Ask The Expert

Plant Biotech 101: The Basics Of Plant Biotechnology

(NAPSA)—*"Ask an Expert" provides readers with answers to frequently asked questions about food biotechnology. Mary Lee Chin, a registered dietitian and nationally recognized consultant on nutrition trends and health and food issues, will explain how plant biotechnology helps both farmers and consumers.*

What is Plant Biotechnology?

Every living thing contains a genetic "blueprint" or set of instructions to determine specific characteristics. In plants, this blueprint helps determine a food's specific traits, including color, taste and texture.

For hundreds of years, humans have improved plants by breeding for certain traits. Even the ancient Egyptians and early American Indians selected and sowed the seeds from plants with desired characteristics, combining them with other desired qualities to attain the best results. While effective, this traditional approach to plant breeding involves the random crossing of hundreds of thousands of genes to get the desired traits in a new plant—a process that can be costly and time consuming.

Today, researchers can achieve the same kind of genetic exchange through biotechnology, but with greater precision and efficiency. New plants with desirable traits can be developed and will offer traits not possible through the traditional breeding process. South Carolina farmer David Winkles, Jr., says U.S. farmers and consumers are reaping the benefits of biotech crops that have been developed to withstand devastating plant pests, such as insects, weeds and diseases, and help him plow and spray his fields less.

Recent research by the National Center for Food and Agricultural Policy shows biotech crops, including corn, soybeans, papaya and squash grown in 2001, increased crop yields by 4 billion pounds, saving farmers $1.2 billion by lowering costs and reducing pesticide use by 46 million pounds. Researchers also determined that current biotech crops, as well as those in various stages of development, can improve farm income and reduce pesticide usage even further.

Biotech soybeans offer farmers an effective way to control weeds while plowing and spraying less.

Biotechnology also has the potential to deliver more nutritious, plentiful and potentially lifesaving foods. For example, tomatoes with more cancer-fighting antioxidants and oil seeds that produce oils with lower saturated fat content are in development. "Golden" rice also promises to provide children in developing countries with added beta-carotene to stave off vitamin A deficiency, which causes blindness and even death.

For centuries, farmers have worked diligently to improve the food and fiber they grow. Biotechnology offers a more precise and efficient way to develop plants that will help feed and clothe a growing world population with reduced pesticide.

For more information about plant biotechnology, visit www.whybiotech.com.