CONTINUED HECTARE GROWTH

MORE DEVELOPING COUNTRIES ADOPTING BIOTECH CROPS

1996

19 years of consecutive growth

2014

2014 BIOTECH CROP REPORT

Highlights of global biotech crop adoption by The International Service for the Acquisition of Agri-biotech Applications (ISAAA). For more information, visit ISAAA.org.

18 MILLION FARMERS in 28 countries plant biotech crops

FASTEST ADOPTED CROP TECHNOLOGY IN RECENT TIMES

MORE STAPLE FOOD CROPS WITH DIRECT CONSUMER BENEFITS

UNITED STATES
Approved Innate™ potato
- Potato = 4th most important global food crop
- Reduces crop loss and food waste from bruising
- When cooked at high temps, produces less acrylamide (potential carcinogen)

BANGLADESH
Commercialized Bt brinjal (eggplant) in record time
- Brinjal = nutritious vegetable
- Yield increase by 30%
- Reduces farmer exposure to insecticides by 70-90%

INDONESIA
Approved drought- tolerant sugar cane for food
- Increases availability of valuable food source
- Decreases dependency on imported sugar

BRAZIL
Approved virus resistant bean for 2016 plantings
- Provides essential food crop for Brazilians as rice & beans are key part of diets
- Emphasizes efficacy of a science-based approval system

PUBLIC-PRIVATE PARTNERSHIPS

Public-private partnerships show promise of delivering approved biotech crops to farmers. These include:
- Brazil and BASF - herbicide-tolerant soybean
- Bangladesh and seed company Mahyco - Bt brinjal (eggplant)
- Sub Saharan Africa and Monsanto - drought-tolerant (DT) maize through the Water Efficient Maize for Africa (WEMA) project

The WEMA project aims to deliver the first biotech DT maize to select African countries in 2017, where the food staple is depended on by 300M+ poverty-stricken Africans. Projections show DT/Bt maize hybrids yielding up to 20 to 35% more than current hybrids, resulting in 2 to 5 more million metric tons of maize to feed 14 to 21 million people

TOP 5 COUNTRIES PLANTING BIOTECH CROPS BY HECTARAGE

USA 73.1M
Brazil 42.2M
Argentina 24.3M
India 11.6M
Canada 11.6M

About ISAAA and Clive James, Author of the Report

The International Service for the Acquisition of Agri-biotech Applications (ISAAA) is a not-for-profit organization with an international network of centers designed to contribute to the alleviation of hunger and poverty by sharing knowledge and crop biotechnology applications. Clive James, Emeritus Chairman and Founder of ISAAA, has lived and/or worked for the past 30 years in the developing countries of Asia, Latin America and Africa, devoting his efforts to agricultural research and development issues with a focus on crop biotechnology and global food security.

IMPACTING MORE COUNTRIES AND PEOPLE WHO NEED IT MOST

8 industrial countries
- Bangladesh planted biotech crops for the first time in 2014
- Indonesia & Vietnam approved biotech crops for 2015 planting

90% small and resource poor farmers

MORE DEVELOPING COUNTRIES

BIOTECH BENEFITS

Improve Food Security
- Help alleviate poverty for more than 16.5M small farmers and their families

Realize Economic Gain
- Increased crop production valued at $US133B from 1996-2013

Mitigate Climate Change
- Lowered CO2 emissions in 2013 alone equal to removing 12.4M cars from the road
- Reduced Environmental Impact
- Reduced pesticide use, saving 500M kg of active ingredient from 1996 to 2012

Meet Farmers’ Need
- Drought tolerant traits progress with 5.5 fold gain of DT maize plantings in the U.S. from 2013 (50,000 hectares) to 2014 (275,000 hectares)