



# GM Crops and their benefits for the Environment and European Agriculture

# **THE CORE OF THE BUSINESS**

An aerial photograph of a vast agricultural landscape. In the foreground, a large field of golden-brown crops, likely corn, is being harvested. A combine harvester is visible in the middle ground, moving across the field. The background shows a mix of green fields, trees, and distant hills under a cloudy sky.

**Tillage Farming**

**Involving**

**Owned Land**

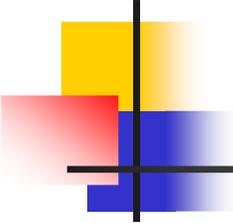
**Rented Land**

**Leased Land**

**Share Farming**

**Contracting –Stubble To**

**Stubble,etc**

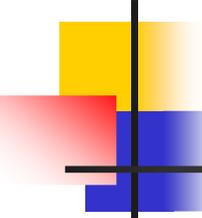


# Key Tools of the Business

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- Modern reliable High output Machinery, allowing all fieldwork to be completed on time.
- Using GPS Auto steer for Maximum Efficiency and Output on all Tractors & Combine.
- Fully computerised recording of all crop inputs/outputs on Field laptop & saved daily to a main server.
- Regular soil testing.
- Good Advice from Agronomist & Teagasc





# Key Tools of the Business

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- Well trained Farm working Students from Teagasc colleague's who are keen to work, Very Knowledgeable & skilled
- Discussion group & Travelling group used to see new practices & trials etc in Ireland & Abroad.
- Broad network of farming contacts across the major grain producing countries across the world.

# The World Needs More Food Now!

- Growing 2 people per second
- 200,000 per day
- 80,000,000 per year
- 7 Billion worldwide
- Doubling to 14 billion in 50 years



# Where Will The Food Come From?

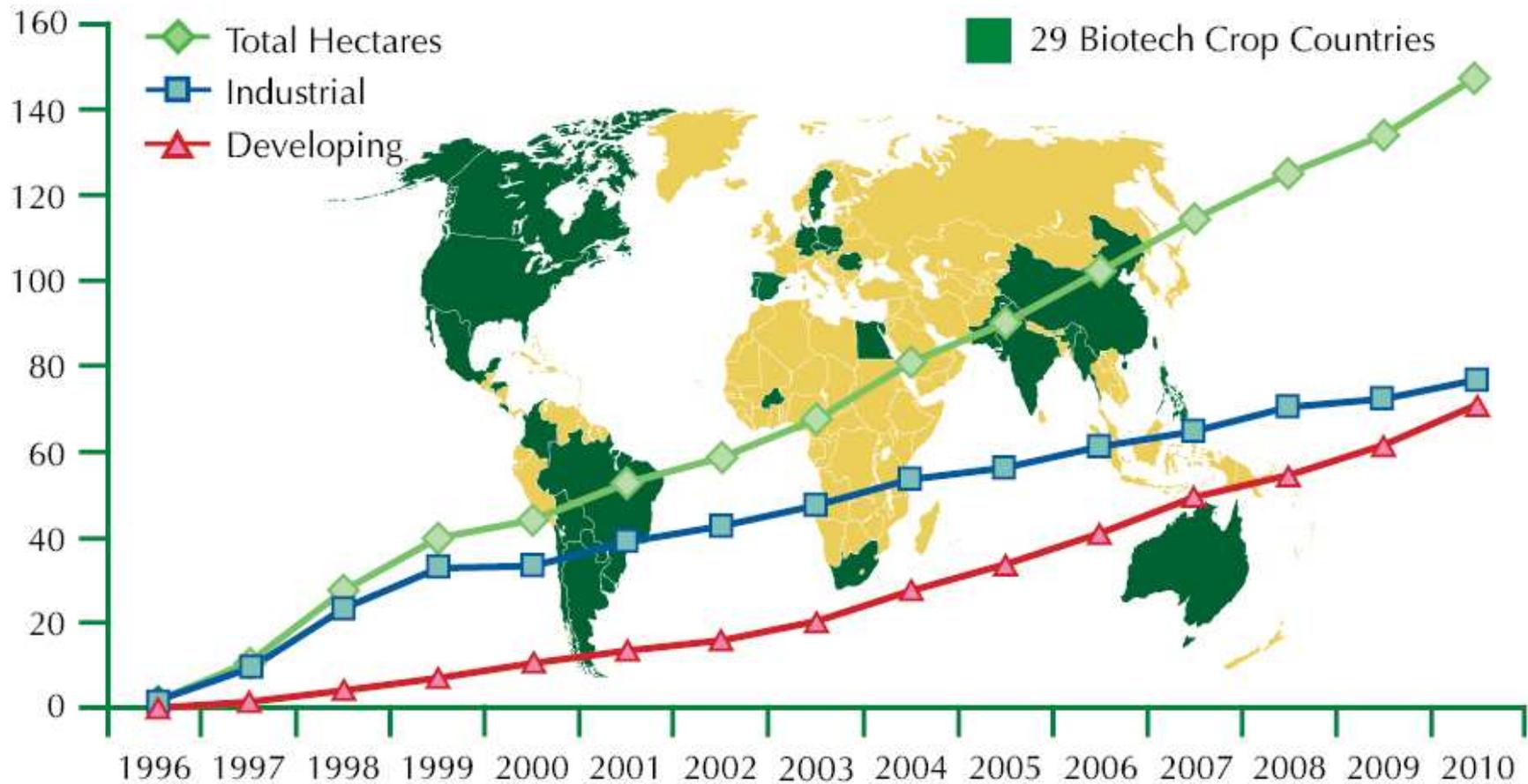
- Only 17% of world surface is Cultivated
- Only 4% of the earth surface is Arable land
- This surface is decreasing!!
- Food for everyone that's the challenge For Now and the Future



