



# **Sharing Monsanto's Story: *Food, Inc.***

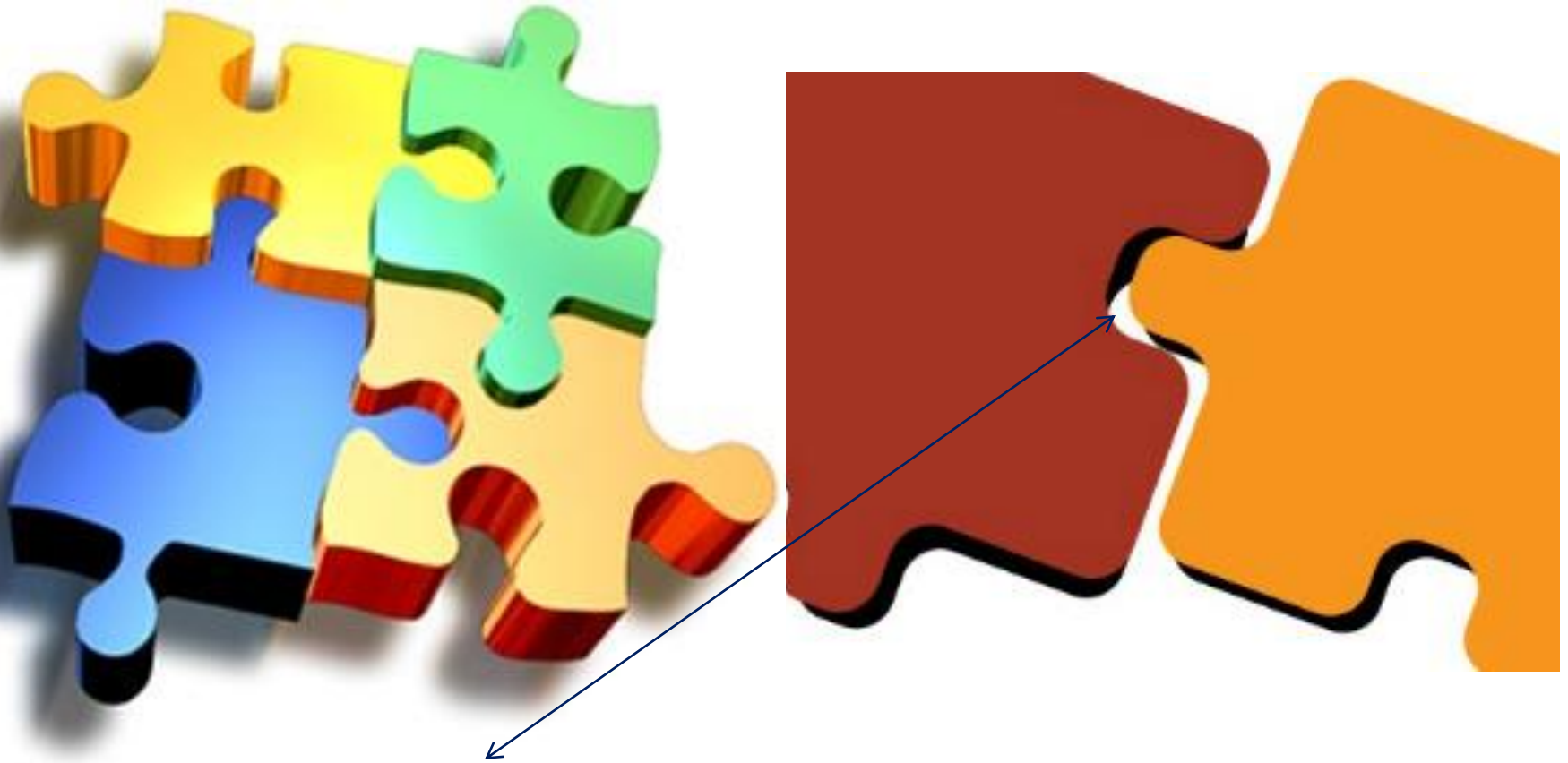


# What is a documentary to you?

claim  
Hypothesis  
Indisputable  
Judgment  
Doubt  
Opinion  
Learning  
entertainment  
historical  
assertion  
truth  
Fact  
Theory  
belief



