

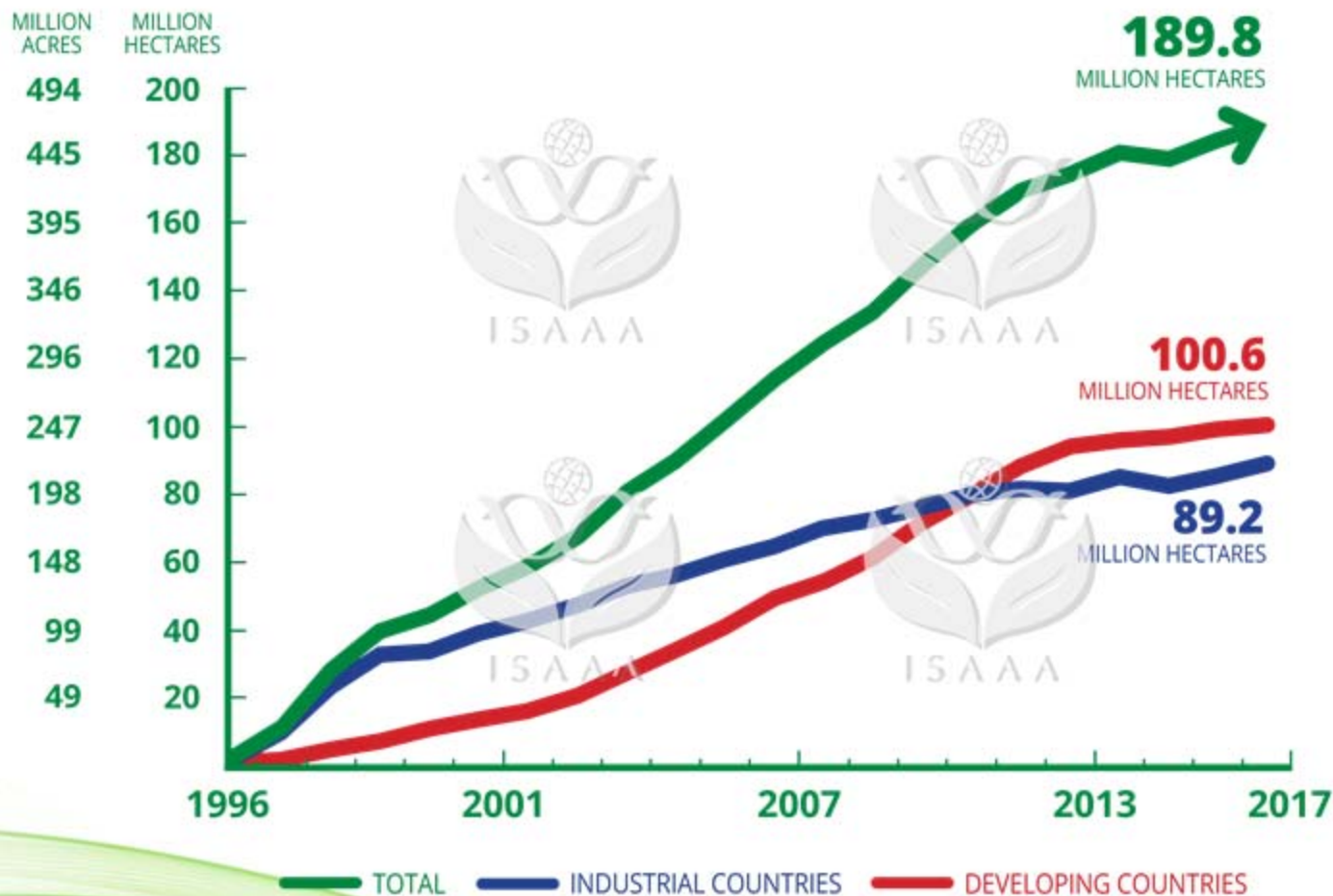


Global Status of Commercialized Biotech/GM Crops in 2017:

Biotech Crop Adoption Surges as Economic Benefits Accumulate in 22 Years

International Service for the Acquisition
of Agri-biotech Applications (ISAAA)

