

Why Use Pesticides in an Anti-Pesticide Society?

Fred Whitford

Purdue University Cooperative Extension Service

For decades, discussions among scientists and the public have focused on the real, predicted, and perceived risks that pesticides pose to people and the environment. Each use of a pesticide poses some level of risk, so it is not surprising that scientists, the regulated community, government officials, and the public need a realistic understanding of the risks associated with pesticide use. We must analyze how risk is assessed, identify the risks, and determine an appropriate level of concern.

There are significant risks associated with leaving certain pests uncontrolled; and, in some cases, pesticides are the only viable alternative. Properly used, pesticides provide benefits essential to our way of life. Uncontrolled pests can cause serious consequences:

- A person bitten by mosquitoes carrying West Nile virus may die.
- A child stung by bees, wasps, or ants may suffer a severe allergic reaction.
- A dog infested with fleas may become stressed to the point of illness.
- A farmer's diseased tomatoes may be declined by the cannery.
- A load of wheat contaminated with wild garlic may be rejected by the mill.
- A homeowner may have to spend thousands of dollars to repair structural damage caused by termites.

The benefits of pesticides commonly go unnoticed by the public. For example, if left unchecked, trees and brush growing beneath power lines would cause power outages. Herbicide use by utility companies to prevent undergrowth eliminates the problem and provides unobstructed access for maintenance and repairs. Road crews also use herbicides to control vegetation along highways, for safety reasons; clear roadsides increase visibility for drivers and allow water to escape more efficiently during a downpour or flooding. Herbicides also are used to fight invasive weeds in parks, wetlands, and natural areas.

Pesticides are used around our homes and businesses in ways we often take for granted. Plastics, paints, and caulks may contain fungicides to prevent mold. Toilet bowl cleaners and disinfectants often contain pesticides. Raw commodities and packaged grocery products — the foods we eat — are protected from insect contamination by the controlled use of insecticides in processing, manufacturing, and packaging facilities. Pesticides are used in grocery stores to manage insects and rodents attracted to food and food waste. There is little doubt that the proper use of pesticides improves our quality of life, protects our property, and promotes a better environment.

People who argue against the use of pesticides believe that pest elimination can be achieved without their use. While this may be true in a few isolated situations, most pest management programs around the home, on the farm, aboard planes and trucks, and in parks and natural areas rely on a combination of nonchemical and chemical control methods.

Nonchemical pest management alternatives certainly lessen the need to use pesticides, but they

cannot totally eliminate it. Neither pesticides nor nonchemical alternatives such as host plant resistance, timing of planting, painstaking sanitation efforts, etc., offer permanent solutions in all cases. The most effective strategy is an integrated pest management approach.

We must understand both the benefits and the risks of pesticides in developing integrated pest management strategies. Reduced exposure and finely tuned pesticide product selection minimize negative impacts of pesticide use to humans and the environment. Although it may be difficult to convey to the public a sense of balance among pesticide benefits and risks, this issue is central to America's discourse on the continued use of pesticides. Making an informed decision — whether public policy or individual choice — is impossible without evaluating the benefits of use alongside the risks.

More information on this subject can be found in the following Purdue Pesticide Programs publications: *Pesticides and Risk Communication* (PPP-52), *Communicating With the News Media* (PPP-60), *The Benefits of Pesticides: A Story Worth Telling* (PPP-70) and *The Pesticide Marketplace: Discovering and Developing New Products* (PPP-71). They can be downloaded at www.btny.purdue.edu/ppp or ordered from the Purdue University Media Distribution Center (address on PPP website).