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Pesticide Regulation Helps Provide an Abundant, Safe Food Supply

Now more than ever consumers are concerned with the safety of their food supply. In the past few years, there has been an increasing perception that chemicals in foods, especially pesticides, may affect consumers' health.

Chemicals in our food can occur naturally or can be introduced by man. Naturally occurring chemical components of fruits and vegetables may be toxic. They serve as defense mechanisms against herbivorous animals, insects, bacteria and fungi. Natural chemicals can also occur as contaminants of foods, such as the toxins of microorganisms. Man-made chemicals can become part of our food supply from a number of sources: pesticides and fertilizers, chemicals that are produced during processing and/or added (i.e. additives) and chemicals that leach from food-packaging materials.

Of all the chemicals in our food supply, natural chemicals are considered to be a much greater risk than all the other chemicals combined. This is because we are ingesting at least 10,000 times more natural chemicals than man-made chemicals (by weight).

Regulated pesticide use on food crops has long provided the availability of an adequate food supply affording tremendous health and economic benefits to this country.

Although we have the safest, most wholesome food supply in the world, it is not absolutely safe. The concept of zero-risk or absolute safety is certainly ideal, but in an imperfect world, unattainable. Therefore, we need to accept the realities of risk as part of our daily lives and make knowledgeable decisions that offer the greatest benefit with the least amount of risk.

Our ability to better understand regulation of pesticide residues in our food supply will enable us to make informed decisions when comparing risks and benefits and determining the degree of risk we are willing to accept.

The U.S. Environmental Protection Agency (EPA), U.S. Food and Drug Administration (FDA) and state regulatory agencies enforce one of the most stringent regulatory systems in the world to ensure the safety of our produce.

- Each EPA-registered pesticide undergoes 120 or more tests designed to determine human health, safety and environmental effects.
- On average, only one in 20,000 chemicals ever makes it from the laboratory to the farmer's field.
- Pesticide development, testing and EPA registration take eight to 10 years to complete and cost manufacturers \$35 million to \$50 million per final product.
- Farmers today use a sophisticated range of scientific practices, called Integrated Pest Management, to nurture and protect their crops, soil and water. They include such things as soil sampling, crop rotation and judicious use of natural and manmade products.

But just how safe is safe? The following example clearly emphasizes the lifetime safety levels built into our food protection system by the federal government. A 40-lb. child could eat 340 oranges every day for the rest of her life and still not consume the amount of pesticide residues found to cause health problems in laboratory mice.

Crop protection products help protect our food from hundreds of insects, plant diseases and weeds. Without their use, America's abundant supply of food – especially fresh fruits and vegetables – would be greatly reduced, and much more expensive.

It is for these reasons that Dr. Bruce Ames, a biochemist and molecular biologist at the University of California, calls pesticides an “anti-cancer weapon,” reports the New York Times. By providing an abundant food supply, he says, crop protection products enable people to consume more foods that appear to protect against cancer.

The benefits of pesticides reach far beyond our affordable supply of fresh fruits and vegetables. By enabling farmers to produce more food in a smaller area, pesticides also help reduce the amount of cropland needed, reducing soil erosion and preserving fragile ecosystems for endangered plants and wildlife.

“Our food supply is not only the safest, but it is the most abundant in the world and pesticides are one of the important tools that have made that abundance possible.” Dr. C. Everett Koop, MD., Former U.S. Surgeon General.

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