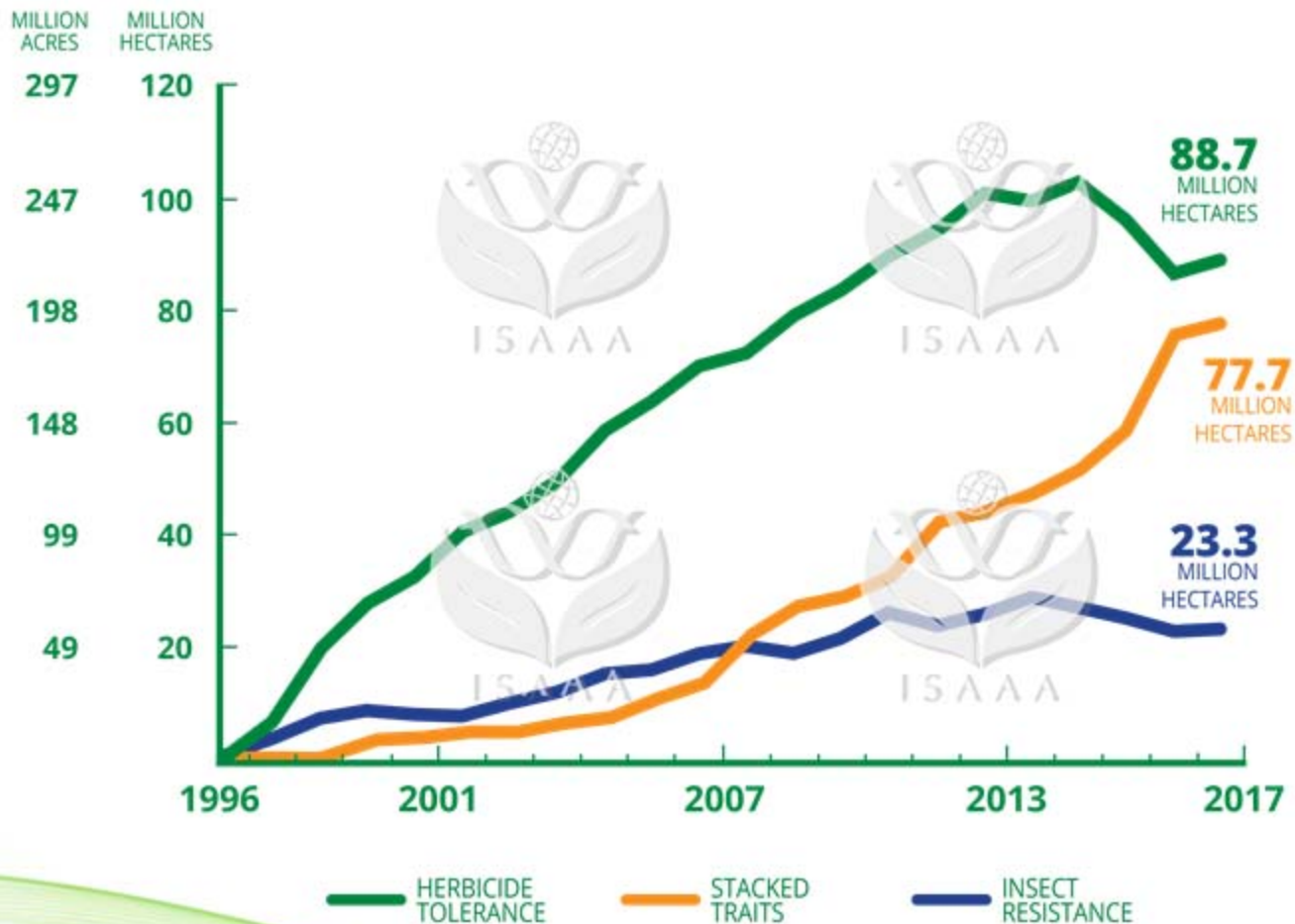
Global Area of Biotech Crops, 1996 to 2017: Industrial and Developing Countries (Million Hectares, Million Acres)



