
Toxicity and Dose Determine A Substance's Risk

Elliot Maras, Editor
Lawn Care Industry

Noted Researcher says all chemicals, natural and synthetic, carry risk

LOUISVILLE— Chemical consultant Wendell Mullison gives a dose of perspective to the current furor over risks associated with pesticide use. That dose is dose itself — which, combined with toxicity, determines how dangerous a substance is.

Mullison, a consultant for the Dow Chemical Co., spoke on the misinformation surrounding pesticides to the Kentucky Agribusiness and Pesticide Workshop in Louisville.

He referred to a phrase coined in the 15th Century by the alchemist, Paracelsus— "The dose makes the poison."

"This is a very, very important concept," Mullison said. All chemicals, natural and synthetic, in some dose, are dangerous. Teargas, for example, is a very toxic substance, but not harmful in the dosage it is used in.

"The real thing that makes a difference is you and me — how do we handle it?" he said.

Mishandling of pesticides should not be allowed, Mullison said. He said 2,4-D was recently sprayed near a playground where children were playing, an action that should never have been allowed.

As for the actual danger posed by 2, 4-D in its labeled use, Mullison said the public is perfectly safe. While one study has raised some

questions about its safety, the conclusions of that study have been disputed by three out of four epidemiologists contracted by the U.S. Environmental Protection Agency.

In addition, Mullison said, 40,000 scientific papers have been written on 2,4-D, making it one of the best studied compounds in any industry.

"If we were to use the same standards for governing our toxic chemical in food as we do in pesticides," he said, "a Thanksgiving meal would be reduced to sour cream, lettuce, crackers and an empty patty shell."

One of the great misconceptions is that natural substances are safer than synthetic ones, Mullison said.

Mullison also cited statistics from the U.S. Poison Control Centers showing very few hospitalizations have been connected to pesticides.

Source: Lawn Care Industry, June 87



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"I want to buy a used car I saw advertised but I am afraid there might be a lot of things wrong with it," the young man told his friend.

"Do what I do," she said, "I have the perfect system for finding all of the defects out before I buy a used car."

"That's remarkable. How do you do it?"

"I take the car out on trial. Then I drive it to another dealer and tell him I am interested in selling him the car."