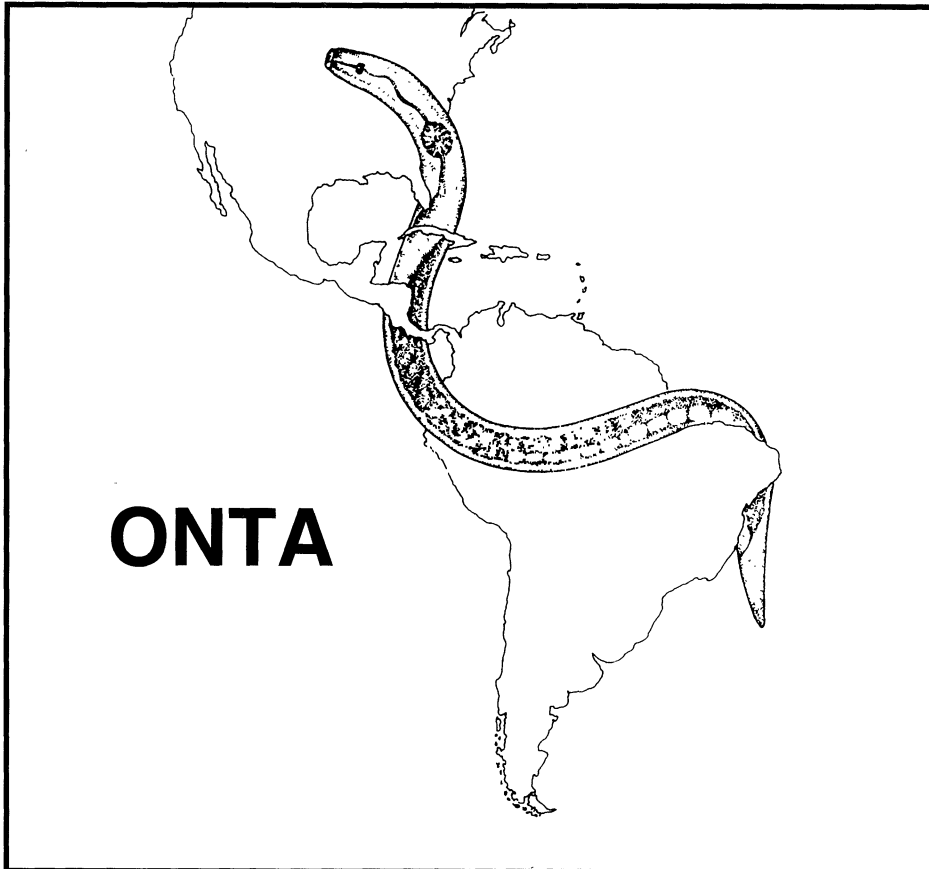


VOL. 26, No. 3

DICIEMBRE 1996  
DECEMBER 1996

# NEMATROPICA



**THIRD INTERNATIONAL  
NEMATODOLOGY CONGRESS ABSTRACTS**

NEMATROPICA  
COMITE EDITORIAL - EDITORIAL COMMITTEE

Editores - Editors:

J. R. Rich, University of Florida, Route 3, Box 4370, Quincy, FL 32351, U.S.A.  
N. Marbán-Mendoza, Dto. de Parasitología Agrícola, Universidad Autónoma de Chapingo,  
Chapingo, México

Editores Adjuntos - Senior Editors:

L. W. Duncan, University of Florida, Lake Alfred, FL, U.S.A.  
R. McSorley, University of Florida, Gainesville, FL, U.S.A.

Editores Asociados - Associate Editors:

A. Ayala, College Station, Mayaguez, Puerto Rico  
P. Baujard, Muséum national d'Histoire naturelle, Paris, France  
I. Cid del Prado, Colegio de Posgraduados, Montecillo, México  
K. G. Davies, Rothamsted Experiment Station, Harpenden Herts, U.K.  
D. De Waele, Katholieke Universiteit, Leuven, Belgium  
M. E. Doucet, Universidad de Córdoba, Córdoba, Argentina  
J. Franco, PROINPA, Cochabamba, Bolivia  
R. M. Giblin-Davis, University of Florida, Fort Lauderdale, FL, U.S.A.  
N. Greco, Istituto di Nematologia Agraria, CNR, Bari, Italy  
R. N. Inerra, Florida Dept. Agriculture & Consumer Svc., Gainesville, FL, U.S.A.  
P. Jatala, BioControl, Lima, Perú  
G. R. Noel, USDA ARS, University of Illinois, Urbana, IL, U.S.A.  
D. Orion, ARO, The Volcani Center, Bet-Dagan, Israel  
J. Pinochet, IRTA, Cabrils, Barcelona, España  
P. A. Roberts, University of California, Riverside, CA, U.S.A.  
R. Rodríguez-Kábana, Auburn University, Auburn, AL, U.S.A.  
J. L. Sarah, CIRAD-FLHOR, Montpellier, France

