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gated in this study with soil derived from the Mississippi River alluvium. Each field was mapped first with a Veris® 3100 Soil EC Mapping System and sampled for nematodes using a 0.4 ha grid system based on the predominant SEC reading in that grid. The field closest to the river had the least variability, and the majority of the field (27.4 ha) had SEC readings of less than 30 mS/m. This field was divided into seven zones based on SEC levels, and root-knot nematode was found above threshold levels (250 nematodes per $500cm^3$ of soil) across the majority of samples in all zones. Nematode management zones could not be delineated in this field. In the field farthest away from the river (32.2 ha), 10 zones based on SEC reading (3.4-104.6 mS/m) were established. Only four of these zones (SEC readings <33.8 mS/m) had root-knot nematodes that were primarily above the threshold level. This field could be divided into nematode management zones where a high percentage of the field would not have to be treated with a nematicide. SEC may be more useful in defining nematode management zones in soils which are highly variable rather than soils with a similar soil texture.

BIOLOGICAL EFFICACY OF *POCHONIA CHLAMYDOSPORIA* (GODDARD) ZARE, EVANS & GAMS FOR THE CONTROL OF *NACOBBUS ABERRANS* IN TOMATO [EFECTIVIDAD BIOLÓGICA DE *POCHONIA CHLAMYDOSPORIA* (GODDARD) ZARE, EVANS & GAMS PARA EL CONTROL DE *NACOBBUS ABERRANS* EN TOMATE]. **I. Pérez-Rodríguez[1], F. Franco-Navarro[2], I. Cid del Prado-Vera[2], V. Santiago-Santiago[1] and A. Montero-Pineda[1], [1]Instituto Tecnológico agropecuario No. 29, Xocoyucan, Tlaxcala, Mexico and [2]IFIT-Colegio de Postgraduados, Montecillo, Mexico State, Mexico 56230.**—Five isolates of *Pochonia chlamydosporia* (MPc1-MPc5), which were isolated from fields infested with *Nacobbus aberrans*, were tested as control agent of the false root-knot nematode in tomato cv. Río Grande under greenhouse conditions. This experiment was made up of 12 treatments, each one with four replications or plots (each plot with two tomato plants). There were positive and negative controls, and the rest of the treatments consisted of two doses (7,500 and 15,000 chlamydospores · g^{-1} of soil) of the different *P. chlamydosporia* isolates. These isolates, cultured on sterilised rice grains, were applied according each dose in a mixture with vermicompost. Soil used for the experiment was collected from a field naturally infested in Tecamachalco, Puebla, Mexico by *N. aberrans.* Fifty days after planting, different variables for plant, nematode and fungus were evaluated. According to results, plants treated with isolate MPc-5 high dose, showed the highest biomass, the lowest damage on roots and the lowest quantity of nematodes in soil and roots (Tukey, _ = 0.05). Isolate MPc-5 and isolate McP-1 could be reisolated from soil and roots after experiments; both isolates were present in eggs masses on petri dishes with water-agar. Results with isolate MPc-5 allow it to be considered as a potential agent for the biological control of the false root-knot nematode. (Project: MiCoSPA. ICA4-CT-2002-10044).

REACTION OF BANANA CLONES (*MUSA* SPP.) TO *MELOIDOGYNE INCOGNITA* RACE 4 [REACCION DE CLONES DE BANANO (*MUSA* SPP.) CONTRA *MELOIDOGYNE INCOGNITA* RACE 4]. **A. C. B. V. Pinto[1], M. B. da Fonsêca Júnior,[2] R. C. V. Tenente[3], O. A. Carrijo[4] and S. P. da Silva Neto[5], [1]CNPq Fellowship for under graduation student, UNICEUB, SEPN 707/909 Campus, Brasília, DF, Brazil, [2]CNPq Fellowship for under graduation student, Universidade Católica de Brasília, QS 07-Lote 01 (70.022-900), Taguatinga, DF, Brasil, [3]EMBRAPA/CENARGEN, CP 2372 Brasilia/DF Brazil, [4]CNPH/EMBRAPA, CP 0218 Brasilia/DF Brazil and [5]CAMPO, SEPN Q. 516, Conj. A nº 49, Brasilia DF/Brazil.**—*Meloidogyne* spp. are among of the most important nematode pathogens of banana in different areas in Brazil, but have received insufficient attention by researchers there. The damage caused by these root-knot nematodes (RKN) is dependent on population size, fertility and soil type. Heavily infected banana plants suffer height reduction, weight loss, delayed maturation and even death. Our aim in this study was to describe the reactions of seven different banana clones to *Meloidogyne incognita* race 4, under glasshouse conditions. The tested clones were developed by a Breeding Program of Embrapa Cassava and Tropical Fruits Center and Agriculture Promotion Company. Ten days after micropropagated offspring were transplant to containers of sterilised soil + sand + manure, they were inoculated with 15,000 nematode eggs. The experimental design was completely randomised with four replicates. Nematode reproduction was evaluated 120 days after inoculation by quantifying numbers of nematodes and eggs in roots and soil. The three clones Caipira, Grande Naine, and FHIA-18 (the susceptible standard) were highly susceptible to the nematode, allowing greater multiplication of *M. incognita* race 4 than the susceptible clones, Nanicão and Prata Zulu 57. Two clones, Maçã and Prata Anã, were slightly resistant, but none of the seven clones appeared moderately or completely resistant. Root and shoot weights of these clones were not significantly affected by RKN in this study.

