

Bioengineering and GMOs/ GMFs

GM Atlantic Salmon: 1st GM food animal

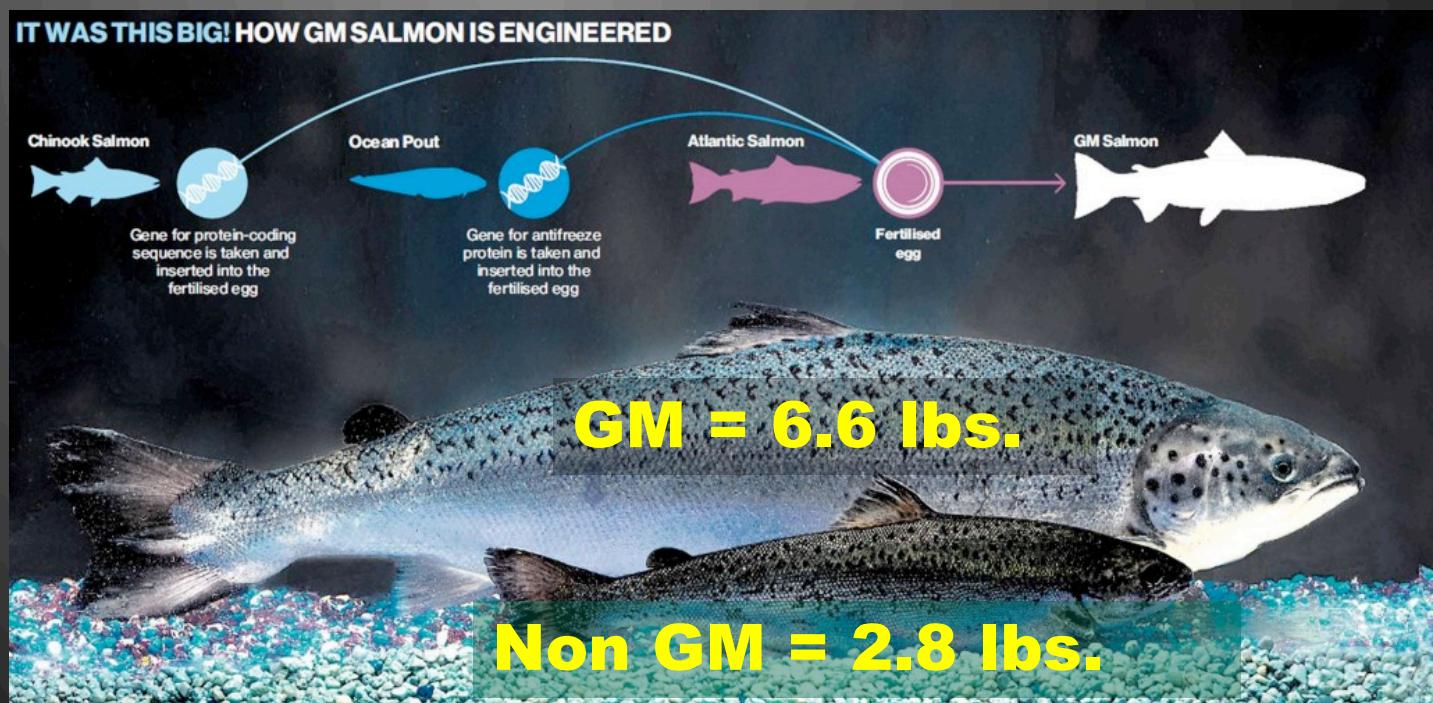
FDA review board:



- “Reasonable certainty of no harm” / OK to eat / for environment
- Detractors worry:
 - Lack of full studies/ “disaster” plans; huge societal repercussions
 - Too low a bar for GMOs? How much risk is acceptable?

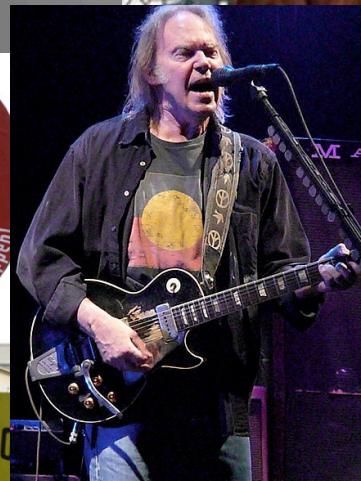
“War
On
Science”
?

Or
Reasonable
Skepticism?