# Food, Inc. attempts to piece together a big picture...



**But when the pieces don't connect, gaps in the information create confusion and mislead the audience**

# Let's fill in the gaps - Topics discussed in Food, Inc. about Monsanto

- 1. Seed saving, Patents, and legal agreements**
- 2. Monopolizing the soybean industry**
- 3. "Revolving door" with government regulators**
- 4. Safety of GM crops**
- 5. Labeling of GM Crops**

# Food, Inc. Suggests...

Monsanto sues farmers for allegedly saving patented seed **OR** small amounts of our traits found in farmers' fields

## What are the facts?

- Farmers are our customers and priority
- Farmers agree to not save and plant patented seed
- Farmers can choose to save seed if they buy non-patented seed
- We have pledged publicly to never sue (nor have ever sued) a farmer for trace amounts of seed in their field
- In saved seed matters, we make every effort to avoid litigation

# Interestingly enough..

- ❖ The patenting of seeds was first permitted under the Plant Patent Act of 1930-which significantly pre-dates biotech seeds
- ❖ Patents – whether for new plants or biotech traits – allow the creator of the technology the opportunity to commercialize their innovation and to obtain a return on their investment of time and money for a limited time
- ❖ GM seeds are not the only type of seeds that can be patented. In fact, many more non-GM plant varieties have been patented than genetically modified ones

# Topics discussed in Food, Inc. about Monsanto

1. Seed saving, Patents, and legal agreements
2. **Monopolizing the soybean industry**
3. “Revolving door” with government regulators
4. Safety of GM crops
5. Labeling of GM Crops

# Food, Inc. Suggests...

Monsanto is the only company that sells biotech seeds and therefore has corporate control over these farmers

## What are the facts?

- There are hundreds of seed companies in the US that sell to farmers including biotech
- Farmers have a lot of seed choices (organic, non-GMO, GMO); they make a new choice **EACH** year
- Our Farmers sign the Monsanto Technology Agreement as part of Stewardship requirements



# The Farmer's Life

"When tillage begins, other arts follow. The farmers, therefore, are the founders of

Home

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Corn 101

FAQ

Contact Me

## What's in a Monsanto Contract?

What's in  
a Monsanto  
Contract?



I'm a family farmer, and I have signed a Monsanto contract. I'm the 4th generation to work this land. Somewhere along the line the idea corporations control farms or farmers are slaves to "Big Ag" came about. People claim that we are beholden to corporations like [Monsanto](#) and have to sign unfair contracts to be privileged enough to use their seed. They'll also claim that the contracts rope us into buying other inputs like insecticides and herbicides from the same company. We get a lot of our seed from agribusinesses like the "evil" [Monsanto](#) so I'd like to other you my thoughts on this issue.

## Farmer Perspective

The [Farm Aid website](#) poses the question "What do GMOs mean for family farmers and our food?" and goes on to say:

**Corporate Control.** Farmers who buy GE seeds must sign contracts that dictate how their crop is grown – including what chemicals to buy – and forbid them from saving seeds. This has given corporations incredible control over the production of major staple crops in America.

Let's examine this corporate control a little further and look at it from the family farm level. My farm in particular. When we buy Monsanto's GMO seeds we sign a Technology/Stewardship Agreement. Section 4 of the 2011 agreement I have on file covers everything the grower must agree to when purchasing these products. Here's a quick rundown of the requirements.

- If we buy or lease land that is already seeded with Monsanto technology that year we need to abide by the contract. Makes sense to me. If I end up leasing ground in crop for some reason, I should honor the agreements it was planted with. This would be a very odd thing too happen by the way.
- Read and follow the [Technology Use Guide](#) and [Insect Resistance Management/Grower Guide](#). So Monsanto has ideas on how best to use their product. Some of it is required by the EPA to make sure farmers like me understand how to steward the technology. No big surprise there. Not

## From a Farmer's Perspective on the Monsanto Technology Agreement

<http://bit.ly/1Ss4PdV>

Here, Brian links to a copy of the agreement **AND** breaks it down section by section

## In a Nut Shell:

"I don't see anything in there that hurts my farm."

