



Public Policy Challenges in Ag Biotechnology

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Public Policy Challenges in Ag Biotechnology

- Global food challenges and Monsanto
- Political landscape and activism
- Recent campaigns
- Current and future issues

Global Food Challenges and Monsanto

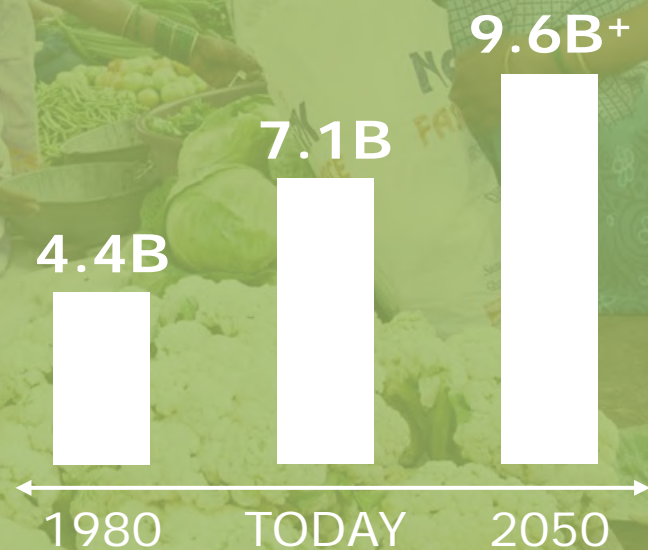
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Rising Population

Growing enough for a growing world



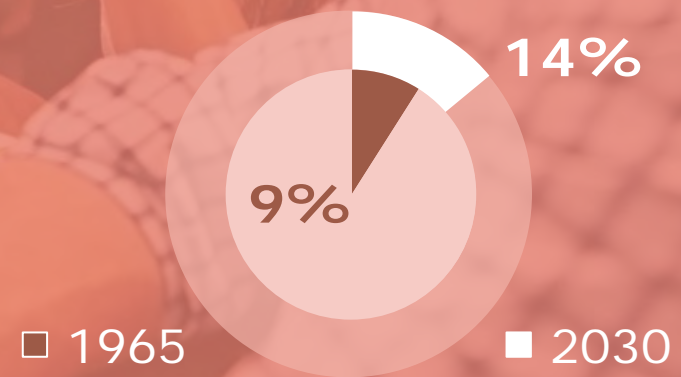
Global Population

Source: <http://esa.un.org/unpd/wpp/>



Changing Economies and Diets

A growing global middle class is choosing animal protein – meat, eggs, and dairy – as a larger part of their diet



Dietary Percentage of Protein

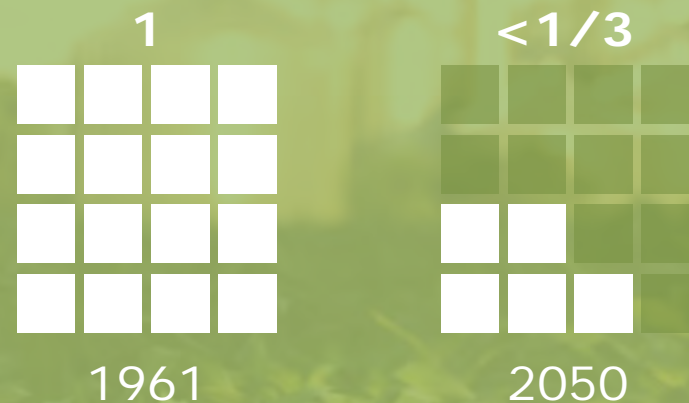
Source: UN FAO Food Balance Sheet, World Health Organization
Global and regional food consumption patterns and trends"





Limited Farmland

Farmers will need to produce enough food with fewer resources to support our world population



Acres per Person





Changing Climate

Farmers are impacted by climate change in many ways:

WATER AVAILABILITY ISSUES

INCREASINGLY
UNPREDICTABLE WEATHER

INSECT RANGE EXPANSION

WEED PRESSURE CHANGES

CROP DISEASE INCREASES

PLANTING ZONE SHIFTS





Our Solutions for Sustainable Agriculture

Our toolkit includes:

