

mer tratamiento. A los 2 y a los 6 meses después de aplicar el nematocida las plantas tratadas mostraron un crecimiento más vigoroso que las plantas testigo. En las plantas "madres" y en las plantas "hijas" tratadas hubo una mayor proporción de racimos que en las plantas no tratadas y estos racimos tenían mayor peso. En las plantas no tratadas hubo un mayor número de plantas caídas en relación con las plantas tratadas en ambas generaciones. La dosis más alta dió los mejores resultados. El control de los nematodos fitoparásitos es necesario para la exitosa producción de plátanos.

SOME OBSERVATIONS ON THE RED-RING NEMATODE (*RHADINAPHELENCHUS COCOPHILUS* COBB) IN THE STATES OF GUERRERO AND OAXACA, MEXICO [ALGUNAS OBSERVACIONES EN EL NEMATODO DEL ANILLO ROJO (*RHADINAPHELENCHUS COCOPHILUS* COBB) EN LOS ESTADOS DE GUERRERO Y OAXACA, MEXICO] N. Marban Mendoza. Instituto de Biología, UNAM, México.

Red ring disease of coconut palm (*Cocos nucifera*) caused by *Rhadinaphelenchus cocophilus* is a serious problem in Mexico which has been studied mostly in the States of Veracruz, Tabasco and Colima. Very few studies have been carried out in the Guerrero-Oaxaca region in spite of the fact Guerrero is the largest producer of copra in Mexico. Approximately 60,000 hectares of coconut palm are cultivated in Guerrero and 3,000 - 4,000 in Oaxaca.

The present study was undertaken on the red ring disease problem in these two states in 1971-72. The first study took place between November and December, 1971, and January and February, 1972, at the following localities along the region known as "Costa Grande" in the state of Guerrero: Coyuca de Benitez, Tecpan de Galeana, and Petatlan (39, 104 and 200 Kms northwest of Acapulco). At each locality three areas of approximately 10 Ha each and of equal agronomic characteristics were selected. Four palms all less than 12 years old were randomly selected from every hectare in each 10-hectare sample area. Thus 120 palms were studied in each of the 3 geographical localities. Both stems and roots of the selected palms were examined for presence or absence of the red ring nematode. Only five palms in the locality of Tecpan de Galeana were found to be infected.

A wider sampling was made in Feb-Mar, 1972, throughout different plantations in the same three localities. This time only those palms were studied which showed retring disease symptoms and/or presence of the palm weevil, *Rhynchophorus palmarum* (L.), vector of *R. cocophilus*. From this sampling the following results were obtained: Coyuca de Benitez 3 isolated foci of red-ring nematode infestations and 2 palms infested with palm weevils; Tecpan de Galeana, 4 foci of red-ring nematode and two cases of palm weevils; Petatlan, 2 foci of red-ring nematode and two cases of weevils. In every case there was only a low incidence of the disease, i.e. 1-3 palms in each focus.

In the locality of Tecpan de Galeana during the month of November, 1971 (dry season), field collections of the palm weevil and *Rhina barbirrostris* (L.) took place by the use of light traps with such attractants as a piece of pineapple, orange, or banana in various stages of ripeness and also fermented pieces of palm stems. A total of 32 weevils were collected: 20 being *R. barbirrostris* and 12 being *R. palmarum*.

None of the specimens of *R. barbirrostris* were found to be contaminated either internally or externally by the red-ring nematode. Eight of the twelve palm weevils were found contaminated internally by an average of 52 red ring nematodes per specimen. In one specimen nematodes were found externally.

The second study took place between July and August, 1972 (rainy season), in the localities of San Marcos and Marquelia (72 and 135 Kms southeast of Acapulco) along the region known as "Costa Chica" in the state of Guerrero and in Pinotepa Nacional (245 Kms southeast of Acapulco) in the neighboring state of Oaxaca. At this latter locality the study took place at the Colonia Ruiz Cortines plantation about 28 Kms southwest of Pinotepa Nacional.

