



# COLORADO ENVIRONMENTAL PESTICIDE EDUCATION PROGRAM

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## PESTICIDES AND FOOD SAFETY

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This fact sheet covers food safety issues including pesticide residues in food, regulation of food safety, and food handling tips.

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## Pesticides and Food Safety

The U.S. food supply is among the safest, most plentiful and most affordable in the world. To produce this high-quality produce, most farmers use some pesticides. Pesticides have enabled growers to produce crops profitably in otherwise unsuitable locations, extend growing seasons, increase crop yields, maintain product quality, and extend shelf life. Nevertheless, these chemicals pose some risks if used improperly which is why state and federal agencies strictly regulate pesticide use. Minimizing exposure to chemical residues from pesticides is an important food safety issue.

### Is food grown with pesticides safe to eat?

Most food grown with pesticides has little or no detectable pesticide residue by the time it reaches the supermarket. The health benefits of eating fruits and vegetables outweigh the **risk** posed by traces of pesticides normally encountered.

The exceptions to this are infants, small children, and sensitive individuals. The diets of infants and children may differ substantially from those of adults and they consume more food for their size than adults. Children and sensitive individuals may also eat large amounts of one fruit or vegetable. As a result, they may be exposed to proportionately more pesticide residues. The Food Quality Protection Act (FQPA) addresses these differences with an additional margin of safety to protect infants, children, and other sensitive individuals.



### What do we mean by risk?

- Risk is the chance or probability of an undesirable event taking place. We drive our cars to work in the morning even though there is some risk that we will be injured or killed in an accident.
- Everything we do has some element of risk. We all take the risk of getting out of bed in the morning. But few of us take the risk of racing cars.
- We feel more comfortable with risky activities that are common in our lives and over which we feel some degree of control. Pesticides in food are undetectable by us and beyond our control, causing many of us to be uneasy.
- Ultimately, each of us must decide what risks we are willing to accept for our dependents and ourselves. This includes the risk of consuming pesticides on otherwise nutritious food.

### Who determines that pesticides are used safely?

- The [Environmental Protection Agency](#) (EPA) registers pesticides and determines maximum residue levels. Toxicity studies are part of the pesticide registration procedure.

- The [Food and Drug Administration](#) (FDA), [U.S. Department of Agriculture](#) (USDA) and [Colorado Department of Agriculture](#) (CDA) monitor pesticide levels in food.

### **How can I be sure my food is completely safe?**

If by “completely safe” you mean “without risk,” that cannot be done. All activities carry some degree of risk. Our aim should be to minimize risk from pesticide contamination in food.

### **Is imported food safe?**

Any fruits or vegetables sold in the U.S. must meet the same safety standards, regardless of source.

### **Why are pesticide residue levels in foods relatively low?**

- Simply because a pesticide is registered, it doesn't mean that it will be used. Application of pesticides is expensive to growers; if they can manage to get by without using pesticides, they will.
- The edible portion of the plant is not always exposed to the pesticide. In many cases, pesticide applications are made before the plants have emerged or prior to formation of edible fruits and leaves.
- Tolerance levels are established under the most severe conditions of use. Many pesticides are used at lower application rates, with fewer applications, and with longer intervals between application and harvest than are mandated by law. The fact that very few samples contain residues in excess of the established tolerance demonstrates that pesticides are typically used in compliance with regulations.

### **Food handling tips**

While pesticide residues on and in food are typically at very low levels, there are ways you can further reduce them:

- Rinse fresh fruit and vegetables thoroughly under running water. Although some pesticides are absorbed into fruits and vegetables, many residues (when present) are found on the surface. Washing will remove most surface waxes and residues, along with dirt and microbial contamination. Peeling fruits and vegetables also removes surface residues.
- Do not use soap to wash produce. Most soap is not meant to be consumed and can cause intestinal problems.
- Throw away outer leaves of leafy vegetables.
- Cooking or baking foods further reduces some pesticide residues.

### **References and Resources**

*For Your Information: Protecting the Public from Pesticide Residues in Food.* 1998. Environmental Protection Agency, Office of Pesticide Programs, Washington, D.C.

*Pesticides and Food Safety.* 1998. California Environmental Protection Agency, Department of Pesticide Regulation, Sacramento, CA.

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