

Herbicide Action Course The Utility Perspective

**March 11-13, 2002
Syracuse, NY**

*Presented by—
State University of New York
College of Environmental Science and Forestry
Faculty of Forestry
ESF Continuing Education and
New York Center for Forestry Research and Development*

New! Certification Opportunities- see below

Herbicides are an important tool for managing electric transmission line right-of-way (ROW) vegetation. Commonly used on New York ROW's since the 1960's, they are generally accepted as a cost effective and environmentally sensitive method for killing understory vegetation and fostering the development of desirable vegetation. Herbicides can be grouped into similar classes based on their interactions with the ROW ecosystem. Understanding these interactions allows the practitioner to use better application techniques, more easily optimize application outcomes, and more clearly explain the scientific and technical bases of herbicide use to stakeholders.

Purpose: To provide a greater understanding of the activity, selectivity, behavior, and fate of herbicides in plants and the environment.

Objectives: To present information about:

- Right-of-way vegetation management history and approaches.
- Plant physiology and soils as primers for information on herbicide action.
- Herbicide action at the physiological and biochemical level.
- Risk and toxicology with herbicides.

Audience: Vegetation Managers, Practitioners, Regulators, and Students

Pesticide Certification Credits: The Herbicide Action Course has been approved for 14.5 Continuing Education Units (CEUs) under the ISA (International Society of Arboriculture) Certification Program. The course also qualifies for 11.5 NYS DEC Pesticide Applicator recertification credits for Categories 2, 6a and 10. The Society of American Foresters approved the workshop for 12 Category 1 CFE credits.

New Opportunity for Certification: By combining this course with portions of the 30-hour Pesticide Recertification course offered by Oneida County Cooperative extension you can obtain initial "technician-level" certification. Registrants must complete the two-day Herbicide Action Course and attend three days, including certification examination, at the Cornell Cooperative Extension of Oneida County course to earn Category 6A (Rights of Way) Certification. The dates of training are March 18-19 and March 27, 2002 at an additional cost of \$50 a day plus manuals. By taking Oneida County's full course (add March 25 and 26), you can earn certification in other categories as well. There is a \$10 exam fee, payable on the day of the exam. For more information, please call Jeff, Steve or Clare at (315)736-3391.

Dates: March 11-13, 2002

Location: State University of New York College of Environmental Science and Forestry, Syracuse, NY. A map and directions will be sent with acknowledgment of registration.

Dress: Business Casual



**Herbicide Action in Woody
Plants**

Herbicide Action Course: *The Utility Perspective*

Speakers

Craig Allen is a System Forester with Niagara Mohawk Power Corporation. He has a BS in Forestry Resource Management and is a certified arborist, utility specialist, and certified herbicide applicator.

Benjamin Ballard is a Research Scientist and Ph.D. candidate at SUNY-ESF. He is currently responsible for management of more than 15 vegetation management studies on power line corridors.

Dr. David Bridges (tentative) is from the University of Georgia. He conducts research in weed-crop competition, weed management in agronomic crops, and modeling of weed-crop interactions.

Dr. Russell Briggs is currently an Associate Professor of Forest Soils at SUNY-ESF. In addition to teaching soil science courses, Dr. Briggs has done extensive research on nutrient cycling and site productivity.

Dr. Patrick Durkin is vice-president of Syracuse Environmental Research Associates and conducts herbicide risk assessments for the USDA Forest Service and develops risk assessment methods for various branches of the federal government. Dr. Durkin is a charter member of the American College of Toxicology and the Society of Risk Analysis. He currently serves on the US EPA Office of Pesticides Science Review Board and has served on the US EPA Science Advisory Board.

Kenneth Finch is the Director of Forestry at Niagara Mohawk. Following the Army and a tour with Asplundh Tree Company, Ken joined Niagara Mohawk as a Forestry Foreman and has risen through the ranks to become the Company's top forestry professional.

Kevin McLoughlin is the System Forester at the New York Power Authority. He also worked for the Empire State Electric Energy Research Corporation (ESEERCO) for many years in the environmental and land use area.

Richard Mider is the System Transmission Forester for New York State Electric & Gas Corporation and has 27 years experience in utility vegetation management.

Dr. Christopher Nowak is currently an Associate Professor of Forestry at SUNY-ESF. In addition to teaching silviculture and forest vegetation management, Dr. Nowak has done extensive vegetation management and research.

Dr. Lawrence Smart is an Associate Professor in Environmental & Forest Biology at SUNY-ESF and teaches Cell Physiology and Plant Physiology. His research focuses on drought tolerance, including stomatal physiology and cuticle wax biochemistry, as well as breeding willow for improved yield as a bioenergy crop.

Dr. Stephen Weller is Professor of Horticulture and Landscape Architecture at Purdue University. He studies molecular and physiological weed science, including mechanisms of plant resistance to herbicides.

Herbicide Action Course: *The Utility Perspective*

Lodging

Participants must make your own room reservations. We have reserved a block of rooms at the Sheraton University Inn, 801 University Avenue, Syracuse, at \$149 per night. Call (315-475-3000) to reserve your room, mentioning the Herbicide Action Course to qualify for the workshop rate. The block will be held until February 11, 2002 , so be sure to register by then.

The Sheraton is about a ten-minute walk across campus from SUNY-ESF.