MONSANTO



# Interestingly enough..

- Although figures in the media claim that Monsanto accounts for more than 90% of the seed sold in corn, soybeans and cotton- this is misleading:
  - ❖ In 2013, Monsanto branded soy and corn seeds account for roughly one-third of the market. Our share is significantly less in other seed crops
  - ❖ Globally, while Monsanto is one of the largest commercial seed companies, what we offer is less than five percent of the world's seeds
  - ❖ However, Monsanto does license some of our technology to others

# Topics discussed in Food, Inc. about Monsanto

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# Food Inc Suggests...

Former Monsanto employees now working in government positions have influenced government decisions on biotechnology

## What are the facts?

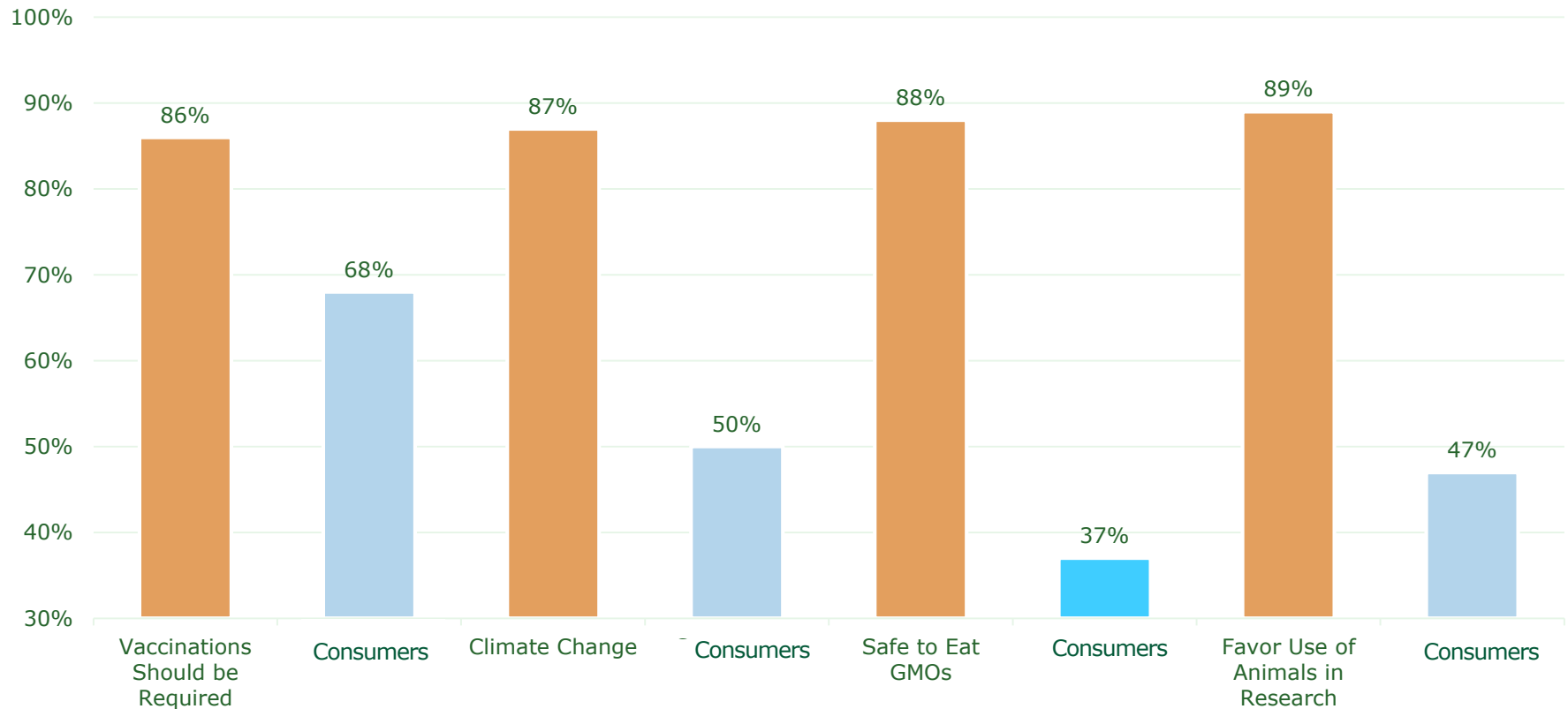
- Both the public and private sectors benefit when employers have access to the most competent and experienced people
- In every business sector, experienced and highly talented individuals are likely to change jobs to better match and expand their experience, skills and interests
  - 🍎 This is similar to superintendants being former teachers; it makes a lot of sense as they know how the classroom functions and will make effective decisions from that experience
- Federal laws carefully prevent conflict-of-interest situations when private sector employees take government jobs

