



The Pesticide Stewardship Alliance

8th Annual Pesticide Stewardship Conference

February 24-27, 2008 - Asheville, North Carolina

STEWARDSHIP STRATEGIES AND TOOLS

The Pesticide Stewardship Alliance promotes networking and cooperation among parties from around the world who work to improve stewardship efforts - increasing effectiveness and efficiency through proper labeling, judicious application, proper handling of empty containers and waste minimization.

Event and Session Overview

Sunday, February 24, 2008

Sun	9:30a-3p	TPSA Tour: Sustainability at the Biltmore Estate - Open to Members & Guests		
Sun	3p-8p	Registration Open		
Sun	4p-6p	TPSA Board Meeting - Salon C - Open to Members & Guests		
Sun		Dinner on your own		
Sun	7-8:30p	Opening Reception - Poster & Displays - Salon B		

Monday, February 25, 2008

Mon	6:45-8a	Full Breakfast and Roundtables - Salon B		
		<ol style="list-style-type: none"> 1) TPSA Future and Pesticide Environmental Stewardship Program Strategy 2) Reconciling the Diversity of Drift Language on Labels 		
Mon	7-noon	Registration Open - Ballroom Foyer		
Mon	8-8:30a	Opening Session and Welcome - Salon C - Carol Ramsay, TPSA President, Washington State University; Wayne Buhler, North Carolina State University; and Howard Isley, Assistant Commissioner, North Carolina Department of Agriculture and Consumer Services		
Mon	8:30-10a	Plenary - STEWARDSHIP FROM THE LEGAL PERSPECTIVE Bill Ferguson, Bayer CropScience		
Mon	10-10:15a	Break		
Mon	10:15-11:45a	Session I-A - Windsor Creating an Integrated Ag Plastic Management Strategy: What's Happening in Wisconsin, Minnesota and the Northeast	Session I-B - Salon C Pesticide Spray Drift Mitigation Programs and Perspectives	
Mon	12-12:45p	Luncheon		
Mon	1-2:30p	Session II-A - Windsor Engaging Ag Film Product Manufacturers in Life Cycle Stewardship	Session II-B - Salon C Pesticide Spray Quality & Droplet Sizes for Stewardship and Efficacy	Session II-C - Swannanoa Stewardship Activities in West Africa
Mon	2:35-3:00p	Submitted Papers A	Submitted Papers B	Submitted Papers C
Mon	3:00-3:15p	Break		
Mon	3:15-4:45p	Session III-A - Windsor Needed! An Improved Pesticide Label System for Stewardship	Session III-B - Salon C Recordkeeping: Documenting Pesticide Application Stewardship	Session III-C - Swannanoa More Bang for the Buck: Building Disposal Program Sustainability by Adding Services
Mon	4:45-6:00p	TPSA Member Meeting - All conference attendees welcome! - Salon C		
Mon	6-9p	Grand Reception and Awards Ceremony - Salon B Open to Members & Guests		

Also: Demonstration of Big Foot Baling Equipment

Tuesday, February 26, 2008

Tues	7-8:15a	Breakfast and Roundtables - Salon B 1) Multi-stakeholder Engagement on Off-Target Movement - What's Next 2) Video-based Review of High Hazard Waste Management 3) Development of International Programs	
Tues	8:30-10a	Session IV A - Windsor Pesticide Volatility Stewardship Activities	Session IV B - Salon C Recycling Plastic Pesticide Containers: Volume Reduction Technologies
Tues	10-10:15a	Break Silent Auction: Bidding ends for 3 Items	
Tues	10:15-11:45a	Session V A - Windsor Managing Hazardous Wastes Smarter: Using All Tools at Your Disposal	Session V B - Salon C Plastic Pesticide Container Recycling Rules & Approaches
Tues	12-1:30p	Luncheon Silent Auction: Bidding ends	
Tues	1:45-3:15p	Session VI A - Windsor What's in that Container? Case Studies in Specialty Waste Management	Session VI B - Salon C Programs Designed to Reach Applicators and Protect the Public/Environment from Pesticide Misapplications
Tues	3:15p	Break	
Tues	3:30-5:00p	Session VII A - Salon C Stewardship Visions for Dynamic E-Labeling	Session VII B - Windsor Pesticide Container Collection Logistics
Tues	6-9p	North Carolina Style Pig Pickin' Dinner and Entertainment at the Farm Open to Members & Guests	