Herbicide Action Course: *The Utility Perspective*

Preliminary Program

Monday, March 11, 2002

- 11:00 am Registration
- 12 Noon Lunch (provided)
- 1:00 pm **Welcome and Introduction**, *Ken Finch*, Niagara Mohawk Power Corporation and *Chris Nowak*, SUNY-ESF
- 1:20 **Who's the Pest (or Not)?**, *Benjamin Ballard*, SUNY-ESF
- 1:40 **What is Integrated Vegetation Management and Where Do Herbicides Fit in?** *Kevin McLoughlin*, New York Power Authority
- 2:10 **Treatment Types and Methods**, *Dick Mider*, New York State Electric & Gas Corporation
- 2:35 **Common Herbicides and Modes of Action**, *Lawrence Abrahamson*, SUNY-ESF
- 3:05 Break
- 3:35 **Primer: Plant Physiology—Penetration**, *Lawrence Smart*, SUNY-ESF
- 4:00 **Adjuvants**, *Stephen Weller*, Purdue University and *David Bridges*, University of Georgia
- 4:30 **Primer: Plant Physiology –Translocation**, *Lawrence Smart*
- 5:00 **Selectivity**, *Stephen Weller*
- 5:30 Questions and Discussion
- 6:00 Reception
- 6:30 Dinner

Tuesday, March 12, 2002

- 8:30 am **Why Learn about Modes of Action**, *Chris Nowak*
- 9:00 **Primer: Plant Physiology – Plant Hormones**, *Lawrence Smart*
- 9:30 **Mechanism of Action: Growth Regulator Herbicides (2,4-D, Picloram, Triclopyr)**, *Stephen Weller*
- 10:15 Break
- 10:45 **Primer: Plant Physiology—Photosynthesis Basics I**, *Lawrence Smart*
- 11:00 **Primer: Plant Physiology—Photosynthesis II**, *Lawrence Smart*
- 11:30 **Mechanism of Action: Photosynthesis Inhibitors (Diuron, Bromacil)**, *Stephen Weller*
- 12:15 pm Lunch (provided)
- 1:15 **Primer: Plant Physiology—Amino Acid Synthesis**, *Lawrence Smart*
- 1:45 **Mechanism of Action: Amino Acid Synthesis Inhibitors (Metsulfuron, Chlorsulfuron Sulfometuron, Imazapyr, Glyphosate)**, *David Bridges*

- 2:45 Break
- 3:15 **Mechanism of Action: Miscellaneous Herbicides (Fosamine)**, *Stephen Weller*
- 3:30 **Herbicide Resistance**, *Stephen Weller*
- 4:00 Questions and Discussion

Wednesday, March 13, 2002

- 8:00 am **Primer: Soils and Water**, *Russ Briggs*, SUNY-ESF
- 9:00 **Herbicide Movement**, *David Bridges*
- 9:30 Break
- 10:00 **Microbial/Non-microbial Degradation**, *David Bridges*
- 10:30 **Herbicide Risk Assessment**, *Patrick Durkin*, Syracuse Environmental Research Associates
- 11:30 **Practical Application Back on the Job**, *Craig Allen*, Niagara Mohawk
- 11:45 **Summary**, *Chris Nowak* and *Ken Finch*
- 12 Noon Adjourn

Herbicide Action Course: *The Utility Perspective*

Registration

To Register: Simply fill out and mail the registration form with your registration fee. To tentatively reserve a space, call ESF Continuing Education at (315) 470-6891; or fax to (315) 470-6890.

Registration Deadline: Registrations *and payment* must be received by March 1, 2002. (We have to make catering guarantees.)

Course fee: \$500 discounted early registration fee before March 1, \$565 if received after March 1. Includes lunches March 11 and 12, dinner on March 11, breaks and course materials. A special rate of \$110 or \$195 after March 1 is available to regulatory agency employees. Agency purchase orders accepted. *Checks payable to SUNY Research Foundation (federal ID# 141368361). VISA or MasterCard also accepted.*

Refunds: Participants who wish to withdraw must give written notice by March 1, 2002 to receive a full refund. A \$65 cancellation fee will be retained after that, however, no refunds will be granted if notice is received the day of the workshop or after. Substitutions are permissible at any time. SUNY-ESF reserves the right to cancel any program in the event of insufficient registrations; full refunds will be made in such a case.

Herbicide Action Course: *The Utility Perspective*

Print and Mail or Fax to ESF Continuing Education

Name _____
Title _____
Agency/Company _____
Address _____
City _____ State _____ Zip _____
Phone (____) _____ Fax (____) _____
email _____
Dietary or Other Special needs: _____

Register me for the *Herbicide Action Course*. Enclosed, payable to SUNY Research Foundation is:

- \$500 early registration fee by March 1.
- \$595 if received after March 1.
- \$110 regulatory agency fee by March 1.
- \$195 regulatory agency after March 1.

Make checks payable to SUNY Research Foundation

Credit card payment: VISA MasterCard

Account #: _____

Expires: _____ Signature: _____

I plan to attend (please check all that apply)

March 11: Lunch Dinner

March 12: Lunch

Mail or fax form with payment to:

ESF Continuing Education
SUNY College of Environmental Science & Forestry
1 Forestry Drive, Syracuse, NY 13210-2784

FAX: 315-470-6890

Registration Form

Herbicide Workshop

Name _____

Organization _____

Address _____

City _____ State _____ Zip _____

Phone (____) _____ Fax (____) _____ email _____

Register me for Herbicide Workshop on August 18, 1999. Enclosed is my workshop fee,

Fees: **If paid** by August 11, 1999: \$95.

If paid after August 11, 1999: \$125.

Credit Card Payment: VISA Mastercard Account Number: _____

Signature : _____ Expiration Date: _____

Special needs: _____

Mail form to: ESF Continuing Education, SUNY College of Environmental Science & Forestry, Syracuse, NY 13210-2784

FAX: 315-470-6890