# BIOTECHNOLOGY GOOD FOR THE ENVIRONMENT.

- 393 Metric Tonnes decrease in pesticide application
- In 2009 reduction of CO2 emissions by 18 Billion KG equivalent to taking 8 million cars of the road
- Helping to conserve & increase biodiversity .
- Large increase in wildlife where GM is grown

## GLOBAL AREA OF BIOTECH CROPS Million Hectares (1996-2010)



*A record 15.4 million farmers, in 29 countries, planted 148 million hectares (365 million acres) in 2010, a sustained increase of 10% or 14 million hectares (35 million acres) over 2009.*

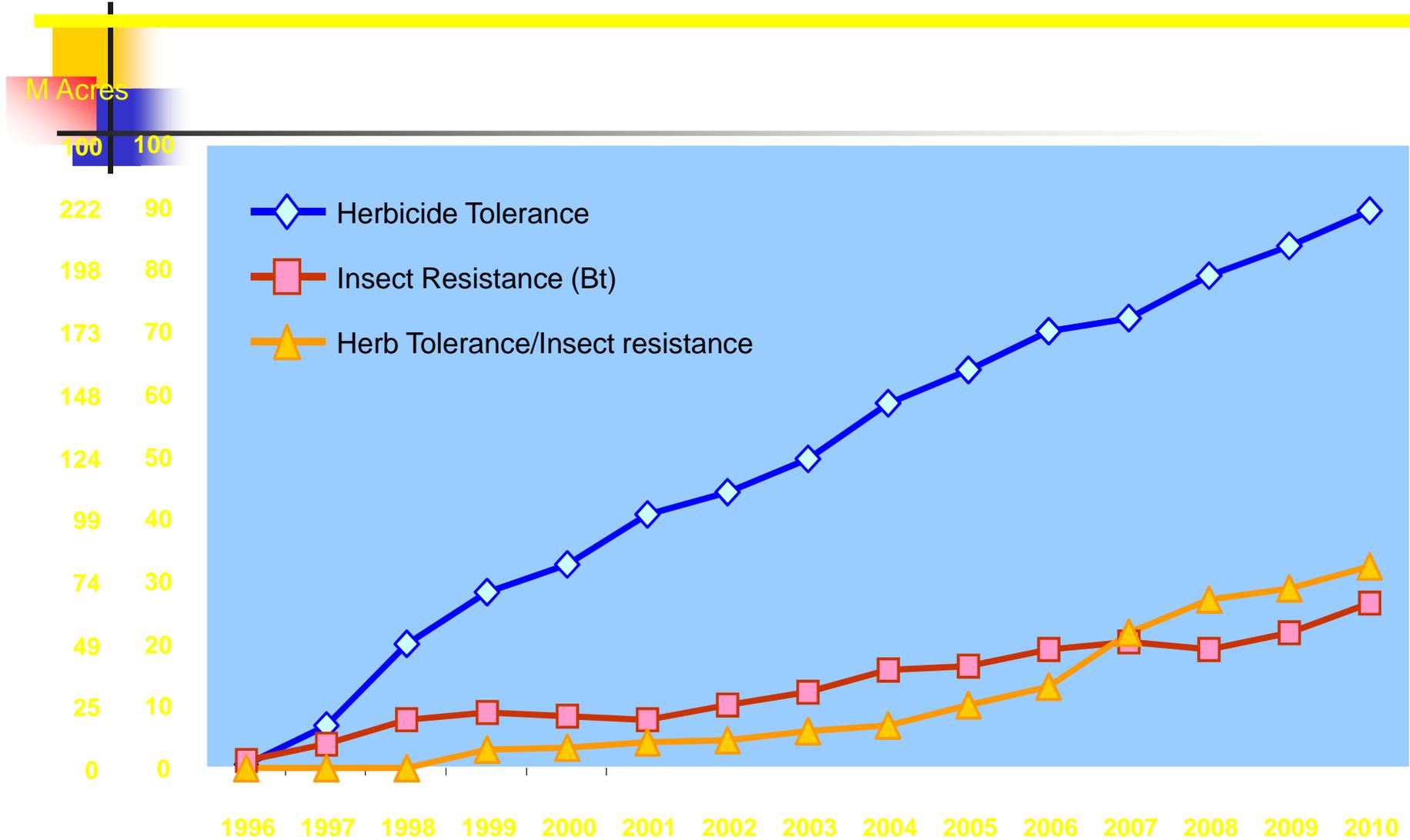
Source: Clive James, 2010.

