



# OFFICE OF INTERNATIONAL PROGRAMS GLOBAL EXPERIENCE

## Plant-parasitic Nematode Identification Workshop



**Paula Agudelo**  
Clemson University  
Clemson, South Carolina.  
pagudel@clemson.edu

**Marco Arévalo** (host country coordinator)  
Universidad Rafael Landívar  
Guatemala City, Guatemala.  
maarevalo@url.edu.gt

### Guatemala. June 16-20, 2009

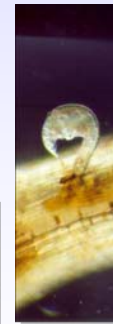
The workshop was offered at the School of Environmental and Agricultural Sciences (Facultad de Ciencias Ambientales y Agrícolas) located on the main campus of Universidad Rafael Landívar, in Guatemala. A laboratory equipped with compound microscopes and stereomicroscopes was provided by the hosting institution. The workshop was structured as short lectures on the biology and ecology of the nematode groups, immediately followed by direct observation of specimens. The emphasis of the course was on identification by morphology. Participants prepared and observed their own mounts of fresh specimens of each of the 25 most common plant-parasitic nematode genera. Each participant was provided with a reference book, a laboratory workbook, and the necessary tools. The workshop was designed so that 75% of the time was dedicated to the direct observation of specimens and to answering questions individually at each microscope station.

We are greatly indebted to the APS Office of International Programs for the support of this effort.

The 16 participants of the workshop included extension scientists, professional consultants, regulatory personnel, diagnosticians, and graduate students with a direct interest in plant nematology. Five of them were employed in academia, 4 in government agencies, and 7 in plant disease diagnostic clinics or industry. Specific crop interests included ornamentals, cucurbits, coffee, potato, and vegetables.



After the workshop, we expect the participants to have the knowledge and skills necessary to identify the most important 25 genera of plant-parasitic nematodes. This includes knowing how to extract and mount specimens from soil samples and plant material, and how to use taxonomic keys.



#### PROGRAMA

Curso de Identificación de Nematodos Fitoparásitos  
Universidad Rafael Landívar  
junio 16-20, 2009

- ♦ martes, 16 de junio
  - 8:00 INTRODUCCIÓN
  - 8:30 ANATOMÍA Y FISIOLÓGIA
  - 10:00 RECESO
  - 10:15 PROCEDIMIENTOS DE LABORATORIO
  - 12:00 ALMUERZO
  - 1:30 MORFOLOGÍA & BIOLOGÍA DE DORYLAIMIDA
  - 3:00 RECESO
  - 3:15 LABORATORIO: *Xiphinema*, *Longidorus*, *Trichostrongylus*
  - 4:30 CIERRE
- ♦ miércoles, 17 de junio
  - 8:00 MORFOLOGÍA & BIOLOGÍA DE APHELENCHIDA
  - 8:30 LABORATORIO: *Aphelenchus*, *Aphelenchoides*, *Baraphelenchus*
  - 10:00 RECESO
  - 10:15 MORFOLOGÍA & BIOLOGÍA DE CRICONEMATODEA
  - 11:00 LABORATORIO: *Criconelema*, *Hemicriconelema*, *Hemicriconelema*
  - 12:00 ALMUERZO
  - 1:30 MORFOLOGÍA & BIOLOGÍA DE CRICONEMATODEA
  - 2:00 LABORATORIO: *Paratylenchus* y *Tylenchulus*
  - 4:30 CIERRE
- ♦ jueves, 18 de junio
  - 8:00 MORFOLOGÍA & BIOLOGÍA DE HETERODERIDA
  - 9:00 LABORATORIO: *Metatlenchus*
  - 10:00 RECESO
  - 10:15 LABORATORIO: *Heterodera*
  - 12:00 ALMUERZO
  - 1:30 REPASO
  - 2:00 PRIMER EXAMEN DE IDENTIFICACIÓN
  - 3:00 RECESO
  - 3:15 MORFOLOGÍA & BIOLOGÍA DE PRATYLENCHIDA
  - 4:00 LABORATORIO: *Pratylenchus* y *Radiolabus*
  - 4:30 CIERRE
- ♦ viernes, 19 de junio
  - 8:00 MORFOLOGÍA & BIOLOGÍA DE HOPLOLAIMIDA
  - 9:00 LABORATORIO: *Rosylenchus* y *Helicotylenchus*
  - 10:00 RECESO
  - 10:15 LABORATORIO: *Hoplostia* y *Scutellonema*
  - 12:00 ALMUERZO
  - 1:30 MORFOLOGÍA & BIOLOGÍA DE DOLICHODORIDA
  - 2:15 LABORATORIO: *Dolichodorus*, *Beloniellus*, y *Tylenchorhynchus*
  - 3:00 RECESO
  - 3:15 MORFOLOGÍA & BIOLOGÍA DE TYLENCHIDA Y ANGINUNDAE
  - 3:45 LABORATORIO: *Tylenchus*, *Angonia*, *Angonimus*
  - 4:30 CIERRE
- ♦ sábado, 20 de junio
  - 8:00 FOTO DE GRUPO
  - 8:15 TÉCNICAS DE MUESTREO Y EXTRACCIÓN
  - 10:00 RECESO
  - 10:15 REPASO
  - 10:30 SEGUNDO EXAMEN DE IDENTIFICACIÓN
  - 11:45 CRÍTICA Y ENTREGA DE CERTIFICADOS