Protests against GM “Frankenfood”

- Public protests
 - Especially in Europe
 - GM soybeans (Soya), etc.
 - Power of corporations
- 2001: UN Commission issues GM safety principles

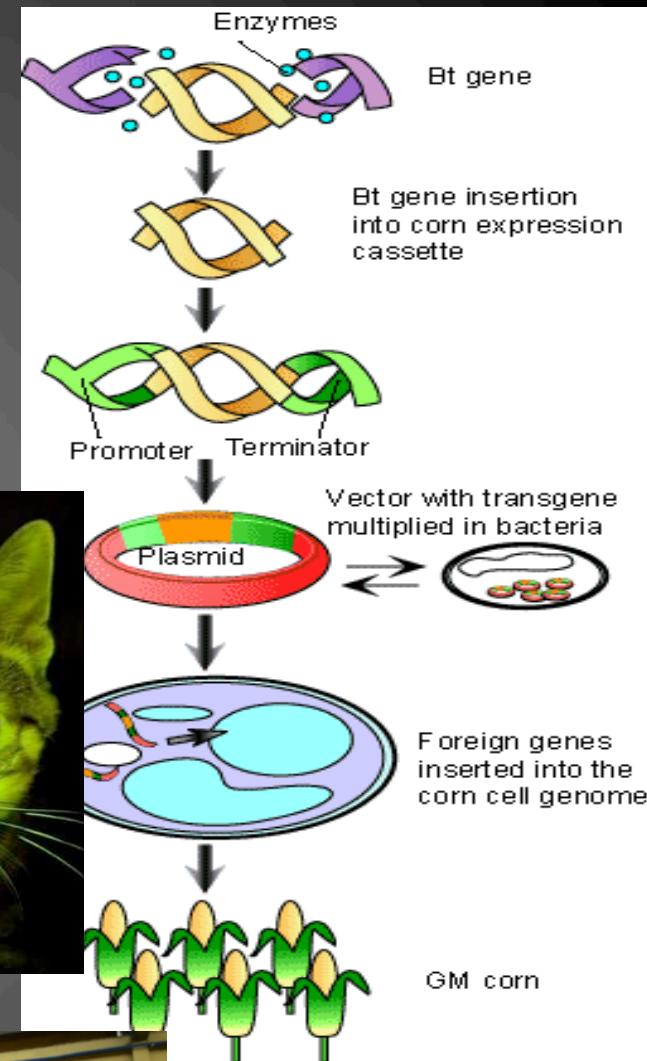


SB Bowl
2015



What is a GMO?

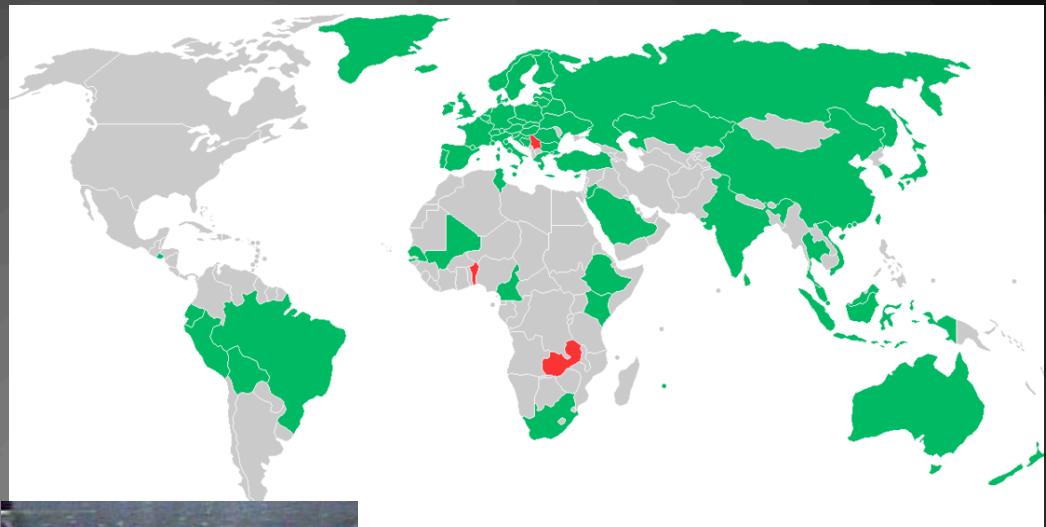
- Non-traditional cross-breeding techniques
- GE more precise than “selective breeding” / natural mutation
- Organism whose genome has been changed through genetic engineering techniques
- “Any organism that has inherited traits of GMO”
(EU, Japan, Australia)
- Protests: health uncertainties, fear of corporate monopolies



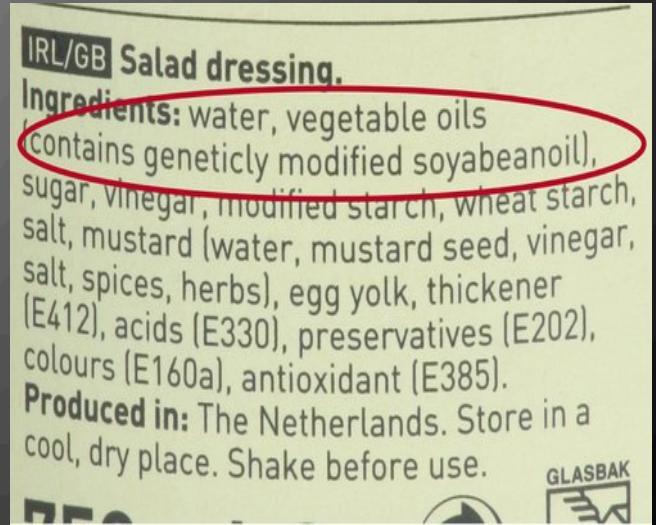
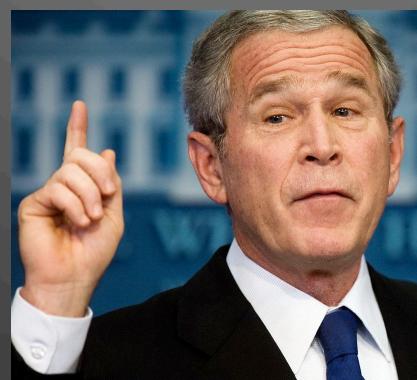
Politics meets science

Why is GM food controversial?