- Plant Breeding
- Biotechnology
- Crop Protection
- Precision Agriculture



Our Products and Innovation

SEEDS & GENOMICS

- **Row Crops:** Corn, Soybeans, Cotton and Canola
- **Vegetables:** Open Field and Protected Culture
- **Major Brands:** DEKALB®, Asgrow®, Deltapine®, Seminis® and De Ruiter®

TECHNOLOGY/R&D

- **Breeding**
- **Biotechnology**
- **Industry-leading pipeline**



AG PRODUCTIVITY

- **Roundup® and Selective Chemistries**
- **Roundup Ready PLUS™ Platform**
- **Acceleron® seed treatment products**
- **Lawn and Garden**

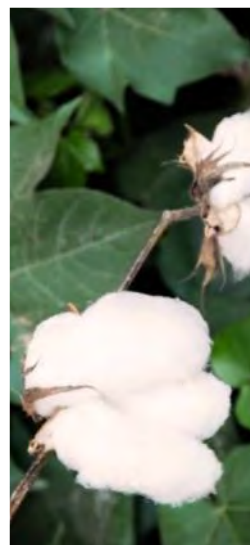
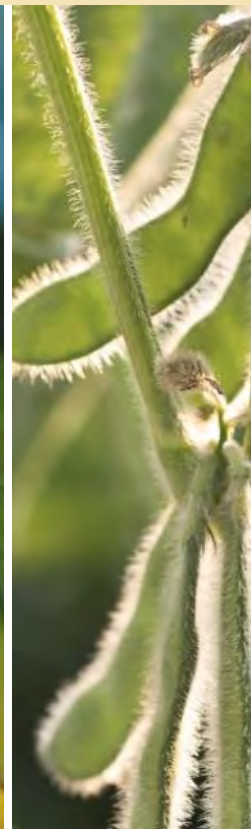
OTHER PLATFORMS

- **Crops:** Wheat, Sugarcane
- **Precision Agriculture**

The Benefits of Biotechnology

Some examples of the benefits of biotechnology

- **CORN** that is tolerant to drought, insects and disease
- **SOY** that can be planted without tilling, preserving precious topsoil
- **COTTON** that is protected from harmful insects
- **PAPAYA** that resists a disease that threatened to wipe out the crop



Political Landscape and Activism

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GET
MONSANTO
OUT OF MY FOOD

BREAST
VIOLENCE

WORLD'S
MOST
SCARY
MONSANTO

LIFE

A
1975

What is Behind the Current Anti-GM Activism?

- This is the third wave of anti-GM activism
- Marketing opportunity for organic/niche foods
- Heightened sense of consumer awareness, facilitated by inexpensive social media campaigns
- Anti-biotech activists are better organized, more well-funded, and viewing the current political landscape as a window of opportunity to further their goal of stopping GM crops.
- ...or is it truly “right to know?”

Who Are Anti-GMO Activists?

- Anti-GM advocacy is driven by a core group of individuals and NGOs
- Broadly interconnected and networked, especially through shared funding and social media
- Organic marketing interests fund anti-gm activism, especially natural foods products industry, corporate organics and alternative health companies
- Constructive engagement, discussion not likely – scorched earth policies trump such attempts

Organic
Good for nature
Good for you



"Big Ag"



The (Honest) Views on Mandatory Labeling from Our Opponents

“[R]ather than have two labels, food companies would simply not carry the product, especially if the new label would be the equivalent of a skull and crossbones... This is why we are so committed to this initiative as victory [in California] will likely eliminate genetically engineered foods from the US.” **Dr. Joseph Mercola, March 20, 2012**

“We believe that just like in Europe, consumers will complain to stores, stores will complain to suppliers, and suppliers will go back to farmers. If [Prop 37] passes, it will dramatically reduce the [U.S.] market share of GE foods and ingredients.” **Ronnie Cummins, Founder and Director, Organic Consumers Association, Oct. 27, 2012**

“[A California ballot initiative] may become the pivotal vote to usher GMOs out of our food supply.” **Jeffrey M. Smith, author and anti-biotech advocate, Oct. 3, 2011**

“Once supermarkets begin eliminating GE ingredients from their store brands, that’s the end of genetically modified foods in the United States.” **Andrew Kimbrell, Executive Director, Center for Food Safety, 2000**

“We are always having to explain to newcomers in the movement that the reason we talk about labeling is because it is more doable and we eventually hope labeling laws will lead to an outright ban.” **Austin activist Renu Namjoshi in listserv message to Charles Margulies of Greenpeace, Feb. 2, 2000**