Wednesday, February 27, 2008

Wed	7:30-8:45a	Continental Breakfast	
Wed	8:30a-3:30p	Salon C - Workshop Off-Target Movement Modeling: Uses and Limitations	Victoria - Workshop Beyond DOT - Hazardous Waste Shipment in a Multi-Stream World
Wed	12-1p	Lunch	
Wed	1-3:30p	Off-Target Workshop Continues Waste Workshop Continues	

Biltmore Tour: The Biltmore House is a 250-room French Renaissance chateau built for George Vanderbilt in the 1890's. It remains America's largest privately owned home. The chateau is on the 8,000-acre Biltmore Estate, which also houses Vanderbilt's winery. Self-guided tours of the mansion and the winery each take about 90 minutes or a bit longer. On the Mansion Tour you will see original art from masters such as Renoir, Napoleon's chess set, a library with 10,000 volumes, a Banquet Hall with a 70-foot ceiling, 65 fireplaces, an indoor pool, bowling alley, and priceless antiques. The self-guided Winery Tour concludes in the Tasting Room where you can enjoy complimentary wine tasting.

A bus will depart from the Renaissance Hotel at 9:30 am, Sunday, February 24, and arrive at the Biltmore Estate by 10:00 am. We'll distribute tickets that will allow admission to the home and winery. Lunch from 12 noon to 1:30 pm will be at the Stable Cafe, adjacent to the chateau. We will depart from the Estate by 3:00 pm.

TPSA 2008 Corporate Sponsors



Bayer CropScience



TPSA 2008 Conference Sponsors



Care Environmental Corp.



Plenary Address

Stewardship from the Legal Perspective: No Good Deed Goes Unpunished?

Bill Ferguson

Vice-President and Associate General Counsel of Bayer CropScience LP

Session Details and Presentations

(Sessions Listed in Sequence)

Session I A - 10:15-11:45a

Windsor

**Creating an Integrated Ag Plastic Management Strategy
What's Happening in Wisconsin, Minnesota and the Northeast**

Moderator: Roger Springman
Wisconsin Department of Agriculture, Trade and Consumer Protection

- **Recycler's Vision for Total Ag Plastics Recycling Service**
John Schmitz and Meaghan Phelan, Agsi Plastic, Savage, MN
- **State Government Role in Creating an Ag Plastics Recycling Demo for the Real World**
Wayne Gjerde, Minnesota Office of Environmental Assistance
- **View from the Wisconsin Crop Protection Association (WCPA)**
Mike Turner, Executive Director WCPA
- **Status of Ag Film Recycling in the Northeast**
Lois Levitan, Cornell University, Recycling Ag Plastics Project, Ithaca, New York
- **The Right Equipment Makes a Difference: Story of the Big Foot Baler**
Dennis Sutton, Big Foot Baler, Bradenton, Florida

Session I B - 10:15-11:45a

Salon C

Pesticide Spray Drift Mitigation Programs and Perspectives

Moderator: Jack Peterson
Arizona Department of Agriculture

- **Spray Drift Reduction Technology and Activities Stemming from the Pesticide Program Dialogue Committee Workgroup** - Jay Ellenberger, US EPA OPP
- **Australia's Spray Drift Mitigation Measures**
Andrew Hewitt, Univ. of Queensland, Australia
- **Europe's Application Monitoring and Equipment Verification**
Dirk Rautman, Institut für Anwendungstechnik im Pflanzenschutz, Germany
- **Canada's Use of Buffers for Risk Mitigation**
Ted Kuchnicki, Pesticide Management Regulatory Agency, Canada
- **Drift Mitigation Education within the Chemical Industry** - Mark Ledson, Syngenta

Session II A - 1:00-2:30p

Windsor

Engaging Ag Film Product Manufacturers in Life Cycle Stewardship

Moderator: Lois Levitan
Cornell University

- **Moderated discussion to explore strategies for increasing manufacturer involvement in ag film recycling. Examine the applicability of the ACRC model, TPSA's role, and more.**

Session II B - 1:00-2:30p

Salon C

Pesticide Spray Quality & Droplet Sizes for Stewardship and Efficacy

Moderator: Carol Ramsay
Washington State University

- **Droplet Size Calculators: Generic Models for Application Support and Product-Specific Models for Label Compliance**
Andrew Hewitt, University of Queensland
- **Calibrating for Droplet Size** - Robert E. Wolf, Kansas State University
- **Drop to the Crop: Droplet Sizes Needed for Insect, Fungi, Weed Control and Drift Mitigation?** - Dennis Gardisser, University of Arkansas
- **Educating Applicators about Drift Potential** - Steve Pearson, Spraying Systems
- **Application Tools that Applicators Need** - Lonnie Reed, Southern States Cooperative, NC

