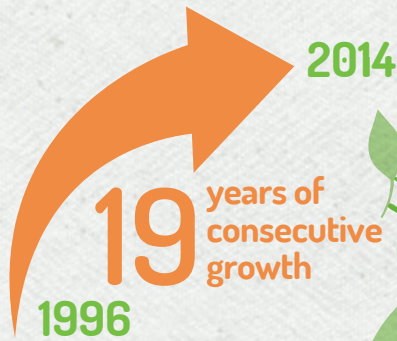


2014 BIOTECH CROP REPORT

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

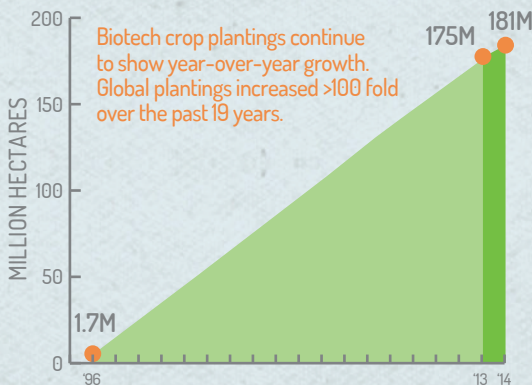


18 MILLION FARMERS
in **28** countries plant biotech crops



FASTEST ADOPTED CROP TECHNOLOGY IN RECENT TIMES

CONTINUED HECTARE GROWTH



MORE DEVELOPING COUNTRIES ADOPTING BIOTECH CROPS



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

Reduce 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)

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

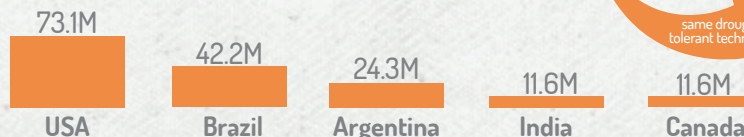


Public-private partnerships show promise of delivering approved biotech crops to farmers. These include:

- 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



same drought-tolerant technology



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.