

Washington Friends of Farms & Forests

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What everyone should know about pesticides and their regulation

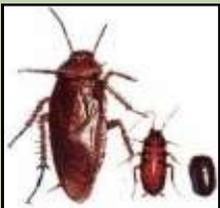
**“Cockroaches
found in an
Olympia middle
school cafeteria.”**

**“Child bitten by
rat on playground
in Snohomish
County.”**

**“Invasive, tree-
destroying moth
discovered in
Pierce County.”**

You may not have seen these headlines, but they are a small sample of why pesticides are used to protect human health, crops and the environment.

Cockroaches have been shown to carry the pathogens that cause tuberculosis, cholera, dysentery, and typhoid, as well as over 40 other bacteria (like salmonella) and viruses that can cause disease.



Why use pesticides?

Pesticides are like environmental medicines. They help protect lands and crops from weeds, insects and diseases in much the same way pharmaceuticals protect people from diseases.

Without pesticides, it would be far more difficult to keep cockroaches out of restaurant kitchens, rodents out of stored food, and weevils out of flour. Pesticides protect people by preventing mold, mildew and bacteria, and controlling insects such as mosquitoes — carriers of West Nile virus. Wildlife habitat benefits from the use of pesticides to control the spread of invasive weeds that choke out native plants on which animals graze and nest.

Pesticides allow our farmers to produce bountiful and affordable food for their families, community and every state in the country, as well as for export around the world.

The Asian gypsy moth devours the leaves of more than 500 species of trees and shrubs. It was first discovered in this state in 1991 on a ship visiting the Port of Tacoma.

*Washington State
Dept. of Agriculture*



How are pesticides tested?

The Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) enforce the most stringent regulatory systems in the world to ensure safe food and proper use of insecticides, fungicides, and herbicides. Before a pest control product can be sold or used in Washington, it must be registered by the EPA and the State Department of Agriculture. More than 120 tests are required on each product to evaluate safety for people and the environment. The development and testing process for a new pesticide takes 8-10 years to complete and costs manufacturers \$150 million per product.

The testing process includes toxicology testing in animals to determine acute and chronic effects, effect on reproduction, and any mutagenic or carcinogenic effects. Tests are conducted on both raw commodities and on processed foods. Environmental tests determine how the product breaks down in soil, water, air, and plants to ensure protection of wildlife and the environment. Ecological effects are tested to ensure the safety of birds, aquatic life and plants. All tests must be conducted according to Good Laboratory Practice standards as determined by the EPA. If tests are not conducted properly, the EPA will not register the product. Even though pesticides are fully tested before they can be sold or used, testing is ongoing. As

Pesticide testing (cont.)

science advances, more tests may be required to evaluate specific concerns.

When Congress passed the Food Quality Protection Act (FQPA) in 1996, additional safety factors specifically designed to protect infants and children were added to the testing and evaluation process. FQPA established a new standard for pesticides “a reasonable certainty that no harm will result from aggregate exposure.”

Aggregate exposure means that EPA now considers all the ways someone might be exposed — through food, treatments around the house, in water, etc. EPA reviews all available data and approves only label directions that meet the new standard “reasonable certainty of no harm.”

The label EPA issues for each product is a legal document. Failure to follow label directions is a violation of law. The Washington State Department of Agriculture has an enforcement division to ensure users follow the label.



Each year, more than 45,000 people, mostly infants and children, are treated for rat bites.

Responsible Industry for a Sound Environment

What about inert ingredients?

Inert ingredients must also be tested and approved by EPA. Many inerts are soaps or vegetable oils. Inerts are added to help the pesticide work better by stabilizing the formula, helping it stick to the plant, or helping it stay in solution. Similar types of ingredients are added to cosmetics and shampoos for similar reasons. Before registration, the product must be tested in its final formulation and approved by EPA.

What about cancer?

The American Cancer Society says, “There is no scientific evidence supporting a link between the proper application of pesticides and any ill effects in humans. Moreover, there is no evidence that the approved use of pesticides contributes in

any way to human cancer.”

EPA evaluates all data to insure that the product is not carcinogenic. Their standards are updated as scientific analyses improve and develop. The American Medical Association states that there is only conjecture at best that pesticides may be carcinogenic. The best way to reduce risk of cancer is to exercise and eat a diet rich in fresh fruit and vegetables.

The dose makes the poison.

Caffeine, vitamins, and other substances are beneficial in small doses but harmful in large amounts. Chlorine (a pesticide) added to swimming pools in small amounts prevents bacteria from growing, but too much is harmful. The same is true with other pesticides. Small amounts, used correctly,

provide benefits and are safe to use. Exceeding or violating label directions can be harmful.

In the 1950’s, scientists could measure to the level of one part per million. Today, scientists can measure to one part per trillion. (One part per million equals one inch in 16 miles. One part per trillion equals one inch in 16 million miles.) With today’s technology, we can detect many more substances than we once could. However, because something can be detected does not mean it is harmful.

Dr. Roberta Cook, University of California, Davis, stresses that scientific surveys repeatedly show that pesticide residues in foods are 100 to 1,000 times lower than levels considered safe by the World Health Organization.

Who uses pesticides?

Most pesticides are applied by professional applicators who must pass a state test and receive a license to legally apply pesticides. They are then required to attend continuing education classes to retain their license.

For more information contact:

Washington State Dept. of Agriculture:
1-877-301-4555

Washington Poison Center: 1-800-222-1222

National Pesticide Information Center:
1-800-858-7378
npic@ace.orst.edu

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