Recent Campaigns and Public Policy

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Labeling: The Landscape

Most broadly organized & funded approach via a coordinated group of NGO's and corporate organic interests

2015 – 24 states, 48 bills;

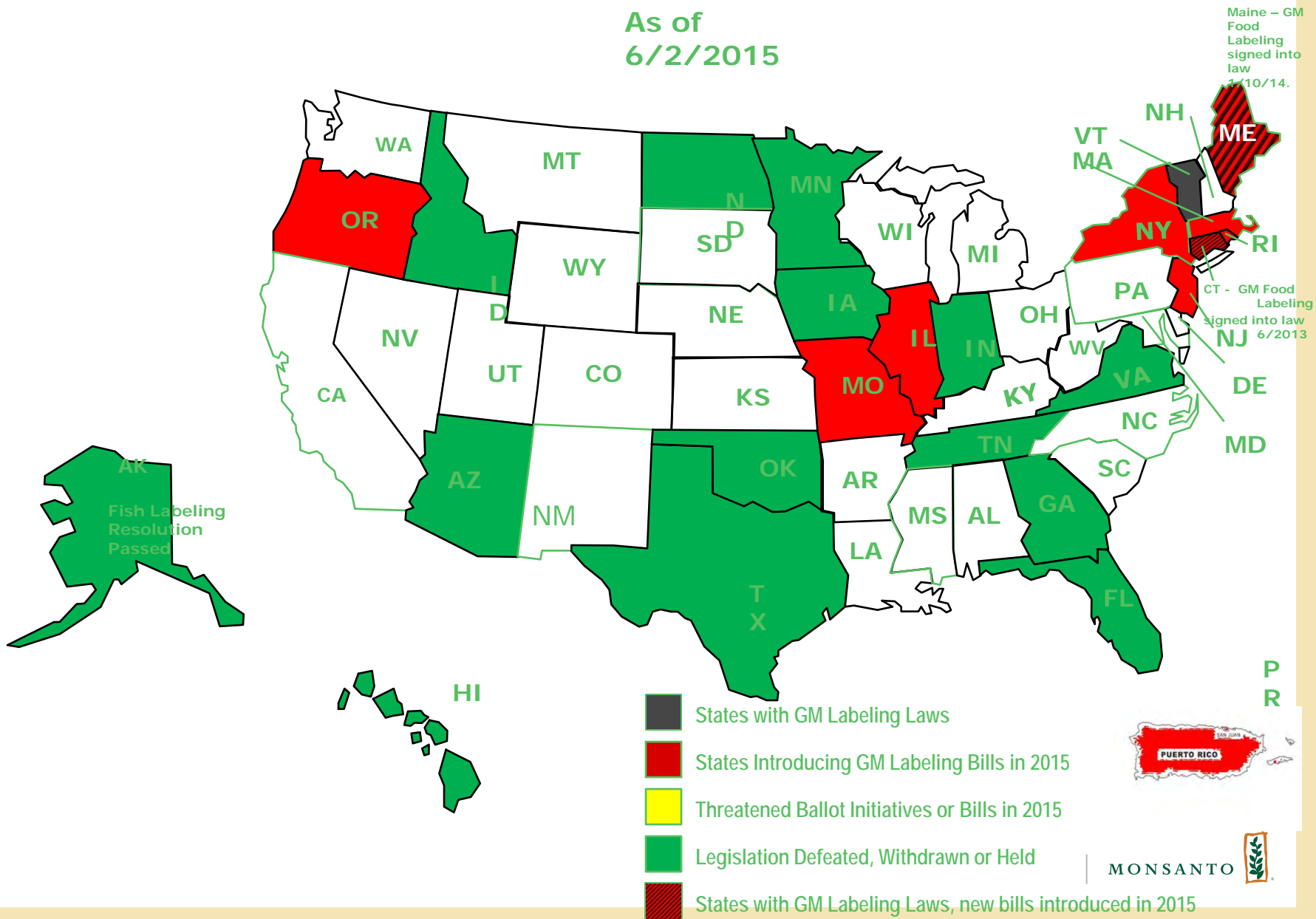
2014 - 30 states, 74 bills, resolutions or initiatives; VT, ME signed