Session II C - 1:00-2:30p

Swannanoa

Stewardship Activities in West Africa

Moderator: Don Mullins
Virginia Tech

- **Crop Quality Assurance in West Africa (and other emerging nations): Pesticide Safety Education** - Pat Hipkins, Virginia Tech
- **Mali Central Veterinary Laboratory** - Safiatou Berte DEM, Environmental Toxicology and Quality Control Laboratory, Central Veterinary Laboratory, Mali
- **Pesticide Residue Analysis in West Africa: Introducing the Quechers Method**
Jean Cobb, Pesticide Residue Laboratory, Department of Biochemistry, Virginia Tech

Session A - Submitted Papers

2:35-3:00p

Windsor

- **Activities and Services of EPA's Environmental Stewardship Branch**
Frank Ellis, U.S. EPA, Office of Pesticide Programs, Larry Elworth, Center for Agricultural Partnerships, Jeff Citrin, EnDyna Inc
- **Oregon Pesticide Stewardship Partnerships: Water Quality Success Story**
Kevin Masterson, Agency Toxics Coordinator,
Oregon Department of Environmental Quality

Session B - Submitted Papers

2:35-3:00p

Salon C

- **Comparison of Drift Potentials Between Air Induction and Conventional Nozzles**
Heping Zhu, USDA Agricultural Research Service, Ohio
- **Outreach and Stewardship Needs for Dry Flowable and Water-Dispersible Granule Formulation Products**
Pat Hipkins, Virginia Tech Technology Research Unit

Session C - Submitted Papers

2:35-3:00p

Swannanoa

- **Using Web Sites to Promote Global Product Stewardship**
William H Hendrix, III, Michael C. Shaw and John R. Fitt, Jr., Dow AgroSciences
- **Reaching Consumer Retailers with Stewardship**
Frank Gaspirini, Responsible Industry for a Sound Environment

Session III A - 3:15-4:45p

Windsor

Needed! An Improved Pesticide Label System for Stewardship

Moderator: Nancy Fitz
US EPA Office of
Pesticide Programs

- **EPA Activities on Stewardship Label Language Improvements**
Jim Roelofs, US EPA OPP
- **AAPCO Discussion of Label Language**
Dave Scott, Office of Indiana State Chemist
- **Regulatory and Industry Constraints on Drift Label Language**
Aldos Barefoot, DuPont and CropLife America
- **Applicator Outreach Issues on Label Language**
Ples Spradley, University of Arkansas, AAPSE President

Session III B - 3:15-4:45p

Salon C

Recordkeeping: Documenting Pesticide Application Stewardship

Moderator: Bob Wolf
Kansas State University

- **Benefits of Recordkeeping** - Bob Bellinger, Clemson University
- **Issues for Changes to Federal Recordkeeping Requirements**
Bonnie Poli, USDA Agricultural Marketing Service
- **How to Educate Applicators on Importance of Keeping "Smart" Items?**
Carol Ramsay, Washington State University
- **What Can TPSA Do to Support Recordkeeping Education and Regulation?**
Gail Amos, Washington State Department of Agriculture

Session III C - 3:15-4:45p

Swannanoa

More Bang for the Buck: Building Disposal Program Sustainability by Adding Services

Moderator: Fred Gabriel
Clean Harbors
Environmental Services

- **Perspectives for Innovative Strategies: Adding Services and Building New Partnerships to Maintain Growth for Hazardous Chemical Collection Programs**
 - Kelby Neal, PSC Industrial Services
 - Eddie Raynard, Greensboro & Guilford County / HHW Council
 - Kenn Webb, ECOFLO Environmental Services
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Session IV A - 8:30-10:00a

Windsor

Pesticide Volatility Stewardship Activities

Moderator: Jerry Krebs
Tessenderlo Kerley

- **Metam Sodium Task Force Update**
David Sullivan, Sullivan Environmental Consulting, Inc
- **EPA Perspectives on Pesticide Volatility**
Veronique LaCapra, US EPA OPP
- **Off-Target Activities of Fumigants**
Vince Hebert, Washington State University
- **The Volatile Organic Compounds Initiative**
Jim Wells, Environmental Solutions Group
- **Good Stewardship Measures to Minimize Airborne Exposures to Agricultural Fumigants: Steps Applicators and Growers Can Take to Anticipate Evolving Environmental Regulations**
David Sullivan, Sullivan Environmental Consulting, Inc