Administrador - Business Manager:

C. F. Weaver, Auburn University, Auburn, AL, U.S.A.

NEMATROPICA es publicado semestralmente por la ONTA, la ORGANIZACION DE NEMATOLOGOS DE LOS TROPICOS AMERICANOS. La organización celebra reuniones anuales para la presentación de estudios en nematología tropical y subtropical y para la tramitación de sus asuntos oficiales. Las personas interesadas pueden solicitar su ingreso escribiendo a la Secretaría. La cuota anual es de \$15.00 EE.UU., e incluye una suscripción de NEMATROPICA por un año. La cuota anual por suscripción institucional es \$30.00 EE.UU.

NEMATROPICA is published semiannually by ONTA, the ORGANIZATION OF NEMATOLOGISTS OF TROPICAL AMERICA. The organization meets once a year for the presentation of papers on tropical and subtropical nematology and for the transaction of business. Interested persons can apply for membership by writing the secretary. Annual dues are \$15.00 U.S. and include a year's subscription to NEMATROPICA. Institutional subscriptions are \$30.00 U.S.

DIRECTORES DE ONTA PARA 1996-97 - OFFICERS OF ONTA FOR 1996-97

Presidente - President:	Miguel Costilla, Agro-Indust. Obispo Col., Tucuman, Argentina
Vicepresidente - Vice President:	Elsa Carbonell, Universidad Nacional Agraria, La Molina, Peru
Secretario - Secretary:	Manuel Mundo - Ocampo, Department of Nematology, University of California, Riverside, CA 92521, U.S.A.
Tesorero - Treasurer:	Domingo Oramas, Agricultural Experiment Station, Rio Piedras, Puerto Rico

**SPECIAL COMMEMORATIVE EDITION  
OF ABSTRACTS FROM THE  
THIRD INTERNATIONAL NEMATODOLOGY  
CONGRESS (THINC)**

**PUBLISHED IN**

# **NEMATROPICA**

*Una Revista Científica Internacional de Nematología Tropical y Subtropical Publicada por ONTA  
An International Scientific Journal of Tropical and Subtropical Nematology Published by ONTA*

VOL. 26, No. 3

DICIEMBRE – 1996 – DECEMBER

Printed by  
E. O. Painter Printing Co.  
P. O. Box 877  
4900 US Highway 17 North  
DeLeon Springs, Florida 32130, U.S.A.

**THINC COMMITTEES****LOCAL ARRANGEMENTS COMMITTEE**

A. Kermarrec (INRA, Chairman)  
 P. Quénéhervé (ORSTOM)  
 H. Mauleon (INRA-COST)  
 J-M. Risède (CIRAD)  
 J. Anais (INRA)  
 L. Bazile (INRA)  
 S. Bigor (INRA)

N. Edinval (INRA)  
 R. Etienne (INRA)  
 L. Gaumé (INRA)  
 B. Martini (ORSTOM)  
 S. Panoma (INRA)  
 P. Topart (ORSTOM)  
 L. Marchay (INRA)

**PROGRAM COMMITTEE**

R. Rodríguez-Kábana (Chairman)  
 A. V. Coomans (ESN)  
 M. G. J. Moens (ESN)  
 P. Quénéhervé (ESN)  
 N. Marban-Mendoza (ONTA)  
 R. McSorley (ONTA)

J. Pinochet (ONTA)  
 G. C. Smart (ONTA)  
 D. W. Dickson (SON)  
 E. C. McGawley (SON)  
 T. L. Niblack (SON)  
 J. L. Starr (SON)

**FINANCE COMMITTEE**

F. Lamberti (Chairman)  
 A. Dalmasso (ESN)  
 B. R. Kerry (ESN)  
 U. Wyss (ESN)  
 A. Bello (ONTA)  
 D. W. Dickson (SON)  
 S. L. Hafez (ONTA)