ISAAA, 2017

Global Area of Biotech Crops, 1996 to 2017: By Trait

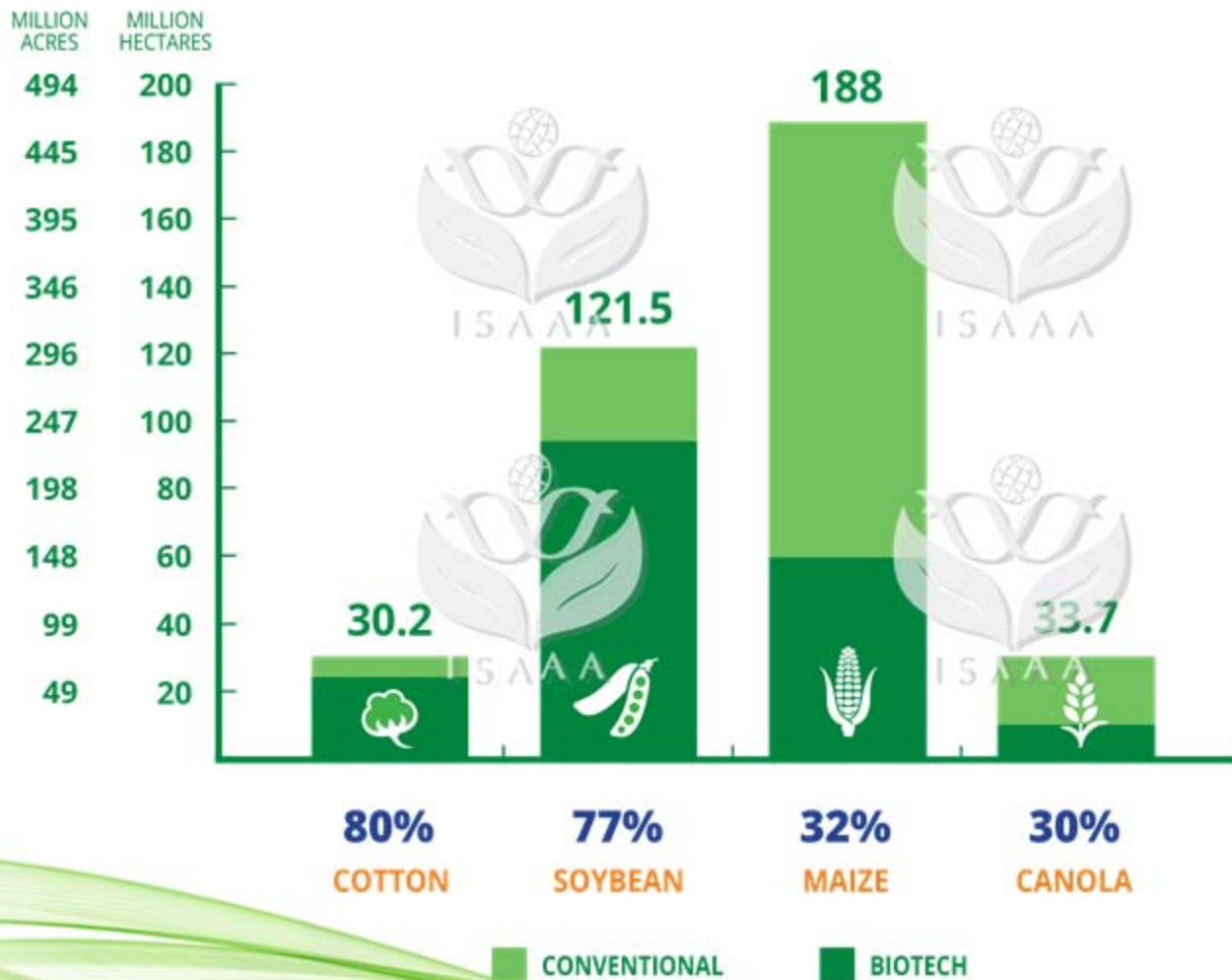
(Million Hectares, Million Acres)