# Interestingly enough..

- The film uses Supreme Court Justice Clarence Thomas as a high profile example but:
  - ❖ Thomas worked at Monsanto as an attorney 12 years before his role as a Supreme Court justice; at that time, Monsanto was not involved in biotechnology
  - ❖ The case in question involved a competitor of ours – Pioneer. It was not a Monsanto case
  - ❖ Even though Thomas wrote the majority opinion in a [biotechnology case](#) in 2001, five independent justices voted with him (it was a 6-2 decision)

# Interestingly enough..Part 2

**YES...There is Scientific Consensus on these Issues!**



Although there are **large gaps** on each of these issues, the **greatest divide among scientists and consumers is whether GMOs are safe to eat.**

**88% of AAAS scientists say it is generally safe to eat genetically modified (GM) foods compared with 37% of the general public who say the same, a gap of 51 percentage points.** [Pew Research Center](#)

# Topics discussed in Food, Inc. about Monsanto

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# Food, Inc. Suggests...

Profit is valued over the safety of GM products

## What are the facts?

- GM crops are the most widely researched and tested food products on the market
- Every GM crop is extensively tested for food safety before they are allowed to be commercialized, these requirements are set forth by **all** Global Regulatory systems
- GM crops are tested in ways conventional and organic crops are not
- On average, it takes 13 yrs and costs \$130M to develop and test a GM crop before it is commercialized



# Interestingly enough..

## TIME TO MARKET PRODUCT COMPARISON

Compared to most products, new GM seed varieties take much longer to bring to market. It requires at least 13 years of research and development, as well as regulatory approvals for new GM seeds to be introduced.

### GM Seed Variety<sup>1</sup>



### Pharmaceutical Medicine<sup>2</sup>



### Boeing 787 Dreamliner Aircraft<sup>3</sup>

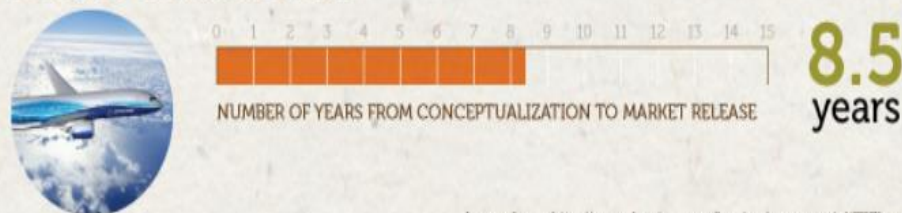
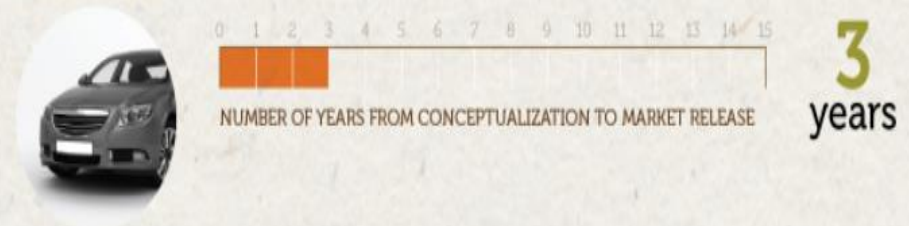


