Soderlund Named Director of Federal Analytical Lab at Cornell

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by Pat Blakeslee

GENEVA, NY: David M. Soderlund, Cornell University professor of insecticide toxicology at the New York State Agricultural Experiment Station, has been appointed director of the Northeast Region's Interregional Research Project No. 4 (IR-4) Laboratory, located at the Experiment Station.

Soderlund succeeds Richard A. Durst, professor of chemistry and director of the Northeast IR-4 laboratory since 1990, who was appointed chair of the department of Food Science and Technology (FS&T) on July 1. Soderlund will have a joint appointment in Entomology and FS&T.

Since joining the faculty at the Station, Soderlund has developed and sustained a comprehensive research program focused on the applied aspects of insect molecular neurobiology relevant to the discovery and characterization of new insect control agents and on the molecular genetic analysis of insecticide resistance mechanisms.

"I look forward to working with Dave in this very important Federal program, which provides analytical data for the registration of minor-use pesticides," Durst told FS&T staff in a memo informing them of the appointment, which became effective September 1.

"I consider the directorship of the Northeast IR-4 Laboratory to be a very important position," says James E. Hunter, director of the Geneva Station, "and I am confident that Dave has the professional expertise and the leadership ability necessary to carry out the duties of the position in an exemplary manner. I appreciate his willingness to take on this role while continuing his research program in entomology."

Soderlund will oversee the Northeast region's $1.3 million program and work closely with
veteran laboratory coordinator Pim Larsson-Kovach, field coordinator Edith Lurvey, and other members of the NE IR-4 team to ensure that realistic goals and priorities are set and the stringent research standards of the program are upheld.

Soderlund feels fortunate to be inheriting such a healthy and productive research program. "The lab is running like a well-oiled machine," he observed. "I thank Dick Durst, Pim Larsson-Kovach, Edith Lurvey, and the entire staff of the Regional Laboratory for that."

**IR-4's Strategic Challenges**

IR-4 is a federal project, administered by the U.S. Department of Agriculture, to help producers of minor crops, such as fruits and vegetables, by securing the analytical data they need to support the registration of new pest control tools for these crops by the EPA. Headquartered at Rutgers University, it consists of a network of analytical laboratories and agricultural research centers that collaborate to set program goals and provide analytical support to the minor crop industry. These facilities analyze and interpret residue studies conducted under field conditions specified and supervised by IR-4 personnel following strict quality assurance guidelines. At the Station, where the main focus of research is residue studies on food crops, Pim Larsson-Kovach identifies the projects that the NE region will work on and supervises laboratory analysis. Field research is supervised by Edith Lurvey.

"The IR-4 program has become increasingly important because of the Food Quality Protection Act (FQPA) and the need to ensure that effective and safe measures are available for controlling agricultural pests, including plant pathogens and weeds," says Hunter. The FQPA, enacted in 1996, mandates a careful review of the safety of all existing pesticides by the year 2006, as well as increased restrictions on new pesticides.

"It's pretty clear that some older pesticides that have been the cornerstones of crop-protection strategies will be restricted in their use," says Soderlund. "Minor crop controls stand to take a disproportionate hit, he says, because they contribute rather heavily to the acceptable daily intake (ADI) of chemical residues set by the EPA while offering a relatively low economic return to the manufacturers. Although minor crops account for more than 40 percent of crop sales in the U.S., individual commodities represent a rather small fraction of the world agricultural market. By providing analytical support needed to support product tolerance petitions to the EPA, IR-4 underwrites part protections on the market and helping to expedite the development and registration of new crop protection tools.

"Because it costs about $30 million to discover and develop a new pesticide, the agrichemical companies need to find markets that allow them to recover their investment and also yield a profit," Soderlund says. "No product in New York State, with the possible exception of corn, can be considered on that scale," he says. As one of 26 states that rely on minor crops for 50 percent or more of their total crop sales, New York has a real stake in the success of IR-4.

IR-4 serves as a broker for the scientific dialogue between minor crop producers and the agrichemical industry. As a member of the project's leadership team, Soderlund will work with growers and researchers to identify pest control compounds that work well and are
clearly needed and whose registrations will be supported by the companies that produce them.

Soderlund looks forward to the strategic challenges that he and other members of IR-4's Project Management Committee will face. "I will be involved in shaping policy and setting priorities for IR-4 research in the context of emerging trends in the development of crop protection tools," he says. "I've spent two decades developing expertise in that area as a researcher and a consultant," he explains.

Soderlund joined the Station faculty as an assistant professor in 1978. He was promoted to associate professor in 1984 and full professor in 1992. His professional activities include service on the editorial boards of two professional journals, teaching in Cornell's graduate program in environmental toxicology, and supervision of research by graduate students and postdoctoral fellows. He is the author of more than 100 scientific articles and co-inventor on two patents.