



# Food For Thought

TIPS ON TASTE, NUTRITION & HEALTH



## Feeding The World Requires A Second Green Revolution Ⓟ

(NAPSA)—At current growth rates, the world's population will increase from 6 billion people today to 9 billion by mid-century. To feed this growing population, the world's farmers will have to grow twice the amount of food they do today, even as arable land and freshwater become scarcer. How will they do it?

Feeding a growing global population is not a new problem. In the early 20th century, the developing world was facing issues similar to those we face today. Disaster was averted thanks in part to the development and introduction in the 1950s of high-yield, disease-resistant varieties of wheat, first in Mexico and later in Pakistan and India. The introduction of these new high-yielding varieties and modern agricultural production techniques fomented a "Green Revolution" that saved millions from starvation.

To meet looming global food security challenges will require a second Green Revolution. Thankfully, the technology to enable a second Green Revolution is at hand. Leading agricultural companies such as Syngenta are already helping farmers grow more from less by developing new corn hybrids and soybean varieties that

are disease and insect resistant, as well as seed care and crop protection products that further improve a plant's ability to thrive in the face of pressures from insects, weeds, disease and environmental factors. For instance, the company has introduced a seed care product that enables wheat to use 35 percent less water. In corn, its Agrisure Artesian™ corn trait has demonstrated the potential to deliver 15 percent yield preservation under drought stress.

Such advances can help produce enough food to feed a growing population, conserve water resources and protect the environment. "Agricultural biotechnology can improve crop productivity, secure and improve yield and produce higher-quality crops, and offers environmentally friendly solutions to the challenge facing farmers—to grow more from less. It is critical to the sustainability of agriculture," said David Morgan, president, Syngenta North America.

Modern agricultural technology's ability to do precisely that has been demonstrated best in the United States, where farmers have long reaped the benefits. From 1987 to 2007, corn yields averaged gains of 2.2 bushels per

acre per year—a 41 percent increase in productivity. Soybean yields climbed an impressive 29 percent.

At the same time as these dramatic increases in productivity, stress on the environment fell. Soil runoff, which the Environmental Protection Agency identifies as the primary cause of water pollution, has declined approximately 69 percent per bushel of corn since 1987. Irrigation water use in corn farming has declined 27 percent and energy use has decreased by 37 percent.

Using these advances in developing countries could significantly boost world productivity. Experts estimate that practicing modern farming methods and technologies in Asia could boost productivity some 20 percent in just 10 years. In the past 10 years, Brazil has nearly doubled soybean production on the same amount of land. In Russia and Ukraine, winter wheat yields rose 75 percent in one program following the adoption of modern crop protection technology.

The challenge to double food production may seem daunting, but history shows that with sound science, agricultural productivity can outpace a growing population.