



# GMOS IN THE INTERNATIONAL MARKET

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The background is a solid green color with a subtle gradient. In the four corners, there are decorative white line-art patterns resembling circuit traces or a stylized tree structure. These patterns consist of vertical lines that branch out at various angles, ending in small circles.

WHY IS FREE TRADE GOOD?

# BENEFITS OF FREE TRADE

- Countries engaged in free international trade see more than simply “more things for lower prices”
  - Increased standard of living
  - Consumption Gains
  - Production gains

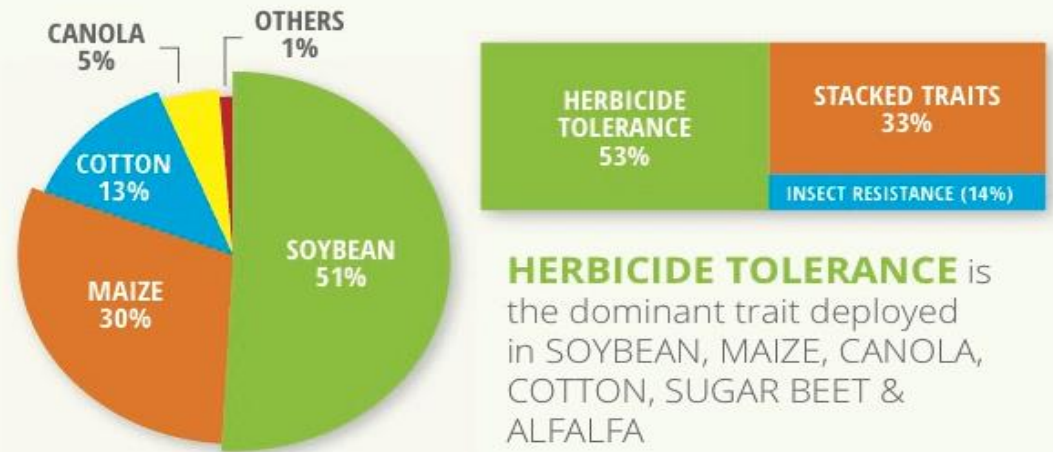


Globally, international trade tends to enhance the diffusion of technology

# "REFRESHER" ON GMOS

- Transgenic organisms contain DNA from foreign organisms that is introduced for the sake of the adoption of a new trait like tolerance or resistance
  - Tolerance towards herbicides, pesticides
- Today, 94% of soybeans, 80% of corn, and 89% of cotton crops in the United States are GM

## MAJOR BIOTECH CROPS



**HERBICIDE TOLERANCE** is the dominant trait deployed in SOYBEAN, MAIZE, CANOLA, COTTON, SUGAR BEET & ALFALFA

"Stacked" varieties are also popular – containing traits keen to herbicide and pesticide resistance.

GMOs are a very controversial topic among consumer and environmental groups due to issues of safety and ethics

# REASONS FOR GMO TRADE BARRIERS

- Trade protectionism
- Pressure from activists caused by public uneasiness
- Protecting country image
- Not science related
  - independent science organizations in every major country have come out with public statements that GM products are safe

# CASE STUDY: EU'S BEEF WITH GMOS

Since the introduction of transgenic organisms into the consumer space in the late 1980s, the biotech industry has struggled with adoption by European Union Countries



Aside from Monsanto's MON 810 corn variety, European nations have employed vast countermeasures to keep GMOs out of the continent.

## EU'S BEEF WITH GMOS

- Through the application of technical regulations and health and safety standards, the EU effectively delayed the authorization of any GM crops for use for a large part of the early 2000s
- This changed when the World Trade Organization ruled the moratorium on GM approval conflicted with international trade law.
- Since then, 49 species of GM crops have been authorized for use within the European Union.
- Despite this, several countries have exercised “safeguard” clauses, allowing them to further prevent the use and consumption of genetically modified foods.

# THE QUESTION OF GMO TRADE REGULATION

## BENEFITS OF BARRIERS

- Age of transgenic bio-tech leaves a lot of questions about the long term health and ecological effects of genetically modified organisms
- Nations that enforce barriers effectively create a mechanism to shield domestic business from international market.

## DRAWBACKS OF BARRIERS

- GM crops have shown their worth in American markets as popular consumer products that dominate production.
- If authorized in areas like Europe, seed and grain suppliers could have the opportunity to enter a new market.



# CURRENT EVENTS

Chinese spies want our Seeds?

<https://www.wsj.com/articles/the-scientist-and-the-spy-review-agent-running-in-the-field-11581278582?mod=searchresults&page=1&pos=2>

Chinese agriculture companies employ “spies” in America

Walk fields and gather seeds to ship back to China so they can copy and reproduce them

Brexit will not change the United Kingdom’s stance on adhering to EU regulation.

<https://www.wsj.com/articles/no-brexit-wont-free-the-u-k-from-eu-regulations-11581087277?mod=searchresults&page=1&pos=3>

Global companies often voluntarily standardize their operations to ensure access to all markets

EU regulatory standard is most stringent

The image features a dark green background with white, stylized circuit board traces in the corners. These traces form various geometric shapes and paths, ending in small circles, resembling a network or data flow diagram. The traces are located in the top-left, top-right, bottom-left, and bottom-right corners.

QUESTIONS?

# SOURCES

- <https://www.loc.gov/law/help/restrictions-on-gmos/eu.php>
- <https://www.ers.usda.gov/data-products/adoption-of-genetically-engineered-crops-in-the-us.aspx>
- [https://ec.europa.eu/food/plant/gmo/legislation\\_en](https://ec.europa.eu/food/plant/gmo/legislation_en)
- <https://www.reuters.com/article/grain-germany-gmo/germany-to-ban-cultivation-of-gmo-maize-minister-idUSLE16356920090414>