A wide-angle photograph of a lush green agricultural field, likely a cornfield, stretching to the horizon under a bright, slightly overcast sky. The field is filled with rows of crops, and a few white structures are visible in the distance.

# How much of world land is now growing GM?

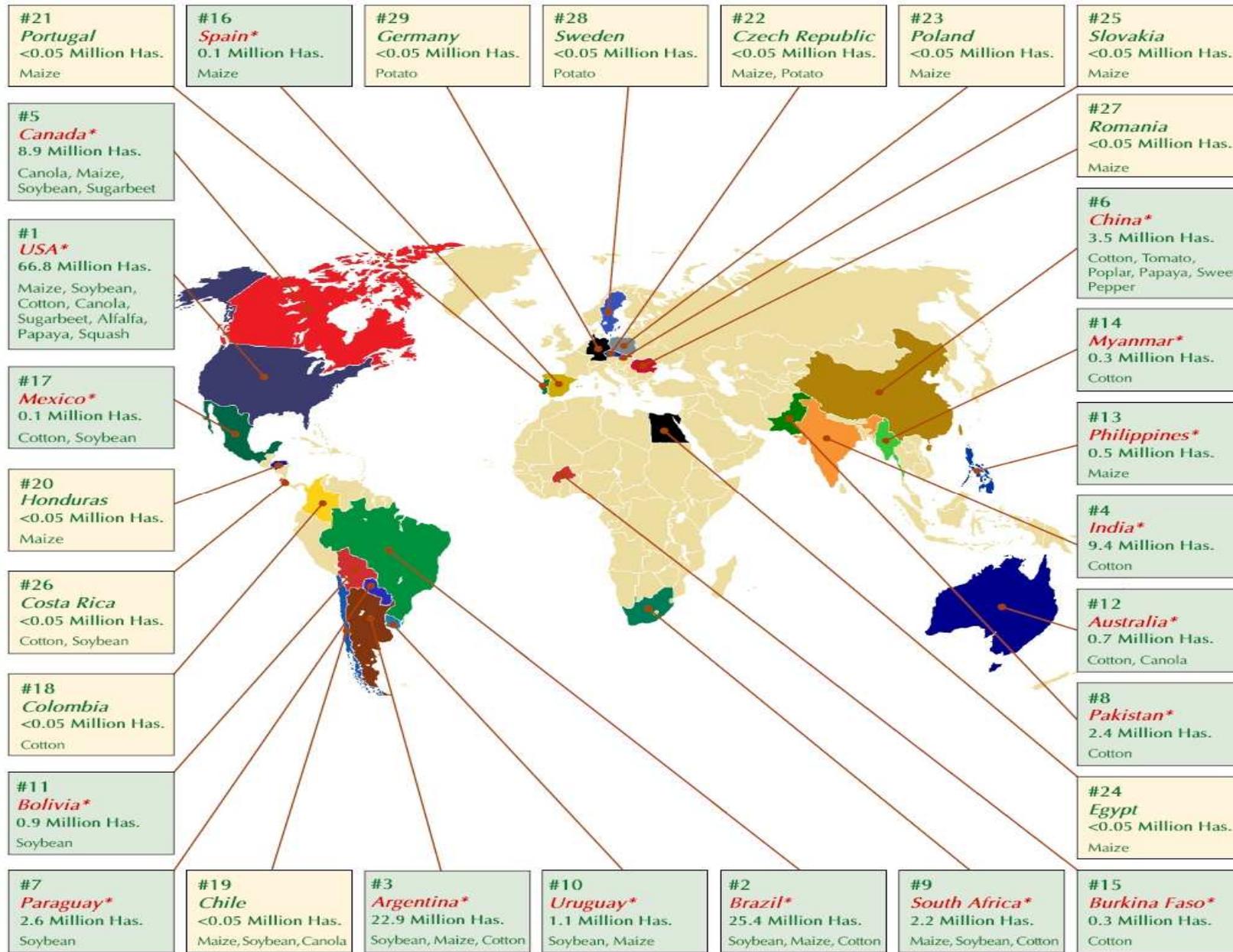
- Currently 10% of the 1.5 Billion Hectares of global cropland
- 50% of global cropland is in the 29 countries planting biotech crops in 2010