ISAAA, 2017

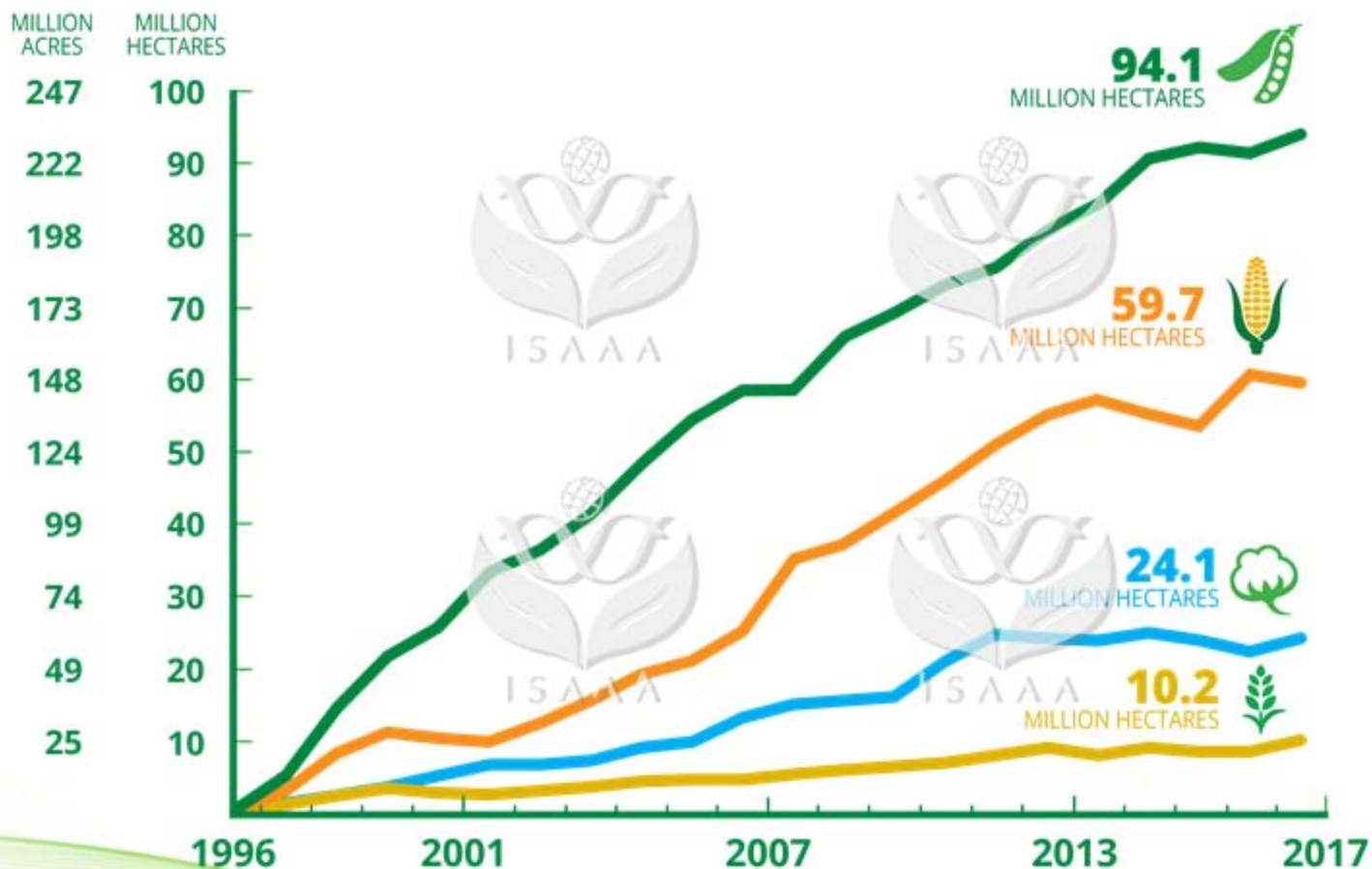


Global Adoption Rates (%) for Principal Biotech Crops (Million Hectares, Million Acres), 2017