Session IV B - 8:30-10:00a

Salon C

Recycling Plastic Pesticide Containers: Volume Reduction Technologies

Moderator: Don Bradley
Murray Equipment

- **Baling Technologies: Benefits and Limitations**
Sergio Firpo, Azure Technologies
- **Volume Reduction Technologies**
Ron Perkins, Ag Container Recycling Council
- **Open Discussion on Volume Reduction Technologies**
Rick Yabroff, United Agri Products

Session V A - 10:15-11:45a

Windsor

Managing Hazardous Wastes Smarter: Using All Tools at Your Disposal

Moderator: Dan Schweitzer
Care Environmental Services

- **Successful Hazardous Chemical Collection Programs: Using a Wide Range of Tools, Techniques, and Practices to Maximize Efficiency and Serve New Audiences**
 - Tim Taylor, Effective Environmental Inc.
 - Cary Hamilton, New Mexico Department of Agriculture

Session V B - 10:15-11:45a

Salon C

Plastic Pesticide Container Recycling Rules and Approaches

Moderator: Steve Pizzitola
Tri-Rinse Inc.

- **Approaches for Southern States Recycling**
Sam Gibson, USAg Recycling Inc.
- **North Carolina Container Recycling Successes and Challenges**
Henry Wade, North Carolina Department of Agriculture and Consumer Services
- **Container Recycling - An International Perspective**
Cam Deveraux, CropLife Canada
- **Update on EPA's Pesticide Container Recycling Rule**
Nancy Fitz, US EPA OPP

Session VI A - 1:45-3:15p

Windsor

What's in that Container? Case Studies in Specialty Waste Management

Moderator: Roger Springman
Wisconsin Department of Agriculture, Trade and Consumer Protection

- **What's Out There? Approaches for Identification for Packing, Labeling, and Transporting High Hazard Business and Ag Wastes**
 - Joe Hoffman, Washington State Department of Agriculture
 - David Lambrecht, Veolia Environmental Services

Session VI B - 1:45-3:15p

Salon C

Programs Designed to Reach Applicators and Protect the Public/Environment from Pesticide Misapplications

Moderator: Vince Hebert
Washington State University

- **Engaging Growers in Stewardship Actions for Drift Mitigation**
Frank Hall and Roger Downer, Ohio State University
- **Operation S.A.F.E. and PAASS**
Andrew Moore, National Agricultural Aviation Association
- **Spray Safe Program: A Communication Model from Kern County, CA**
Dale Nicol, Syngenta
- **Fumigant Management Plans**
Kurt Volker, Private Consultant
- **Michigan Drift Management Plans**
Brian Rowe, Michigan Department of Agriculture

Session VII A - 3:30-5:00p

Salon C

Stewardship Visions for Dynamic E-Labeling

Moderator: Liza Fleeson
Virginia Department of Agriculture and Consumer Services

- **E-Labeling - What It Is and What It Could Be for Stewardship**
Jim Gray, North Dakota Department of Agriculture
- **Web-based Labeling: EPA Assessment of Possibilities**
Jim Roelofs, US EPA OPP
- **Web-labeling/Stewardship Referrals are Here**
Tami Jones-Jefferson, Dow AgroSciences
- **Stewardship Vision of E-Labeling for the Ag Industry**
Michele Schulz, Syngenta
- **Open Discussion of Prospect for Stewardship and Web-based Labeling**
Carol Ramsay, Washington State University

Session VII B - 3:30-5:00p

Windsor

Pesticide Container Collection Logistics

Moderator: Johnny Berry
Syngenta

- **Container Recycling Survey of Growers, Commercial Applicators and Dealers**
Scott McKinnie, Far West Agribusiness Association
- **Challenges Faced When Designing and Developing A Container Recycling Program**
Rick Yabroff, United Agri Products
- **Open Discussion for Collection Logistics**
Don Bradley, Murray Equipment



The Pesticide Stewardship Alliance

9th Annual Pesticide Stewardship Conference

February 22-25, 2009 • Albuquerque, New Mexico

Save the Date and Join the Conference Planning

Participate by coordinating a SESSION. Consider giving PAPER or POSTER on your stewardship interests!

TPSA's mission: To improve stewardship throughout the pesticide life cycle - increasing effectiveness and efficiency through proper labeling, judicious application, proper handling of empty containers and waste minimization.

Conference objectives: To serve as a forum to facilitate networking and cooperation among parties from around the world who are involved in any aspect of pesticide stewardship to improve program efforts. TPSA seeks individuals with pertinent information from private companies, public entities and organizations who are willing to share their stories, findings, and challenges.