Image from: <http://www.boeing.com/boeing/commercial/787family/>

### AUTOMOBILES<sup>4</sup>



### Heinz New Ketchup Packets<sup>5</sup>

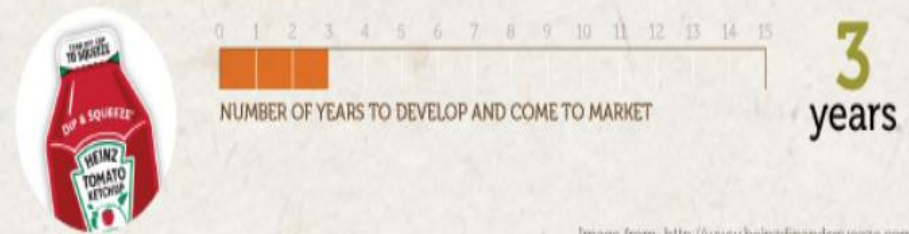


Image from: <http://www.heinzdipandsqueeze.com/>

### XBOX 360<sup>6</sup>

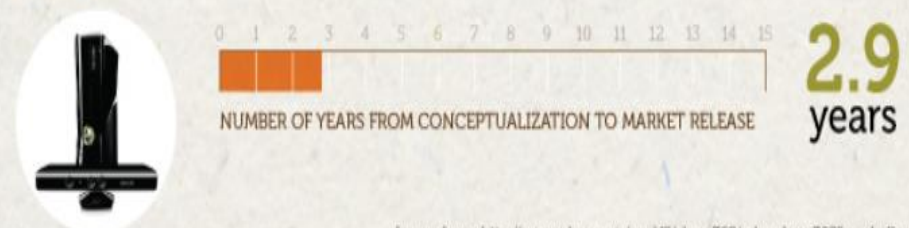


Image from: <http://www.xbox.com/en-US/xbox-360/why-xbox-360?x=shellnav>

### SOURCES:

- <sup>1</sup> Phillips McDougall, "The cost and time involved in the discovery, development and authorization of a new plant biotechnology derived train." September 2011.
- <sup>2</sup> <http://ca.biomed.org/pdf/media-kit/fact-sheets/cbrdrugdevelop.pdf>
- <sup>3</sup> [http://seattletimes.com/html/boeingaerospace/201009566\\_787timeline15.html](http://seattletimes.com/html/boeingaerospace/201009566_787timeline15.html)
- <sup>4</sup> <http://www.quora.com/Automobile-Design-How-long-does-it-take-to-develop-a-car-design-from-scratch>
- <sup>5</sup> <http://online.wsj.com/news/articles/SB1000122053111904194604576578691502176606>
- <sup>6</sup> <http://www.thefreelibrary.com/Xbox-360--Gaming-Redefined-A01073864285>

Wholly or partially funded by one or more Checkoff programs

# Consensus on Safety by International Science and Health Organizations



1

## THE AMERICAN MEDICAL ASSOCIATION (Chicago)

"There is no scientific justification for special labeling of genetically modified foods. Bioengineered foods have been consumed for close to 20 years, and during that time, no overt consequences on human health have been reported and/or substantiated in the peer-reviewed literature."

2

## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (Washington, D.C.)

"The science is quite clear: crop improvement by the modern molecular techniques of biotechnology is safe."

3

## THE NATIONAL ACADEMY OF SCIENCES (Washington, D.C.)

"To date more than 98 million acres of genetically modified crops have been grown worldwide. No evidence of human health problems associated with the ingestion of these crops or resulting food products have been identified."

4

## FOOD STANDARDS AUSTRALIA NEW ZEALAND (Australia & New Zealand)

"Gene technology has not been shown to introduce any new or altered hazards into the food supply, therefore the potential for long term risks associated with GM foods is considered to be no different to that for conventional foods already in the food supply."