2013 – 26 states, 50 bills; CT signed

FDA policy (in place since 1992)

2015 Biotech Food Labeling Activity

As of
6/2/2015



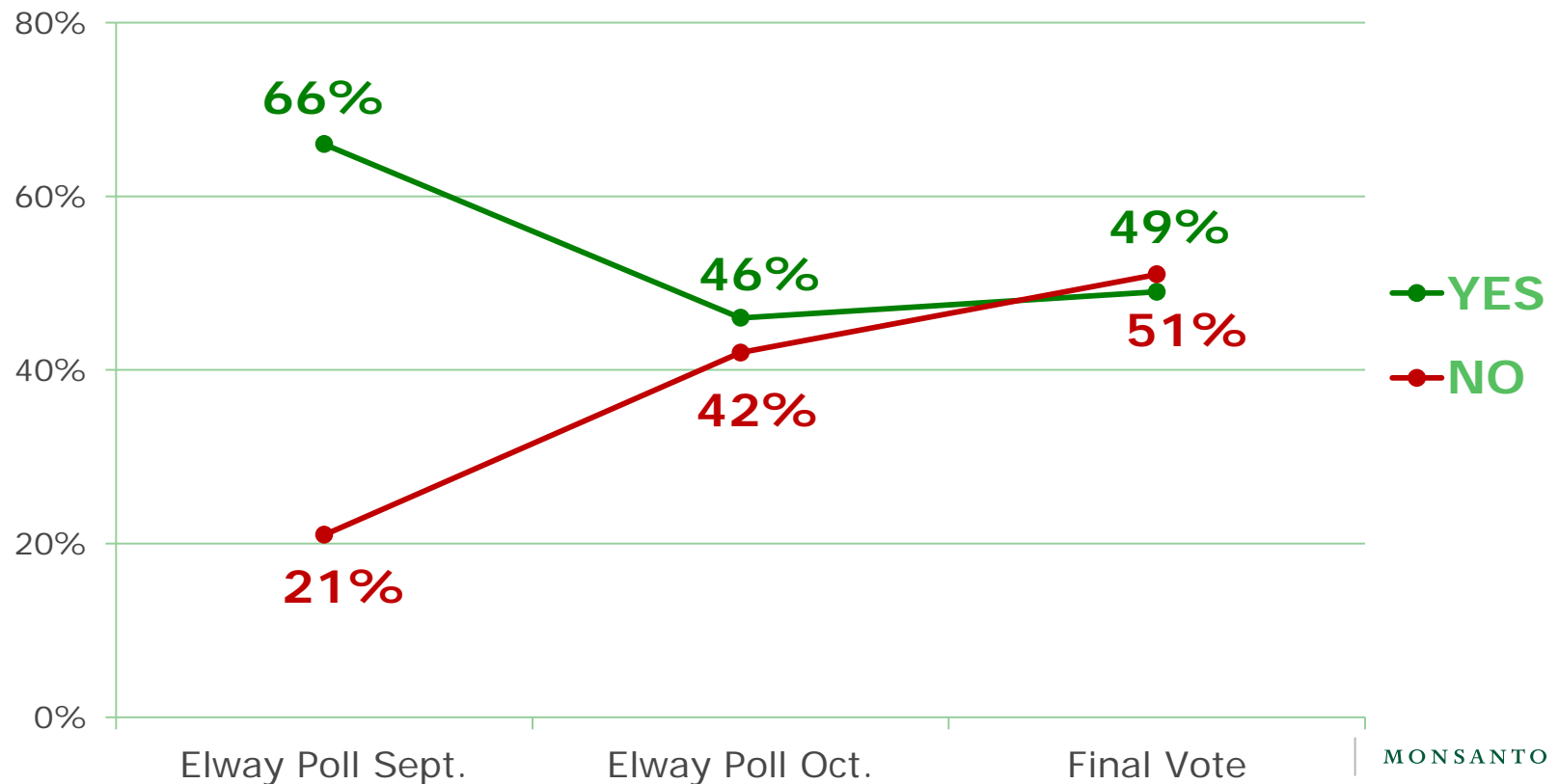
CA Prop 37, WA I-522, CO 105, OR Measure 92

- Experienced firm with a track record of success
- Make connections with credible messengers
- Broad based coalition
- Test the messages, target the movable middle while shoring up the base
- Blanket the airwaves, stay on message, control the conversation in paid and earned media

WA I-522: Historically Dramatic Shift

“I’ve polled 80 or so initiatives in the last 20 years, and I’ve never seen anything like this.”