# Global Area of Biotech Crops, 1996 to 2010: By Trait (Million Hectares, Million Acres)



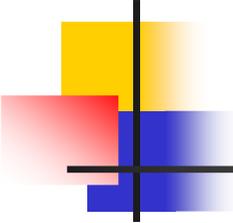
Source: Clive James, 2010

## Biotech Crop Countries and Mega-Countries\*, 2010



■ \* 17 biotech mega-countries growing 50,000 hectares, or more, of biotech crops.

Source: Clive James, 2010.



# What GM Crops mean.

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Greatly reduced inputs and growing costs, with much higher yields and profits.

Much more consistent yields because of multiple trait stacking.

Greatly improved environment, thanks to a large reduction in synthetic inputs, Helping to conserve precious ecosystems.

Eco fundamentalism has to be challenged by sound science.

# The Four Main Crops .

- Soybean
- Corn (Maize)
- Canola
- Cotton



# Countries Visited

- USA (North) including Illinois, Iowa, Minnesota, North Dakota.
- Canada-Saskatchewan
- Argentina
- Brazil

MONSANTO



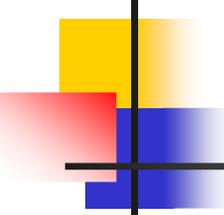
FIELDS OF TOMORROW

North & South America!!!

By 2030, Monsanto pledges to

**DOUBLE YIELDS**

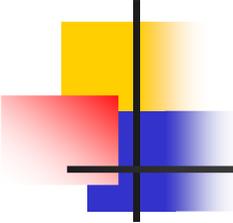
in corn, soybeans, cotton and  
specialty crops



# EU & BIOTECHNOLOGY TODAY!

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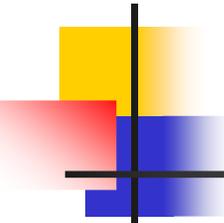
- Currently there are only two GM Crops varieties approved in the EU.
- POTATO'S "Amflora" for starch production. Grown in Czech Republic, Germany & Sweden
- BT MAIZE for livestock feed in Portugal, Spain, Poland, Slovakia, Romania & Czech Republic.



# GM Golden Rice

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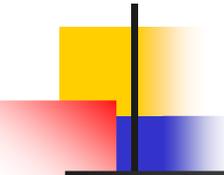
- *72% of Third world countries daily deight is Rice ,it is low in Vitamin A*
- *Vitamin A deficiency VAD Cause's many serious & terminal Diseases yearly.*
- *Seed companys devoloped "Golden Rice" offered it Roylty free to all afected*
- *It was devoloped as a humanatrion tool*
- *third world countries where up to 500,000 CHILDERN become blind each year*
- *as a direct consequence of VAD 50% of those CHILDERN will die each year*
- *This technology remains on the shelf today as it has met with huge opposition*
- *From Environmental and anti-globalisation activists*



# GM Wheat Why???

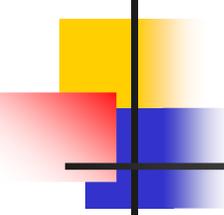
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# GM OIL SEED RAPE WHY???





# KEY TAKE HOME MESSAGE'S

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- If we want to grow GM crops we need to push our Minister of Agriculture
- Field trials by Teagasc of GM Wheat & OSR
- Regulation of Trait royalties Paramount
- Farmer training & understanding vital
- GM crops the way forward for EU grain producers better for the Environment
- More productive & More Profitable



**SOMETIMES ITS ALL TOO  
MUCH!!!!!!!!!!**



# Not everything is bigger in America!!!



**THANK YOU FOR YOUR  
ATTENTION**