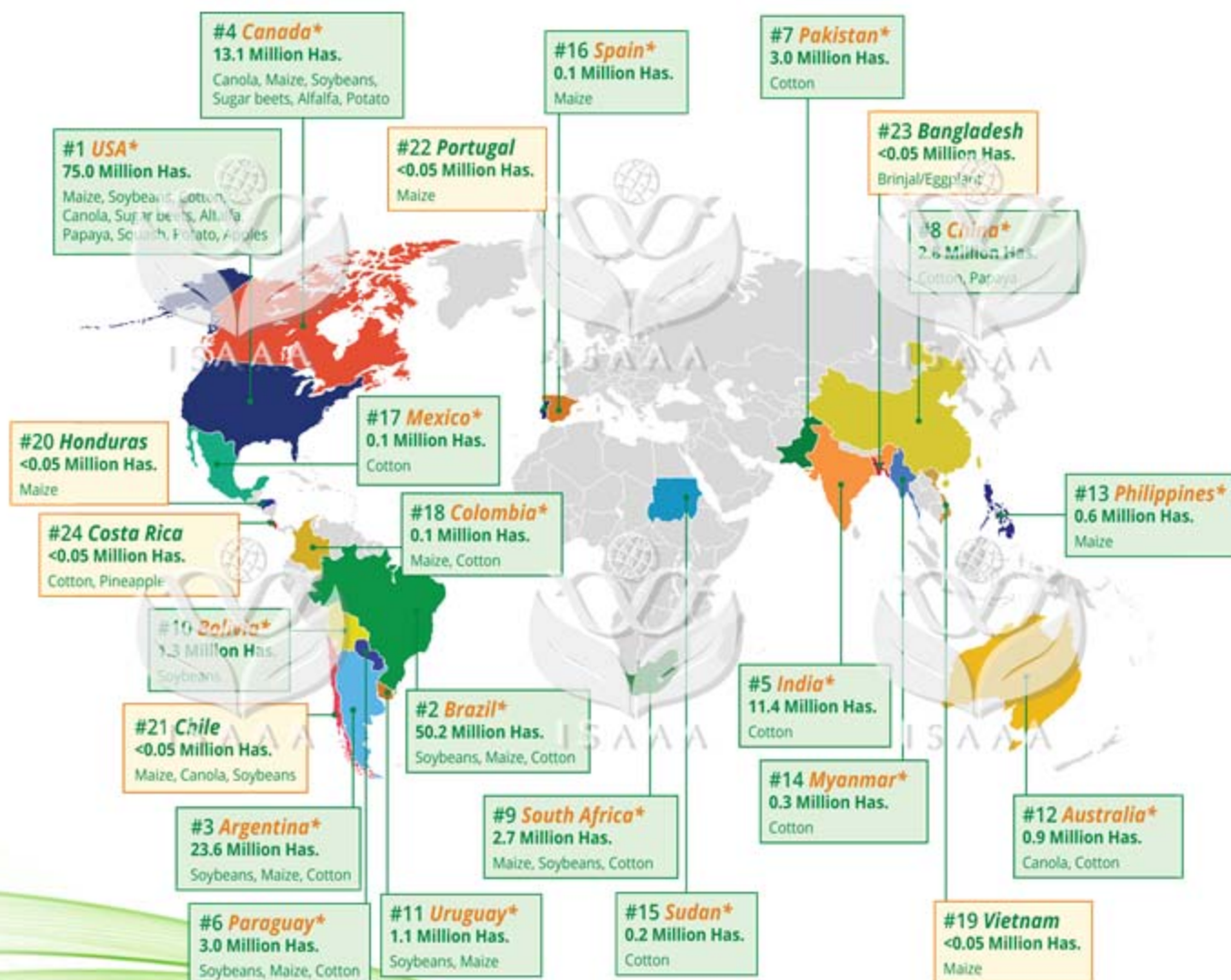
Global Area of Biotech Crops, 1996 to 2017: By Crop

(Million Hectares, Million Acres)



