# TOPICS

# **Bystander exposure to 2,4-D** is not big threat, study claims

**Canadian study reaffirms** importance of reading the label, wearing protective clothing.

GUELPH. ONT. Canada-Professional applications of 2,4-D to home lawns pose little exposure risks for homeowners and bystanders.

That was one of the findings of researchers at the University of Guelph. Directing the study were Dr. Keith Solomon, Dr. G.R. Stephenson, Shelly Harris, and Dr. Christopher Hall.

Hall, director of the Guelph Turfgrass Institute, recapped these findings at the PLCAA Convention this past November.

His message was encouraging to the 150-plus lawn and landscape professionals

in the room. Most use products containing 2.4dichlorophenoxyacetic acid, a popular broad-leaf weed control.

"If you do things right, there's not a lot of (2,4-D) exposure risk," emphasized Hall.

Actually, the Guelph studies investigated more than bystander exposure. They also measured 2,4-D exposures received by applicators—both homeowner and professional.

As part of the project, Dr. Hall: 'In Canada, like the

wore regular regular clothing. The other group of applicators received detailed instruction and wore protective clothingrubber gloves and boots, coveralls, etc.

A granular formulation of fertilizer (10:6:4) with 1% 2,4-D was used for the spring application, and a liquid formulation of 2,4-D for the fall application. Then for 96 hours following the applications. the researchers collected urine samples from the volunteers to measure 2,4-D exposures.

Measureable exposures occurred to applicators who hadn't worn protective clothing during hose-end applications. Only in a few cases could 2,4-D be detected in those who had worn protective clothing while working with liquid 2,4-D.

"The take-home message is to wear protective clothing," said Hall.

It didn't seem to matter much in applications of the granular product, since 2,4-

D couldn't be detected in

"If you are an inexperienced applicator, probably the best way to go is with the granular formulations," Hall suggested.

In related investigations, 10 vounteers (five in long pants, short-sleeved shirts, socks and shoes, and five wearing shorts and barefooted) alternately walked, sat and lay down on 2,4-D-sprayed turf an hour after application.

Four days later, detectable residues were found in in urine samples supplied by three of the barefooted people.

When the volunteers waited 24 hours after a spray application to repeat their activities on the treated turfgrass, no detectable residues were found on any of

Hall said that people can reduce their potential exposure to essentially zero by staying off treated turf for a period of 24 hours or until after rainfall or irrigation.

-Ron Hall



each year than pesticide applications. Yet nobody protests recreational bowling.

Why?

The answer lies in the makeup of the collective human psyche which sees voluntary and familiar risks—even obvious ones such as smoking and drinking—as somehow less threatening than less-wellunderstood risks, says Rossi, an experienced environmental educator.

Bowling, therefore, is the type of risk the public is willing to accept. Pesticide use sometimes is not.

"People are not certain about what we're doing, and that's what makes them uneasy," says Rossi, a New York City native and former golf superintendent. "We want people to have a better understanding of what we do."

In fact, Rossi feels it's not chemicals themselves that frighten the



some of the volunteers United States, we had a lot of applied 2,4-D materials trouble with people's percepas a layman might, with tion about the health risks scanty instruction. They associated with 2,4-D.'

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public. "Most of the public will not have the ability to decipher technical or toxological information anyway," he says. What generates outrage is the perception by some individuals that they "don't get to choose how our chemicals get into their lives," says Rossi.

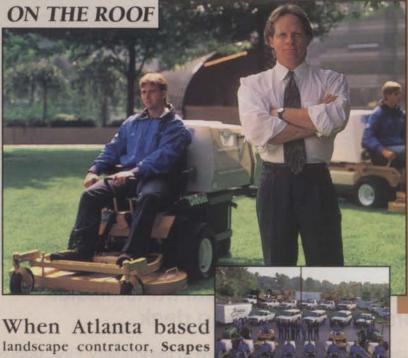
The solution: professional pesticide users must acknowledge the concerns of customers, and meet these concerns with accurate, easy-to-understand information, says Rossi. Then, to the extent that they can, they should give customers the power to choose how pesticides are used in their immediate environments.

Rossi is an assistant professor of turfgrass environmental management at the University of Wisconsin-Madison. He spoke at both the PLCAA Convention, Indianapolis, and Ohio Turfgrass Conference, Cincinnati, this past fall.

Dr. Rossi: professional pesticide users need to help the public understand that the dose makes the poison.



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## **GREEN INDUSTRY** EVENTS

#### **FEBRUARY**

15: Georgia Golf Course Superintendents Assn. Spray Technician Seminar, The Standard Club, Duluth, Ga. Phone: (706) 769-4076.

16-March 16: Irrigation Association Short Courses: Feb. 16-17, Phoenix: Feb. 18-19, Los Angeles; Feb. 23-24, Denver; Feb. 25-26, Dallas; March 1-2, Houston; March 4-5, Seattle; March 8-9, Orlando; March 11-12, Connecticut; March 15-16, Toronto. Phone (703) 524-1200.

18: Turf & Grounds Exposition II, Holiday Inn, Suffern, N.Y. Phone: (800) 873-8873 or (518) 783-1229.

18-23: National Arborist Association Management Conference, The Registry Resort, Scottsdale, Ariz. Phone: (800) 722-2622

22: Georgia Golf Course Superintendents Assn. Spray Technician Seminar, Doublegate C.C., Albany, Ga. Phone: (706) 769-4076.

22: New York Landscape Association Education Day and Trade Show, Holiday Inn Turf, Albany, N.Y. Phone: (518) 783-1322.

23-24: Landscape Industry Conference and Trade Show, Hammons Trade Center, Holiday Inn I-70 East, Denver. Phone: (303) 757-5611.

23-26: International Erosion Control Assn. Conference & Trade Expo, Indianapolis Westin Hotel, Phone (303) 879-3010.

24: New Jersey Landscape '93, Meadowlands Convention Center, Secaucus, N.J. Phone (201) 664-6310.

24-25: Landscape Industry Show, Long Beach (Calif.). Phone: (916) 448-2522

24-26: Landscape Design Short Course. Sheraton Inn, Mars, Pa. Phone: Michael Masiuk at (412) 392-8540.

24-26: "Diversity: Recognizing Reality" Workshop of the Landscape Contractors Association of Md, DC, Va; Holiday Inn Crowne Plaza, Rockville, Md. Phone: (301) 948-0810.

27: Long Island Arboricultural Association Annual Tree Conference, SUNY Farmingdale, Long Island, N.Y. Phone: (516) 783-1001.

#### MARCH

4: Midwest Chapter/STMA Annual Meeting, Elk Grove, Ill. Phone: Mike Schiller at (708) 439-4727 or Mike Trigg at (708) 360-4750.

4-5: USGA Golf Course Wastewater Symposium, Newport Beach, Calif. Phone: Dr. Kim Erusha at (908) 234-2300.

4-5: Muni-Golf Course Developments,