

Biotech Crops' Contribution to U.N. Millennium Development Goal and a More Sustainable Agriculture

As the U.N. Millennium Development Goal nears, it is useful to look at biotechnology's contribution toward the goal of reducing poverty and hunger by 50 percent by 2015, and to a more sustainable agriculture in the future.

- **Increasing global crop productivity to improve food, feed and fiber security and sustainability:** In the first 11 years of biotech crops, yield gains in the key commodities were valued at \$34 billion. Production increases will continue with the introduction of the very important drought-tolerant crops in the next decade, as well as more nutritious crops like soybeans enhanced with omega-3 oils and rice with enriched vitamin A content.
- **Contributing to the alleviation of poverty and hunger:** 50 percent of the world's poorest are small farmers and another 20 percent of the rural landless are dependent on agriculture. Already biotech cotton and biotech white maize are contributing modest socio-economic benefits to these groups. The expected near-term approval of Bt eggplant in India and potential for biotech rice in China would substantially further these efforts.
- **Reducing the environmental footprint of agriculture:** Already biotech crops have cut pesticide use, decreased carbon dioxide emissions and saved fossil fuel use due to less tillage and spraying. In 2006, biotech crops saved 14.8 billion kg of carbon dioxide, equivalent to removing 6.5 million cars from the road. In the next decade, crops with increased drought tolerance will help limit water use and greater nitrogen efficiency will help improve use of this important nutrient.
- **Mitigating climate change and reducing greenhouse gases:** Biotech crops already contribute to reduced carbon dioxide emissions. Biotech crops that can be developed faster to meet more rapid changes in climate are in development. Further, use of biotech poplar trees, already planted in China, and faster growing trees that are in development can make a substantial contribution in the world's need for quick re-forestation to help mitigate the effects of global warming.
- **Contributing to the cost-effective production of biofuels:** Biotech crops help optimize the crop and biomass production per hectare to help supply the world's demands for more affordable food, feed fiber and biofuel products.