IMPACT OF THREE WEED SPECIES ON REPRODUCTION OF *ROTYLENCHULUS RENIFORMIS* ON COTTON AND SOYBEAN [IMPACTO DE TRES ESPECIES DE MALEZA EN LA REPRODUCCION DE *ROTYLENCHULUS RENIFORMIS* EN ALGODON Y SOYA]. **M. J. Pontif and E. C. McGawley, LSU AgCenter, Dept. of Plant Pathology and Crop Physiology, Baton Rouge, LA 70803, U.S.A.**—From 1999-2002, microplot studies were conducted to determine the effects of cotton (LA. 887), soybean (Pioneer 96B21), and three endemic weed species, [morning glory-MG (*Ipomoea purpurea*), hemp sesbania-HS (*Sesbania exaltata*) and Johnson grass-JG (*Sorghum halepense*)], on reproduction of the reniform nematode, *Rotylenchulus reniformis*. Treatments were arranged as a RCB design with seven replications of seven treatments: 1) cotton or soybean alone; 2) MG alone; 3) JG alone; 4) HS alone; 5) cotton or soybean co-cultured with MG; 6) cotton or soybean co-cultured with JG; and 7) cotton or soybean co-cultured with HS. All seed were sown in the greenhouse in flats of fumigated soil and seedlings were transplanted after 2 weeks into microplots containing 15 kg of fumigated soil. Microplots were established in May-June and infested 2 weeks later with a suspension containing reniform nematode juveniles (cotton 1300-2000/microplot, soybean 1300-3000/microplot). All tests were harvested 60 days after inoculation. At harvest, plant material was dried and weighed, and a soil sample was collected from each microplot. Nematodes were than extracted from a 150 g subsample of soil using a sugar flotation/centrifugation procedure. Numbers of juveniles per microplot and reproductive values (R where $R = Pf/Pi$ and Pf and Pi are final and initial inoculum levels, respectively) were calculated and data were analyzed using ANOVA and Tukey's HSD test. Over three trials (1998, 1999, 2000) the co-culture of cotton with any of the three weed species suppressed reproduction of reniform nematode significantly. Reniform nematode reproductive values for cotton alone averaged 63.2 at harvest, while those for MG, HS, and JG when alone averaged 50.6, 25.4 and 18.0, respectively at harvest. Reproductive values for the cotton-MG combination averaged 44.2 at harvest. Those for the cotton-HS combination averaged 30.1, and the cotton-JG combination averaged 25.0. Reniform reproduction data for soybean over 2001 and 2002 followed a trend similar to that observed for cotton. Reproductive values for soybean alone averaged 76.9 at harvest, while those for MG, HS, and JG when alone averaged 54.9, 35.7, and 20.8, respectively at harvest. Reproductive values for the soybean-MG combination averaged 103.2 at harvest. Those for the soybean-HS combination averaged 59.5, and the soybean-JG combination averaged 36.8. Suppression of reniform nematode could have resulted either from crowding due to the increased amount of biomass present in microplots containing two plant species or from the secretion of allelopathic compounds by weed roots. Studies are currently in progress to test the allelopathy hypothesis.

RESPONSES OF DIFFERENT *MUSA* AAA ACCESSIONS FROM THE CAVENDISH SUBGROUP TO NEMATODES [SUCEPTIBILIDAD DE VARIOS GENOTYPOS DE *MUSA* AAA DEL SUB-GRUPO CAVENDISH A NEMATODOS]. **P. Quénéhervé[1], Ph. Marie[2], M. Folliot[2] and S. Marie-Luce[1], [1]Pôle de Recherche Agronomique de la Martinique, IRD/CIRAD, B.P. 8006, 97259, Fort-de-France Cedex, Martinique and [2]CIRAD, TA 50/PS4, Avenue Agropolis, 34398, Montpellier Cedex 5, France.**—Bananas cultivated for export in the Caribbean are Cavendish cultivars which are all well known as very susceptible to burrowing nematodes (*Radopholus similis*), lesion nematodes (*Pratylenchus coffeae*) and root-knot nematodes (*Meloidogyne* spp.). As a result of a selection program from the agronomists and the geneticists from CIRAD, 12 different accessions of Musa AAA Grande Naine, issued from mass field selection, cloned and propagated in tissue culture were compared to five known local commer-