After going through different palm orchards in each locality looking for diseased palms, five isolated foci of low incidence were found in San Marcos and four isolated foci of low incidence

at Marquelia. Two palms at each of these localities were also found infested with the palm weevil.

In the Colonia Ruiz Cortines plantation two foci of high incidence were found. One focus contained 26 palms and the other 21. Both foci, separated by a distance of about 500 m, had the red-ring disease in various stages of development. Eleven more foci of 1-6 palms were found dispersed within an area of some 10 Ha at this locality.

From these results it is clear: 1) There is an important infestation of red-ring disease in this region not reported previously. 2) There is also a higher incidence of red-ring disease in Oaxaca than Guerrero. This incidence may be due to the fact that the cultivation of coconut palm in Guerrero is an older industry started 50-80 years ago and is a region where more primitive cultural methods are still practiced. Coconut palms once planted were allowed to grow indefinitely and most plantations have older trees which are not susceptible to attack by red-ring nematode. In the locality studied in Oaxaca there is a high density of young palms which is a reflection of the more recent increase in cultivation of coconut palm in that region. Finally, further studies must be done in order to know more about this problem.

EXPLORACION NEMATOLOGICA EN EL CULTIVO DE ALFALFA (*MEDICAGO SATIVA* L.) EN EL ESTADO DE MEXICO [NEMATODE SURVEY ON ALFALFA (*MEDICAGO SATIVA* L.) IN THE STATE OF MEXICO]. M. Pérez Mangas y R. R. Montessoro. Colegio de Postgraduados, Escuela Nacional de Agricultura, Chapingo; Instituto Nacional de Investigaciones Agrícolas, Chapingo, México.

Dada la importancia fundamental que tiene el cultivo de alfalfa en el Estado de México, se procedió a realizar un estudio nematológico para determinar las especies de nematodos que estaban asociados con el cultivo. Se llevó a cabo este estudio suponiendo que algunos géneros de nematodos fitoparásitos fueron en parte responsables de la baja en la duración del cultivo, de 7 años a 2 o 3 como máximo. El muestreo consistió en tomar muestras de suelo y parte del sistema radicular de las plantas que presentaban alguna anomalía. Dicho muestreo se realizó tomando como guía las principales vías de comunicación, a una intensidad de muestreo de aproximadamente 0.5 o/o con un total de 95 muestras en 20,000 Has de cultivo. Después de analizadas dichas muestras por el método tamizado-embudos Baermann, se encontraron los siguientes géneros: *Tylenchorhynchus*, *Boleodorus*, *Aphelenchus*, *Pratylenchus*, *Tylenchus*, *Helicotylenchus*, *Xiphinema*, *Hoplolaimus*, *Psilenchus*, *Aphelenchoides*, *Ditylenchus* y larvas de *Meloidogyne*. Además, se hizo el estudio taxonómico del género *Pratylenchus*, encontrándose las siguientes especies: *P. zaeae*, *P. minyus*, *P. penetrans*, *P. thornei*, *P. pratensis*, *P. flakckensis*, *P. scribneri*, *P. convallariae*, *P. pinguicaudatus*, y dos más que no fue posible identificar.

PLANT PARASITIC NEMATODES IN THE SAO FRANCISCO VALLEY, PERNAMBUCO BRAZIL [NEMATODOS FITOPARASITOS EN EL VALLE DE SAO FRANCISCO, PERNAMBUCO, BRASIL]. R. D. Sharma. Centro de Pesquisas do Cacau, Itabuna, Bahia, Brazil.

ABSTRACT

Thirty-two soil and root samples from different cultivated plants were collected from two locations in Sao Francisco Valley, Pernambuco, Brazil. *Meloidogyne incognita*, *Tylenchorhynchus phaseoli*, *Helicotylenchus* spp. and *Xiphinema* sp. were the most frequently encountered of the 12 genera of plant parasites identified. This is considered to be the first report of its kind from this area.

INTRODUCTION

On the request of SUVALE - Superintendencia do Vale do Sao Francisco, Pernambuco, a preliminary nematode survey of Juazeiro Velho Estate and Experimental Station, Bebedouro was done in the second week of May, 1973.