

THE GLOBAL IMPACT of Biotech Crops



BIOTECHNOLOGY-IMPROVED CROPS ARE RAISING FARM INCOMES, INCREASING PRODUCTIVITY AND DELIVERING IMPORTANT ENVIRONMENTAL BENEFITS.

ECONOMIC BENEFITS

In 2011 alone

Worldwide income increased by

\$19.8B

Equalling an average gain of

\$133 per hectare

Between 1996-2011

49% Increase in income from yield gains

\$98.2B Increase in farm incomes globally

\$43.4B Increase in the US

INCREASED YIELD

Between 1996 and 2011, crop biotechnology was responsible for an additional:



15.9M metric tons of cotton lint



195M metric tons of corn



110.2M metric tons of soybeans

TO MAINTAIN CURRENT YIELDS WITHOUT THESE BIOTECH CROPS WOULD REQUIRE **15.3 MILLION MORE HECTARES OF LAND** - AN AREA LARGER THAN THE TOTAL FARM LAND PLANTED TO PRINCIPAL CROPS IN THE STATES OF **INDIANA AND ILLINOIS** IN 2011.¹



↑
INCREASED FARM INCOMES

ENVIRONMENTAL BENEFITS

REDUCED PESTICIDE USE

Between **1996** and **2011**, biotechnology reduced the amount of pesticide used by **474 million kilograms**

Leading to an **18.1% reduction²** in the environmental impact of insecticides and herbicides



Biotech crops require less fuel and less tillage. In 2011, this reduced CO₂ emissions by **23 billion kilograms**



Equal to taking **10.2 million** cars off the road for one year

For more information, please visit www.pgeconomics.co.uk

¹Principal Crops Area Planted – States and United States: 2009-2011 <http://usda01.library.cornell.edu/usda/nass/Acre//2010s/2011/Acre-06-30-2011.pdf>

²As measured by the Environmental Impact Quotient (EIQ) indicator (developed at Cornell University)