Veteran pollster Stuart Elway
Washington Post, Nov 1, 2013



What Were the Messages?

Increased food costs

Exemptions

Overlapping regulations

v.

“Right to Know”

Credibility: Messengers are the message



Ken Eikenberry
Former Washington
Attorney General



Brenda Alford
Certified Non-GMO
Farmer



Dan Newhouse
Former Director
WA State Dept of Ag



Peter Marsh, M.D.
Former President
WA State Medical Assn



Steve Cooper
Vice President
WA State Farm Bureau



April Clayton, Ph.D.
Organic Farmer
Chemist



Sarah Zarelli, R.D.
Registered Dietitian



James Cook, Ph.D.
Prof of Plant Sciences
Former Dean, WSU

Expensive and Narrow Victories

CA: \$46 M 51.41% No, 48.59% Yes

WA: \$21 M 51.09% No, 48.91% Yes

CO: \$8 M 65% No, 35% Yes

OR: \$21 M 50.02% No, 49.98% Yes

Current and Future Issues

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The Safe and Accurate Food Labeling Act

Agriculture and Food Associations support bipartisan legislation introduced in March in Congress (HR 1599)

- Clarifies Federal preemption on state labeling
- Clarifies labeling rules on basis of health, safety or material difference
- Mandatory FDA review (currently voluntary)
- Standardization of non-GMO claims
- Defines “natural”

At the Local Level

GM crop bans: San Juan Co (WA), Jackson Co (OR), Josephine Co (OR), Benton Co (OR), Lane Co (OR)

Pesticides: Josephine Co (OR), Lane Co (OR)

Neonic bans: Seattle, Spokane, Olympia/Thurston Co, Portland, Eugene

Glyphosate IARC rating

Statewide preemption: seed and pesticide

Many Groups are Working to Help Provide Credible Information about Agriculture and Biotechnology for the Public

"As a pediatrician and someone who takes care of children and often is speaking with moms who are pregnant, I feel that these foods are completely safe for children. I personally have reviewed the safety data and the evidence that's put together when these foods are about to be put into the general marketplace, and I find that these foods are completely safe. There's no evidence that foods produced using biotechnology pose any risk to children or pregnant mothers."

-Dr. Ronald Kleinman, M.D.

Physician in Chief, Massachusetts General Hospital



external websites

- **BEST FOOD FACTS** features information from university-based experts (PhDs and RDs) on many facets of food production, preparation, and consumption: WWW.BESTFOODFACTS.ORG
- **BIOLOGY FORTIFIED** provides information and fosters discussion about issues in biology with an emphasis on plant genetics and GMOs: WWW.BIOFORTIFIED.ORG
- **COMMON GROUND** promotes conversation between women who grow food and women who buy it: WWW.FINDOURCOMMONGROUND.COM
- **CROPLIFE INTERNATIONAL DATABASE** includes nearly 500 scientific studies chronicling the safety and benefits of agricultural biotechnology: WWW.BIOTECHBENEFITS.CROPLIFE.ORG
- **U.S. FARMERS & RANCHERS ALLIANCE** focuses on creating dialogue around current topics related to food production: WWW.FOODDIALOGUES.COM
- **FOOD INSIGHT FROM THE INTERNATIONAL FOOD INFORMATION COUNCIL** provides numerous resources on GM foods: WWW.FOODINSIGHT.ORG/FOODBIOGUIDE.ASPX
- **GENERA DATABASE** (also by Biology Fortified) makes studies on GM food easy to find: WWW.BIOFORTIFIED.ORG/GENERA/GUIDE/
- **GMO ANSWERS** enables consumers to ask questions about GMOs and get answers from independent and industry experts: WWW.GMOANSWERS.COM
- **GROCERY MANUFACTURERS ASSOCIATION** provides facts and the latest news on GMOs including the food industry's position on mandatory GMO labeling: WWW.FACTSABOUTGMOS.ORG
- **THE INTERNATIONAL SERVICE FOR THE ACQUISITION OF AGRI-BIOTECH APPLICATIONS** provides communication materials and annual updates on the global status of GM crops: WWW.ISAAA.ORG



Thank You