ISAAA, 2017

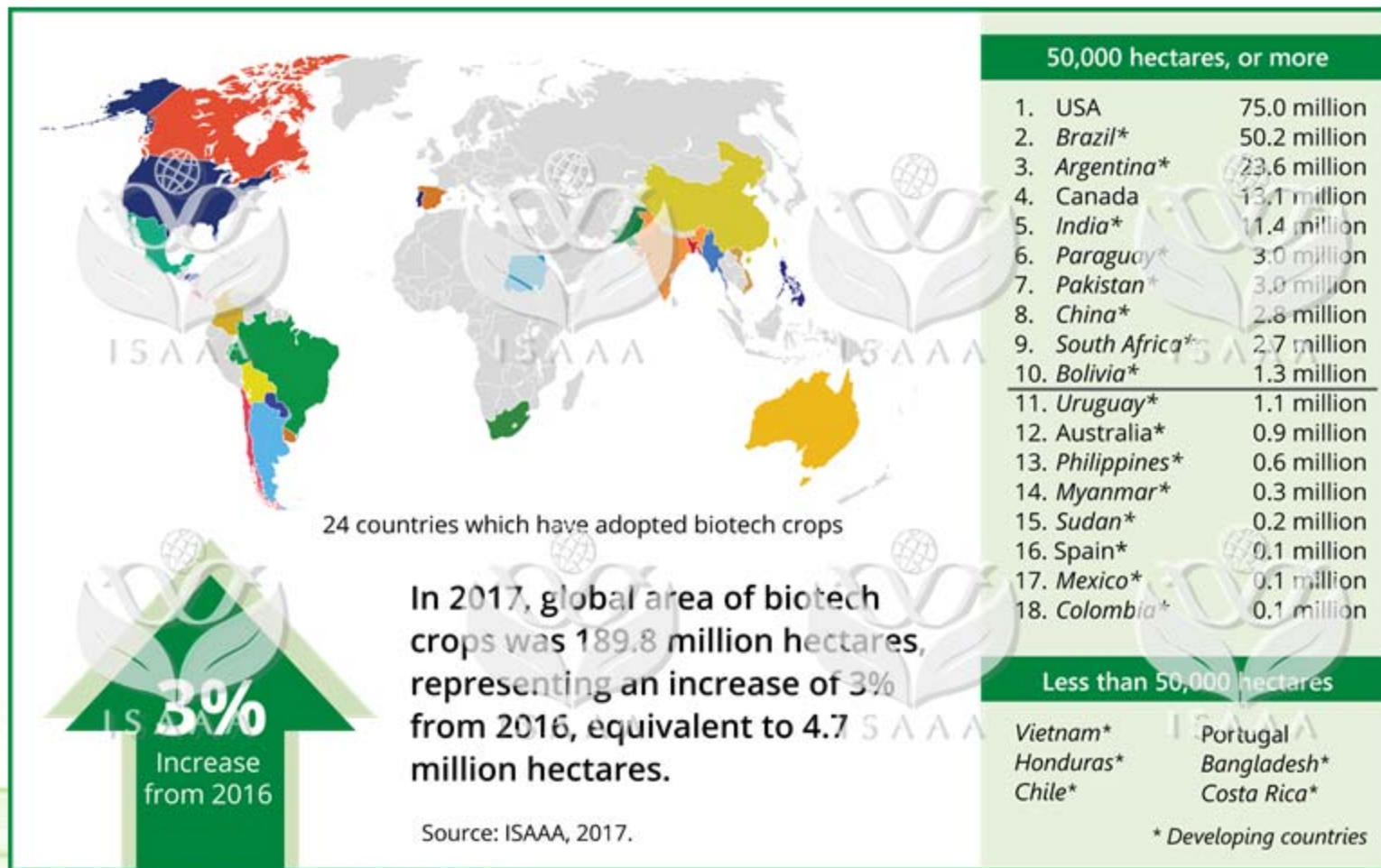
Biotech Crop Countries and Mega-Countries*, 2017