5

## THE FRENCH ACADEMY OF SCIENCE (France)

"All criticisms against GMOs can be largely rejected on strictly scientific criteria."

6

## THE ROYAL SOCIETY OF MEDICINE (United Kingdom)

"Foods derived from GM crops have been consumed by hundreds of millions of people across the world for more than 15 years, with no reported ill effects (or legal cases related to human health), despite many of the consumers coming from that most litigious of countries, the USA."

7

## THE EUROPEAN COMMISSION (Belgium)

"The main conclusion to be drawn from the efforts of more than 130 research projects, covering a period of more than 25 years of research, and involving more than 500 independent research groups, is that biotechnology, and in particular GMOs, are no more risky than conventional plant breeding technologies."

8

## THE UNION OF GERMAN ACADEMICS OF SCIENCES AND HUMANITIES (Germany)

"In consuming food derived from GM plants approved in the EU and in the USA, the risk is in no way higher than in the consumption of food from conventionally grown plants. On the contrary, in some cases food from GM plants appears to be superior in respect to health."

9

## SEVEN OF THE WORLD'S ACADEMIES OF SCIENCES (Brazil, China, India, Mexico, the Third World Academy of Sciences, the Royal Society, and the National Academy of Sciences of the U.S.)

"Foods can be produced through the use of GM technology that are more nutritious, stable in storage and in principle, health promoting—bringing benefits to consumers in both industrialized and developing nations."

10

## WORLD HEALTH ORGANIZATION (Switzerland)

"No effects on human health have been shown as a result of the consumption of GM foods by the general population in the countries where they have been approved."



WHERE SCIENCE TRUMPS IDEOLOGY

[www.geneticliteracyproject.org](http://www.geneticliteracyproject.org)

To play video:  
click on picture in  
Slide Show mode

# GLOBAL STATUS OF COMMERCIALIZED BIOTECH/GM CROPS

IN 2016

# Topics discussed in Food, Inc. about Monsanto

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# Food, Inc. Suggests...

The food industry influences product labeling laws to protect their earnings

## What are the facts?

- Our food labeling laws in the US are regulated by the FDA and food companies adhere to these strict requirements
- The biotech industry supports volunteer labeling such as Certified USDA Organic label and GMO Project
- We cannot support a label that conveys to consumers that food made from farmers' crops grown using GMO seeds are less safe, nutritious or different from conventional or organic food
- A patchwork of different state labeling laws will cause an increase in the cost of food to the consumer
- If any food, including GM food, presented a safety risk—for example, those allergic to a food ingredient—we most certainly would support a mandatory label on that food alerting consumers to this concern



# **BUT WAIT! Food, Inc. and Monsanto do share values...**

- Everyone should have access to safe, nutritious and affordable food. We have families, too
- We should know where our food comes from
- Each farmer is now able to feed more people than before- which is necessary in our growing population
- Farmers are smart business people and care about their land, crops and animals!

**Why is this  
conversation  
important to you?**

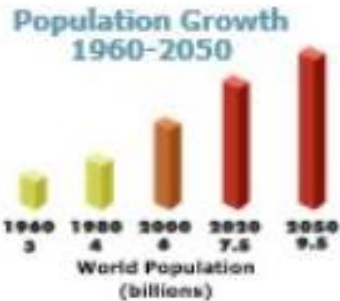
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**Our Planet Faces  
Some Real  
Challenges**

MONSANTO



# 2X Food Demand by 2050 in a more challenging production environment



**Demand For Healthier Options**



**Limited Farmland**



1990

2013

**Changing Climate & Declining Arable Land**



**Decreasing Water Availability**



**Evolving Ag Policies**

Source: U.S. Census Bureau, International Data Base, June 2010 Update. And UN FOA

Source: Ray DK, Mueller ND, West PC, Foley JA (2013) Yield Trends Are Insufficient to Double Global Crop Production by 2050. *PLoS ONE* 8(12): e82875. doi:10.1371/journal.pone.0082875



