

**UNITED SOYBEAN BOARD**

# BIOTECHNOLOGY & BEING GREEN



Everywhere you look, from the biggest businesses to everyday families, people are making an effort to be “green” – whether it’s turning off lights and computers when leaving the office, recycling at home or adopting agricultural biotechnology as a farmer.

Farmers strive to find ways to provide enough food for current and future generations, while also being stewards of the environment. Biotechnology is a powerful way to accomplish feeding the world in a sustainable manner.

## NO MORE PLOWING THE LAND ON TODAY’S SOY FARMS

**Crops derived from agricultural biotechnology significantly reduce the emission of carbon dioxide (CO<sub>2</sub>) into the environment.**

Biotech crops like soybeans that are resistant to herbicides allow farmers to almost completely eliminate plowing on their fields, resulting in many environmental benefits: **better soil health and conservation, improved water retention/decreased soil erosion and decreased herbicide runoff.**

The practice of tillage – agricultural preparation of the soil by plowing, ripping or turning it – has practically become a thing of the past on U.S. soybean farms, largely thanks to herbicide-tolerant

crops developed through biotechnology. With no-till farming, the usage of machinery in fields and farms is drastically reduced, resulting in significantly reduced greenhouse emissions from farm equipment.

The reduction in CO<sub>2</sub> emissions from less plowing is two-fold: first, if you spray fewer pesticides, you drive your farm equipment less often, saving on fuel, and second, not plowing leads to an increase in the amount of carbon held in the soil rather than released into the environment. These factors contributed to a combined reduction equal to a 14.76 billion kg of CO<sub>2</sub> in 2006. **This is the equivalent of removing 6.56 million cars from the roads for one year.**

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**With biotechnology, farmers have eliminated 379 million pounds of pesticide applications globally.**

## DECREASING PESTICIDE USE

Since biotech crops were introduced, farmers have eliminated 379 million pounds of pesticide applications globally. One reason is biotechnology allows farmers to more accurately target the specific pests attacking their farms, reducing the need for pesticides.

## IMPROVING WATER QUALITY

Decreasing herbicide and pesticide usage on biotech crops means less runoff of these chemicals from fields to streams and improved water quality. Biotechnology is also being used in the development of low-phytate soybeans and corn. The resulting animal feed will allow livestock producers to reduce phosphorus pollution and improve water quality.

## BIODIVERSITY

Sustainable agriculture encourages healthier soil, air and water, and also the growth of habitats with different types of wildlife. For example, songbirds return to fields in increasing numbers as biotech crop land increases.

Biotechnology provides an essential toolbox of solutions to ensure environmental sustainability. Biotech crops can help global farmers grow enough food at a good income so they stay in business, while saving water, energy, raw materials and reducing emissions and waste. As the world's industries look at ways to become greener, agriculture is leading the way with biotechnology. And it all starts at home: farmers live off the land and seek to build a greener future for generations to come.

**Biotechnology uses fewer resources such as water and land, promoting growth of wildlife habitat.**

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*For more information on Biotechnology and Being Green, please visit [SoyConnection.com](http://SoyConnection.com).*