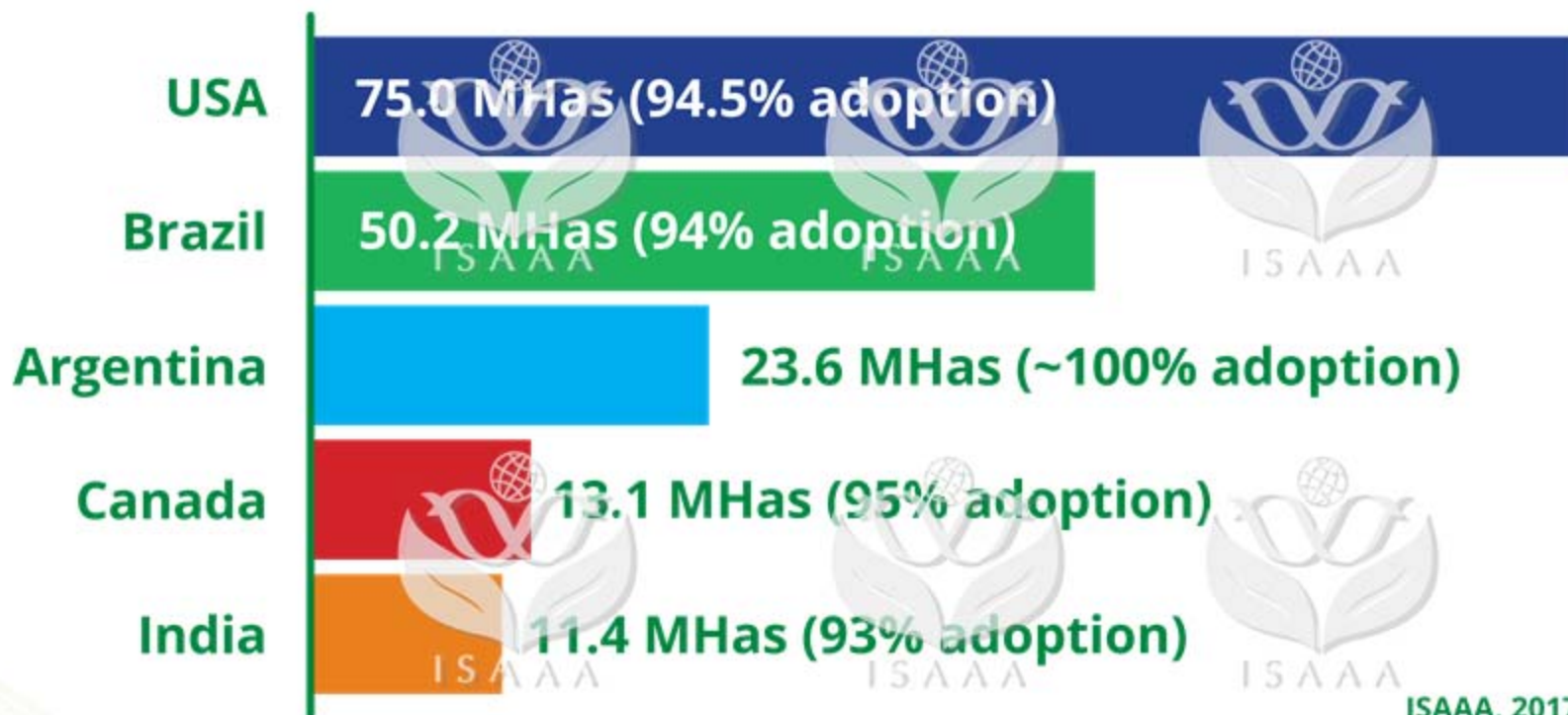
*18 biotech mega-countries growing 50,000 hectares, or more, of biotech crops.

ISAAA, 2017

Global Area of Biotech Crops, 2017: By Country (Million Hectares)



Top 5 Countries that Planted Biotech Crops in 2017 (Area and Adoption Rate)



STATUS OF APPROVED EVENTS FOR BIOTECH CROPS USED IN FOOD, FEED, PROCESSING, AND CULTIVATION



67 COUNTRIES ISSUED



4,133 REGULATORY APPROVALS FOR 26 GM CROPS SINCE 1992

1,995 FOOD USE

1,338 FEED USE

800 CULTIVATION

JAPAN HAS MOST NUMBER OF APPROVALS
646 APPROVALS

MAIZE HAS LARGEST NUMBER OF APPROVED EVENTS
232 APPROVED EVENTS IN **30** COUNTRIES

HERBICIDE TOLERANT MAIZE EVENT
NK603 HAS MOST APPROVALS
55 APPROVALS IN **26** COUNTRIES

Source: ISAAA, 2017

CONTRIBUTION OF BIOTECH CROPS TO FOOD SECURITY, SUSTAINABILITY, AND CLIMATE CHANGE



INCREASING CROP PRODUCTIVITY US\$186.1 BILLION

FARM INCOME GAINS IN 1996-2016
GENERATED GLOBALLY BY
BIOTECH CROPS



CONSERVING BIODIVERSITY

IN 1996-2016, PRODUCTIVITY GAINED
THROUGH BIOTECHNOLOGY SAVED
183 MILLION HECTARES
OF LAND FROM PLOWING AND CULTIVATION



PROVIDING A BETTER ENVIRONMENT LESS PESTICIDE APPLICATIONS

DECREASED ENVIRONMENTAL IMPACT
FROM HERBICIDE & INSECTICIDE USE
BY **18.4% IN 1996-2016**



REDUCING CO2 EMISSIONS

SAVED 27.1 BILLION KGS CO2
EQUIVALENT TO REMOVING
16.7 MILLION CARS
OFF THE ROAD FOR **1 YEAR**



HELPING ALLEVIATE POVERTY & HUNGER

BIOTECH CROPS UPLIFTED THE LIVES OF
16-17 MILLION SMALL FARMERS
AND THEIR FAMILIES TOTALING
>65 MILLION PEOPLE

Source: Brookes and Barfoot, 2018