# We can meet with needs of the future, using these innovations



## Crop Protection

New technologies that improve in-field protection



## Biotechnology

Weed, pest and other agronomic traits focus on yield potential

## Breeding

Breeding engine and global library focus on higher yield



## The Climate Corporation

Digital agricultural tools working together to provide valuable data to farmers in a more convenient way

MONSANTO



novozymes



## Microbials

Microbial solutions provide new Ag technology options for soil health, yield, and pests

## Biodirect™ Technology

Approaches to new pest, disease, and honey bee health



MONSANTO



# Consumer Benefits- Increased Crop Production

Between 1996 and 2015, Crop Biotechnology was responsible for an additional:



**25.2M**

**Metric Tons  
of Cotton Lint**



**357.7M**

**Metric Tons  
of Corn**



**180.3M**

**Metric Tons  
of Soybeans**

# Economic Benefits

- Economic gains of ~US\$168 billion were generated globally by biotech crops between 1996 to 2015.

**30%**

Due to reduced production costs

**70%**

Due to substantial yield gains of 634 **million tons**

Biotech crops in developing countries has already made a significant contribution to the income of >16.5 million smallholder resource-poor farmers in 2015.





# Environmental Benefits

The reduction in pesticides from 1996 to 2015 was estimated at **619 million kilograms** or **8.1% reduction**

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In 2015 alone, biotech helped prevent an estimated **26.7 billion kg of CO<sub>2</sub> emissions**, equivalent to removing **11.9 million cars** from the road for a year.

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Without biotech, it would take an additional **48.1 million acres** to produce the same amount of food produced in 2015.

Source: ISAAA.org;  
pgeconomics.co.uk





**Thank You**



MONSANTO



# Back up Slides

# Interestingly enough..Part 2

- We pursue saved seed matters for 3 main reasons:
  - ❖ Most of our customers stick to their agreements, but some do not. Those few have an unfair advantage over other farmers, because everyone else is paying for seeds that they are saving illegally
  - ❖ No business in any industry can survive without being paid for its products – this is true for agriculture just like it is for medicine, computer software, environmental science, etc
  - ❖ While it's important to Monsanto to protect our investment, it is extremely important to the entire agricultural community that we continue to reinvest in new and better seed technology

# The Maurice (Moe) Parr case

Case where legal action was finally taken as a last resort

After years of efforts to manage the problem in other ways, Monsanto sought resolution from the court

Monsanto in good faith agreed to forego the financial judgment as long as he honors the terms of the court order

Parr received clear communication about the patent law around Roundup Ready soybeans and knowingly disregarded this information



# Case of farmer Troy Roush

Case centered on patent infringement

Although Roush is a harsh critic, he is still a customer of Monsanto

Roush comment: Patented seeds has pitted farmer against farmer

Monsanto Response: Seed patents are not the cause of farmers' disputes but rather, an unfair playing field created by those who choose to ignore the law and their agreements

Comment: Patent infringement has been a contentious issue in some communities where it has occurred

Monsanto Response: it is often other farmers that make companies aware of saved seed cases

# Case of farmer Dave Runyon

Case where Monsanto had reason to believe seeds were being illegally saved

Mr. Runyon was approached regarding our concerns, and he indicated he used only conventional soybeans

Monsanto would happily reconsider our business relationship if Mr. Runyon works to address the concerns about the prior circumstances

It was clear Mr. Runyon did not want to do business with Monsanto, so the business relationship was ended-  
**no litigation**

# Case of Anonymous farmer

During an anonymous interview in the film, a farmer declared this was due to a "gag" order

True- Monsanto will not discuss specifics of seed patent infringement cases if so directed by court order or settlement agreement

False- Monsanto requires these confidentiality or "gag" orders

True- Monsanto only requires confidentiality regarding how settlement payments are structured

True- Due to the fact these accommodations have been portrayed as "gag orders" required by Monsanto, we no longer accommodate such requests except under exceptional circumstances

## Interestingly enough..Part 2

- Often the Tobacco Industry is used as an example of corporate interests influencing government decisions:
  - ❖ Scientific Consensus is **NOT** bought by Corporations
  - ❖ The scientific consensus **NEVER** supported the safety of cigarette smoking
  - ❖ There is strong scientific consensus that GM Crops are as safe as conventional crops

BIOTECH CROP SAFETY IS OVERWHELMINGLY ENDORSED BY:

# HEALTH AUTHORITIES

"No effects on human health have been shown as a result of the consumption of GM foods by the general population in the countries where they have been approved."

