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ISOLATION, IDENTIFICATION AND CHARACTERIZATION OF EGG-PARASITIZING FUNGI FROM GUAVA PLANTS INFESTED WITH *MELOIDOGYNE MAYAGUENSIS* IN BRAZIL. [AISLAMIENTO, IDENTIFICACIÓN Y CARACTERIZACIÓN DE HONGOS PARÁSITOS DE HUEVOS PROVENIENTES DE PLANTAS DE GUAVA INFESTADAS POR *MELOIDOGYNE MAYAGUENSIS* EN BRASIL]. J. Arevalo¹, L. Hidalgo¹, I. Martins², J.F. Souza², J.M.C. Castro³, R.M.D.G. Carneiro² & M.S. Tigano². ¹Centro Nacional de Sanidad Agropecuaria, San José de las Lajas, Apartado 10, La Habana, Cuba, ²Embrapa Recursos Genéticos e Biotecnología, Brasília - DF, Brazil, ³Embrapa Semi-Árido, Petrolina - PE, Brazil. lhidalgo@censa.edu.cu - Recently, *Meloidogyne mayaguensis* was detected causing serious economic damage in a commercial plantation of guava in Brazil. Considering the possibility to use biological control agents in combination with another biological tactic to keep the population of this pest below the economic level, infested root samples were taken in a commercial guava plantation in northeast Brazil with the objective to isolate egg parasitic fungi. Pure monospore cultures of different isolates were obtained and identified by cultural and morphological characteristics. Mycelia growth and sporulation in artificial media were evaluated at four different temperatures (20, 24, 28, 32°C), and mass production of chlamydospores/conidia was determined through a solid state fermentation in cereal grain bags. The fungi *Pochonia chlamydosporia* var. *chlamydosporia*, *P. chlamydosporia* var. *catenulata*, *Paecilomyces lilacinus* and *Lecanicillium psalliotae* were identified and deposited in the Entomopathogenic Fungi Culture Collection in Genetic Resources and Biotechnology, Embrapa. The *P. lilacinus* isolate was not considered in the characterization studies. The optimal growth and chlamydospore production for *Pochonia chlamydosporia* isolates were in the range of 24 and 28°C, whereas *L. psalliotae* grew better at extreme temperatures than *P. chlamydosporia* isolates, but its conidia production was significantly affected when temperature increased. At 19 days of solid state fermentation, the *P. chlamydosporia* isolates produced between $3,5$ and $5,2 \times 10^6$ chlamydospores per gram colonized substrate, and *L. psalliotae* produced $8,65 \times 10^8$ conidia per gram colonized substrate. The potential of these isolates as biological control agents of *M. mayaguensis* are discussed. This project has been funded by CNPq-Brazil (480001/2005-07).

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SOYBEAN NEMATODES IN BRAZIL: OLD AND NEW CHALLENGES. [NEMATODOS EN SOJA EN BRASIL: VIEJOS Y NUEVOS DESAFÍOS]. G.L. Asmus. Embrapa Western Agriculture. P.O. Box 661, 79804-970, Dourados (MS) Brazil. asmus@cpao.embrapa.br - Nematodes are important pathogens in Brazilian soybean plantations. The root-knot nematodes (*Meloidogyne javanica* and *M. incognita*) have been the ones most frequently found in Brazil since soybean started to be cultivated until the early 1990s. The occurrence of *Meloidogyne javanica* is more frequently noticed while *M. incognita* usually occurs in areas previously planted with coffee or cotton. The main strategies for controlling these two species are the usage of resistant cultivars as well as the adoption of rotation system and non-host cover crops. Another important pathogen is the soybean cyst nematode (SCN, *Heterodera glycines*) that was first registered in the season of 2001/02 and turned out to be one of the main phytosanitary problems in soybean crops. The infested area with SCN rapidly increased in all soybean cropped regions of the country, reaching about 2.5 million hectares at the present time. The SCN management has been done through rotation system with non-host plants - mainly corn - and the usage of resistant cultivars. Some other cultural methods for controlling SCN with success is the adequate management of soil fertility. Nowadays, the biggest problem concerning the management of NCS in Brazil is the great number of different races