

## XXXIX REUNIÓN ANUAL - ANNUAL MEETING

Villa Carlos Paz - Córdoba  
Argentina

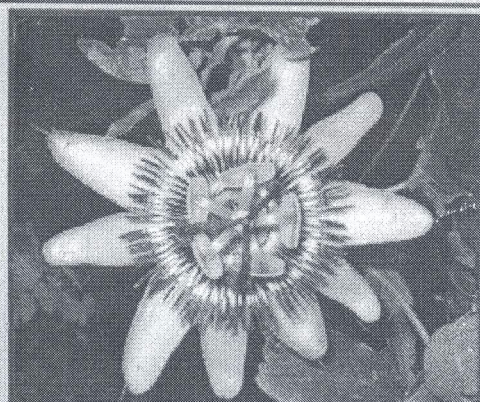
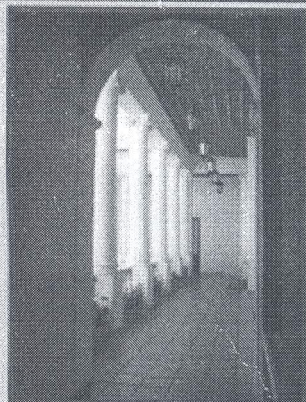


# ONTA

**Organización de Nematólogos  
de los Trópicos Americanos**

**Organization of Nematologists  
of Tropical America**

PROGRAMA y RESÚMENES  
PROGRAM and ABSTRACTS



29 de Octubre - 2 de Noviembre / October 29 - November 2

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Y3) is species-specific and is the most useful character for differentiating *M. inornata* from other *Meloidogyne* species.

(S 19)

DIVERSITY OF *MELOIDOGYNE ARENARIA* ISOLATES USING MORPHOLOGICAL, BIOCHEMICAL, CYTOLOGICAL AND HOST RACES APPROACHES. [DIVERSIDAD DE AISLADOS DE *MELOIDOGYNE ARENARIA* RELACIONADA A SU MORFOLOGÍA, BIOQUÍMICA, CITOLOGÍA Y RAZAS HOSPEDANTES]. **R.M.D.G. Carneiro**, M.F.A. Santos, M.R.A. Almeida, F.C. Mota, A.C.M.M. Gomes & **M.S. Tigano**. EMBRAPA, Recursos Genéticos e Biotecnologia, C.P. 02372, 70849-979 Brasília, DF, Brazil, [recar@cenargen.embrapa.br](mailto:recar@cenargen.embrapa.br) - Twelve *Meloidogyne arenaria* isolates representing two cytological types ( $3n=51-56$ ,  $2n=42-48$ ) and four enzymatic phenotypes (esterase and malate deshydrogenase: A1N3, A2N1, A1N1 and A2N3) were studied. Considering morphometrical and morphological features it was possible to conclude that the isolate with enzymatic phenotype A2N3 (race 1,  $3n=50-56$ ) was the same species as *M. arenaria* from peanut, Florida, USA, described by Chitwood, 1949. The seven isolates with phenotypes A2N1 ( $3n=50-56$ ) from different localities and the isolate A1N1 ( $2n=42-46$  chromosomes) can be considered morphometrically typical *M. arenaria* race 2. Morphologically, they were different from isolate race 1: stylet of female, head region of males and second-stage juveniles. The two isolates A3N1 ( $2n=42-48$ , race 2 of *M. incognita*) were identified as *M. morociensis* considering all morphological characters described for this species, enzymatic phenotypes, the number of chromosomes and the host race. The isolates A2N3 ( $2n=42-48$ , race 2) can be identified as an atypical *M. arenaria* race 2 or an unidentified species, presenting atypical perineal patterns and males with a very small distance of the DEGO to the base of the stylet (2.0-2.5  $\mu$ m). Consistent morphological differences were found between the two host races and four enzymatic phenotypes of *M. arenaria*.

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*MELOIDOGYNE ETHIOPICA*, A MAJOR ROOT-KNOT NEMATODE PARASITISING *VITIS VINIFERA* AND OTHER CROPS IN CHILE. [*MELOIDOGYNE ETHIOPICA*, UN NEMATODO MUY IMPORTANTE QUE PARASITA *VITIS VINIFERA* Y OTROS CULTIVOS EN CHILE]. **R.M.D.G. Carneiro**<sup>1</sup>, M.R.A. Almeida<sup>1</sup>, E.T. Cofcewicz<sup>1</sup>, J.C. Magunacelaya<sup>2</sup> & E. Aballay<sup>3</sup>. <sup>1</sup>EMBRAPA - Recursos Genéticos e Biotecnologia, C.P. 02372, 70849-979 Brasília, DF, Brazil, <sup>2</sup>Universidad Católica de Valparaíso, Casilla 4059, Valparaíso, Chile, <sup>3</sup>Universidad de Chile, Dpto. Sanidad Vegetal, Casilla 1004, Santiago, Chile. [recar@cenargen.embrapa.br](mailto:recar@cenargen.embrapa.br) - Enzyme phenotypes, specifically esterases (EST) and malate dehydrogenase (MDH), were used to characterise different species of *Meloidogyne* from Chile. Esterase activity was highly polymorphic and was the most useful in the identification of the different species. Using this enzyme it is possible to characterize and identify *M. ethiopica* in about 80% of samples on grapevine, kiwi and tomatoes. Another three species: *M. javanica*, *M. hapla* and *M. arenaria* were identified on tomatoes, kiwi and pomegranate with only one or a few populations. It was possible to detect minor atypical (unidentified) phenotypes, generally in mixed populations with *M. ethiopica*. Only the profiles N1 and H1 of MDH were detected. N1 was not specific and H1 allowed identification of *M. hapla*. Contaminated nursery stock has probably resulted in serious infestation by *M. ethiopica* in vineyards in various localities in Chile.