- WORLD HEALTH ORGANIZATION



WORLD HEALTH ORGANIZATION (WHO) • AMERICAN MEDICAL ASSOCIATION (AMA)  
ROYAL SOCIETY OF MEDICINE (UK) • BRITISH MEDICAL ASSOCIATION • HEALTH CANADA



# SCIENTIFIC EXPERTS

"The science is quite clear: crop improvement by the modern molecular techniques of biotechnology is safe."

- AMERICAN ASSOCIATION FOR  
THE ADVANCEMENT OF SCIENCE



AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS) • NATIONAL ACADEMIES OF SCIENCE OF MANY COUNTRIES  
NETWORK OF AFRICAN SCIENCE ACADEMIES (NASAC) • EUROPEAN ACADEMIES SCIENCE ADVISORY COUNCIL (EASAC)  
INTERNATIONAL COUNCIL FOR SCIENCE • PONTIFICAL ACADEMY OF SCIENCE

# GOVERNMENT ORGANIZATIONS

"The use of more precise technology and the greater regulatory scrutiny probably makes GMOs even safer than conventional plants and foods."

- EUROPEAN COMMISSION



EUROPEAN COMMISSION • FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)  
US-FDA • FOOD STANDARDS AUSTRALIA NEW ZEALAND • PHILIPPINES FOOD AND DRUG ADMINISTRATION  
FRENCH FOOD SAFETY AGENCY • CANADIAN FOOD INSPECTION AGENCY  
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)



Source: Croplife.org

# Safety of GM Foods

## GMO RESEARCH, REVIEW AND REGULATION | How Does a GMO Get to Market?

On average, GMOs take **13 years** and **\$130 million**  of R&D **BEFORE** coming to market

The **regulatory process** alone can take **5 to 7 years**

### REGULATORY SCIENCE

**75+ different studies<sup>1</sup>** are conducted to demonstrate each new GMO is:

#### Safe to grow

- Crop grows the same as non-GM varieties
- Crop exhibits expected characteristics (e.g., insect resistance)



#### Safe for the environment and beneficial insects



#### Safe to eat

- Same nutrients as non-GM crops
- No new dietary allergens



### REGULATORY REVIEW

More than **90 government bodies<sup>2</sup>** globally review and approve GMOs. In many countries, multiple agencies are involved in the regulation of GMOs.

GMOs have been grown or imported by **70 countries<sup>3</sup>** since 1996.



### U.S. REGULATORY AGENCY REVIEWS

USDA

Safe to grow



EPA

Safe for the environment



FDA

Safe to eat



<sup>1</sup>Estimated numbers from DuPont Pioneer based on studies from recent biotech applications. <sup>2</sup>Includes agencies reviewing new biotechnology applications from 62 individual countries and 28 EU member countries. <sup>3</sup>Country count cited from ISAAA.org

Interestingly enough..

# IS LABELING REALLY ABOUT OUR "RIGHT TO KNOW" ?

"We are going to force them to label this food. If we have it labeled, then we can organize people not to buy it."

—Andrew Kimbrell, Executive Director, Center for Food Safety

"Personally, I believe GM foods must be banned entirely, but labeling is the most efficient way to achieve this. Since 85% of the public will refuse to buy foods they know to be genetically modified, this will effectively eliminate them from the market just the way it was done in Europe."

—Dr. Joseph Mercola, Mercola.com

"By avoiding GMOs, you contribute to the tipping point of consumer rejection, forcing them out of our food supply."

—Jeffrey Smith, Founder, Institute for Responsible Technology

"With labeling it (GMOs) will become 0%... For you the label issues is vital, if you get labeling then GMOs are dead-end."

—Vandana Shiva, environmental activist