SIND

M. Saeed, H.A. Khan, Anjum Saeed and Fatima Qamar

PCSIR Laboratories, Karachi 39

(Received March 19, 1979)

The present survey was a step to work out the nematode problem of banana which ranks second among the fruit crops grown is Sind. At the spot observations, laboratory analysis of soil samples and roots copuled with the inference drawn by emperical experiences of the growers have indicated that the nematodes are the major pests of banana plantation. Farmers are, however, not aware about these microscopic organisms. No Government Department or private agency is providing any assistance to the farmers regarding nematode control. It is estimated that the production of banana may be increased by 5% if the proper method of nematodes control is applied. l. A farmer's net increased income of Rs. 1800/acre/year has been envisaged and a total national saving of Rs. 6 crores may be anticipated, provided whole of the area, under banana cultivation (31000 acres) is treated with nematicide at an estimated cost of Rs.600000.00.

The worst effected areas include Hyderabad, Thatta, Mirpurkhas districts and Talukas of Tando Mohammad Khan, Tando Allayar, Ghorabari and Diplo. Several plant parasitic nematodes with high pathogenic capability have been recovered from the soil and roots of banana. They include Pratylenchus zeae, Meloidogyne javanica, M. incognita, Helicotylenchus dihystera, H. multicinctus, Hoplolaimus columbus, H. indicus, H. pararobustus, Hemicriconemoides mangiferae and Paratylenchus sp. Radopholus similis - a most important pathogenic nematode was, however, found only in low frequency. Cultivation of banana in Pakistan started only after independence of the country. As the climate of the lower Sind suits, banana soon spread in this area. There are varying figures about the acrage production of banana in Sind. According to Naziruddine (1978) the production estimated to 30000 bunches/acre. Rizvi (1978) added that the production has increased up to 50,000 and statistics collected by us from various district head quaters gave a figure of 27, 120 bunches/acre. Almost all of this is cultivated in non frost districts of Sind. Since per unit income to our farmers from banana is highest among all the crops (Naziruddin, 1976), it attracts the attention of a large number of growers. However, the crops are severealy infested with nematodes and pose a real danger to it. Closure of sugar beet industry in Germany and in other parts of the Europe in the ninteenth century is a glaring example of the potential damage caused by the nematodes. In order to increase our agricultural production it is essential that proper measures to protect the crops against these pests be taken, for example, soil treatment, proper checking of soil and corms before treatment, use of nematode free corms, use of proper manures and removal of weeds. Besides this other methods are necessary which are followed in detail in a report to be published separately.