L. A. Payan (ONTA)  
 J. L. Sarah (ONTA)  
 L. W. Duncan (SON)  
 S. A. Lewis (SON)  
 M. A. McClure (SON)  
 J. R. Rich (ONTA)  
 J. L. Starr (SON)

**ASSOCIATE MEETING COORDINATORS**

R. N. Inserra (ONTA), Inter-Committee Coordinator  
 A. V. Coomans (ESN)

G. R. Noel (ONTA)  
 J. L. Starr (SON)

**NEMATROPICA/THINC ABSTRACT COMMITTEE**

J. R. Rich (Chairman)  
 L. W. Duncan  
 R. McSorley  
 R. N. Inserra

**SOCIETIES ORGANIZING THINC**

Organization of Nematologists of Tropical America  
 European Society of Nematologists  
 Society of Nematologists

## PREFACE

### “What We Are Going to Be Should Concern Us More than What We Are”

This is the message provided by the worldwide exchange of information and ideas at the Third International Nematology Congress (THINC), organized by ONTA, ESN, and SON and hosted by INRA, ORSTOM, and CIRAD in Guadeloupe, July 7-12, 1996. While classical plant nematology remains indispensable, new and vital disciplines were well represented at THINC.

In the second half of this century, the use of efficient nematicides demonstrated the great importances of nematodes as major world agricultural pests. Much research was devoted in this period to the identification of nematode diseases and their control, especially with chemical strategies. After the 1970's, the concern for the environmental and human impact of the improper use of chemical management of nematode pests promoted a new phase of research focusing on microscopy, protein electrophoresis analysis, and more recently, all the spectrum of molecular techniques in nematology brought new opportunities and achievement. It has been possible to analyze the membranes supporting virus transmission in virus-vectoring nematodes, to collect and identify molecules produced by nematodes which are involved in the formation of specialized trophic cells, and also to isolate genes determining specific plant-nematode interactions. Also and least we understate, there has been dynamic and ever-increasing work with entomopathogenic nematodes and basic ecology of plant-parasitic and free-living nematodes.

THINC provided a real opportunity to establish a bridge among the many disciplines which are interconnected with agricultural/environmental nematology. The impact of these disciplines makes it clear that some of us will no longer bear the pure “plant nematologist” logo on our cap. Already, among our assemblage are those involved in molecular studies who forgot they once studied nematodes, while others continue to integrate their nematological background with agricultural disciplines. Some, close to retirement, will never be replaced, their mission no longer pursued. However, we believe strongly, at this ending of the century, that agricultural nematology will continue to bear fruit into the next.

The common effort of ONTA, ESN, and SON to organize this Congress was symbolic because at the end of the 20th century, developing nations, mainly tropical, require the concerted efforts of scientists worldwide to assure an adequate and safe diet to 5-6 billion people. We need the means to achieve efficient integrated management of nematodes in order to limit crop losses. THINC demonstrated the importance of new biological knowledge relative to nematodes in the integrated management of pests.

The scientific event of THINC? The tremendous job by Rodrigo Rodríguez-Kâbana, his team and the members of the Program Committee satisfied all, not only the nematologists. The Congress itself? Will you ever forget the local music? Anyway, we did it, all together (hurricane Bertha included), and it was nothing less than an incredibly great, warm, and dynamic moment of science and friendship.

Many thanks are due to our local, national, and international sponsors who were determinant for the local arrangements of the Congress. In particular, we appreciated the support of the Regional Council and General Council of Guadeloupe; the Ministries of Research (DISTNB), Cooperation, and Foreign Affairs of France; the European Community (DG12); CTA (Lome' 4); and many very supportive private companies. Special recognition is extended to the members of the planning committees (especially Financial and Local Arrangement Committees) and Coordinators. The efforts, time, and unselfish dedication of these persons made this scientific event possible.

**Alain Kermarrec and Antonio Dalmaso for all of us.**

## **THINC ABSTRACTS**

July 7-12, 1996  
Gosier, Guadeloupe  
Antilles, French West Indies

### **TABLE OF CONTENTS**

Abstracts of Symposia .....	193
Abstracts of Poster Sessions .....	233
Abstracts of Special Sessions .....	335
Abstracts of Video Sessions .....	337
Abstracts of Discussion Sessions .....	339
Alphabetical Index of Authors .....	341