Conference Sessions

- Open to any suggestions related to pesticide stewardship - develop a session or two
- Anticipated Conference Session will include
 - Improving Pesticide Product Labels
 - Managing Hazardous Wastes
 - Recycling Plastic Containers
 - Managing Off-target Pesticide Movement
 - Managing Waste Agricultural Plastics
 - Communicating Stewardship

To become involved, contact info@tpsalliance.org. Visit our web site: <http://tpsalliance.org>

<p>Wednesday 8:30-3:30 Salon C</p> <p>Optional Workshop: Off-Target Movement Modeling: Applications and Limitations</p> <p><i>Moderator:</i> Harold Thistle USDA Forest Service, West Virginia</p> <p><i>Goal:</i> Showcase new, current, and revised spray drift and vapor movement models and discuss their unique applications and limitations.</p>	<p>8:30 am Model Presentations</p> <ul style="list-style-type: none"> • SprayAdvisor Jackie Strager, West Virginia University, Morgantown, WV, USA • Bystander Exposure to Drift from Ground Spraying Clare Butler-Ellis, The Arable Group, Silsoe, UK • Empirical Modeling of Deposition from Ground Spraying David Nuyttens, Institute for Agricultural and Fisheries Research (ILVO), Merelbeke, Belgium • Swath Offset Modeling & Integrated Avionic Systems William Reynolds, Leading Edge Associates, LLC, Lake Mary, FL • Modeling Emissions and Dispersion of Volatile Pesticides David Sullivan, Sullivan Environmental Consulting, Inc., Alexandria, VA • Modeling of In-canopy Dispersion of Pheromones Using a Puff Model Tara Strand, Pacific Wildland Fire Sciences Lab, USDA Forest Service, Seattle, WA <p>10:00 Break</p> <p>10:15 Model Presentations</p> <ul style="list-style-type: none"> • Status and Applications of the AGDISP/AgDrift Modeling Systems Harold Thistle, USDA Forest Service, Morgantown, WV, USA • WTDisp and the Use of Wind Tunnels in Estimating Drift from Ground Sprayers Andrew Hewitt, University of Queensland, Gatton, Queensland, AU • Using FLUENT to Model Pheromone Movement in Plant Canopies Steve Edburg, Washington State University, Pullman, WA, USA • The EPA Ground Sprayer Deposition Model Milt Teske, Continuum Dynamics Inc., Ewing, NJ, USA • DriftSim Ground Sprayer Spray Drift Model Heping Zhu, Application Technology Research Unit, USDA-ARS, Wooster, OH, USA <p>11:15 Interactive Session with Models Available to View Modeling stations for attendees to mix with the modelers and get hands on experience with the various approaches</p> <p>12:00 Lunch</p> <p>1:00 Afternoon Session and Panel Open discussion to review issues, data gaps and general needs of the community with regard to existing models.</p> <p>3:30 Adjourn</p>
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<p>Wednesday 8:30-3:30 Victoria</p> <p>Optional Workshop: Beyond DOT: Hazardous Waste Shipment in a Multi-Stream World</p> <p><i>Moderator:</i> Derrick Bell North Carolina Department of Agriculture and Consumer Services</p> <p><i>Goal:</i> Bring attendees current on rules, regulations, and scenarios involved with transporting regulated and non-regulated, mixed materials across state and county lines</p>	<p>8:30 am</p> <ul style="list-style-type: none"> • Compliance Issued for Hazardous Materials Transportation Anthony Cellucci, Director, Transportation Compliance, Clean Harbors Environmental Services • US DOT and Hazardous Materials Transportation Art Ramsey, Special Agent, USDOT Federal Motor Carrier Safety Administration • State Transport of Hazardous Materials Trooper G.A. Bursleson, Master Trooper, North Carolina Highway Patrol <p>12:00 Lunch</p> <p>1:00 Continue Workshop</p> <p>3:30 Adjourn</p>
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Abbreviations Used in the Program:

AAPCO: Association of American Pesticide Control Officials
 AAPSE: American Association of Pesticide Safety Educators
 ACRC: Ag Container Recycling Council
 TPSA: The Pesticide Stewardship Alliance

US DOT: United States Department of Transportation
 US EPA FEAD: Field and External Affairs division of US EPA Office of Pesticide Programs
 US EPA OPP: United States Environmental Protection Agency, Office of Pesticide Programs
 VOC: Volatile Organic Emissions