

Annual ANR Nematology Workgroup Meeting, March 2005

The UCANR Nematology Workgroup met in Davis, CA on the afternoon and evening of March 27, 2005, the day preceding the 37th Annual California Nematology Workshop. The meeting was attended by approximately 35 individuals, including many of the Nematology faculty, staff and students from both UC Davis and UC Riverside. Announcements of the meeting were sent to all county offices but, although three of the attendees hold Specialist appointments, there was only one farm advisor present. There may be a problem with seasonal field responsibilities. Representatives from CDFA and USDA participated in the discussions. Breadth of the discussions was amplified by the presence of Dr. John Mueller (Clemson University), invited speaker for the next day's workshop.

After self introductions of all attendees, reports were presented on assignments undertaken at the previous year's meeting. Those were the assembly of damage threshold data for walnuts (by McKenry) and for a series of row crops (by Ferris and Roberts). Those thresholds will be posted on the Nematology web site by Becker.

Two projects have been funded through the Nematology Workgroup over the last several years. Of those, the Lesion Nematode project has been completed but the work has continued using funding from different sources. Graduate student Jack Qiu reported on molecular markers that separate species of lesion nematode. McKenry and De Ley reported on morphological and molecular characteristics of ring nematode populations throughout California. They also indicated marked differences in virulence among populations that can not yet be distinguished by any of the markers.

The next portion of the meeting was dedicated to reports by individual PIs, grouped by subject matter area: Host-parasite interactions, soil ecology nematode biology and life history strategies, nematode management, systematics and evolutionary biology, and diagnostics and regulatory programs. Finally, we discussed opportunities for collaboration although the discussions were dampened somewhat by lack of a workgroup grants program. However, as a result of the meeting there is potential for collaborations between UC and CDFA personnel in a diagnostic survey of the nematodes of California (Chitambar), expanding on the ring nematode project (De Ley), and broadening the scope of the former lesion nematode project (Baldwin).

The workgroup dinner was attended by almost all of the participants and discussions continued.

The 37th Annual California Nematology Workshop, held the next day, and attended by approximately 150 industry, PCA, UC, USDA, CDFA professionals. The 7-hour program dealt with alternatives to recently-withdrawn pesticides and provided information from the UCANR funded projects.

Accomplishments

1. Developed and summarized nematode damage threshold data for:
 - a) lesion nematode (*Pratylenchus vulnus*) on walnut
 - b) root-knot nematode (*Meloidogyne incognita*) on bell pepper, canatloupe, carrot, chile pepper, cotton, cowpea, potato, snapbean, squash, sugarbeet, sweetpotato and tomato.
 - c) sugarbeet cyst nematode (*Heterodera schachtii*) on sugarbeets.
 - d) root-knot nematode (*Meloidogyne chitwoodi*) on potato.
2. Reliable molecular markers have been developed to distinguish six important species of lesion nematode in California.
3. Understanding of the variability in virulence of ring nematode populations is developing and continuing.
4. Important interagency collaborations have been forged.

Outcomes and Impacts

Members of the workgroup are cognizant of the challenges in nematode management and of the variability among nematode populations. The workgroup discussions are critical to establishing strong collaborative associations.

Combining the Workgroup Meeting with the annual California Nematology Workshop enhances attendance benefits for all.