

# Biotechnology: Basic

What has come to be called "biotechnology" and the genetic enhancement of agricultural products may be one of the oldest human activities. For thousands of years, from the time human communities began to settle in one place, cultivate crops and farm the land, humans have manipulated the genetic nature of the crops and animals they raise. Crops have been bred to improve yields, enhance taste and extend the growing season.

Each of the 15 major crop plants, which provide 90 percent of the globe's food and energy intake, has been extensively manipulated, hybridized, inter-bred and modified over the millennia by countless generations of farmers intent on producing crops in the most effective and efficient ways possible.

Today, biotechnology holds out promise for consumers seeking quality, safety and taste in their food choices; for farmers seeking new methods to improve their productivity and profitability; and for governments and non-governmental public advocates seeking to stave off global hunger, assure environmental quality, preserve bio-diversity and promote health and food safety.

"Biotechnology's been around almost since the beginning of time. It's cavemen saving seeds of a high-yielding plant. It's Gregor Mendel, the father of genetics, cross-pollinating his garden peas. It's a diabetic's insulin, and the enzymes in your yogurt...."

Without exception, the biotech products on our shelves have proven safe."

U.S. Agriculture Secretary Dan Glickman; March 13, 1997

## Sources and Links

1. Micklos, D.A. & Freyer, G. A., DNA Science: A First Course in Recombinant DNA Technology. Cold Spring Harbor Laboratory & Carolina Biological Supply Company. 477 pp. Available from: Cabisco Biotechnology, 2700 York R., Burlington, NC 27215; 800-3345551 or 800-632-1231 (NC only).
2. NABT Sourcebook of Biotechnology
3. Bud, Robert, "Janus-faced Biotechnology - An Historical Perspective", Trends in Biotechnology v. 7, 1989, p. 230-33
4. Torrey, John G., "The Development of Plant Biotechnology", American Scientist, 1985, 73:354-363
5. Goodman, David C., From Farming to Biotechnology: A Theory of Agro-industrial Development Oxford: Blackwell, 1987
6. Seabrook, John, "Tremors in the Hothouse", The New Yorker July 19, 1993 p. 32-41