- Bush vs. EU (2003)
- US need for new food markets
- US need for GM seed markets for farmers
- EU labeling of GM foods
- Obama deregulated GM alfalfa & sugar beets 2011

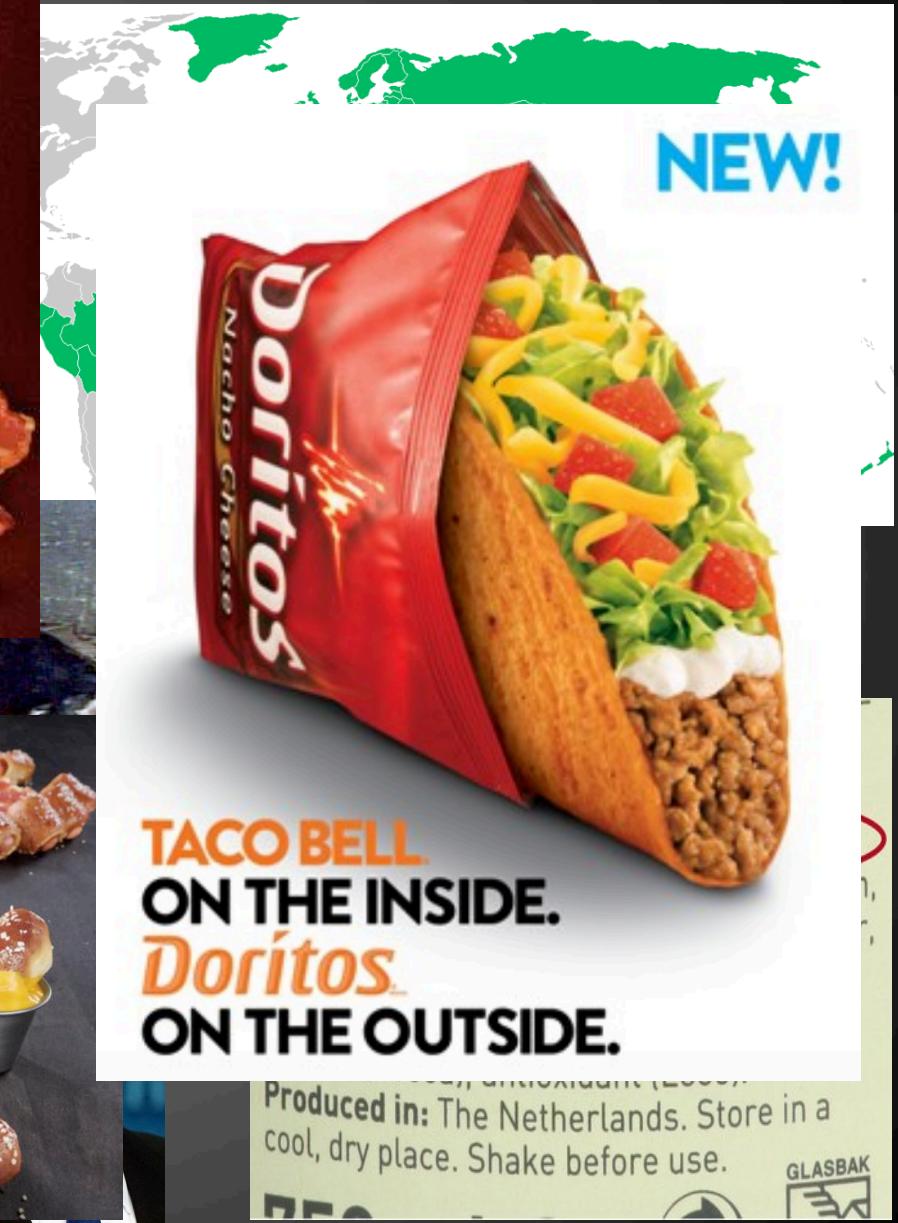


MAD COW OUTBREAK



Why is GM food controversial?

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- Obama deregulated GM
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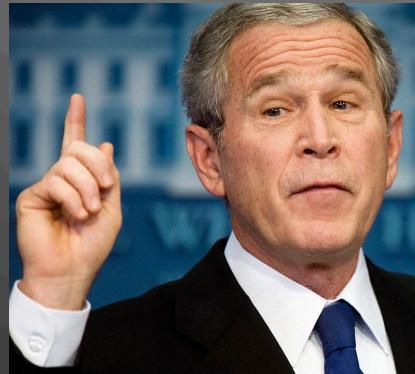
TACO BELL
ON THE INSIDE.
Doritos
ON THE OUTSIDE.

Produced in: The Netherlands. Store in a cool, dry place. Shake before use.

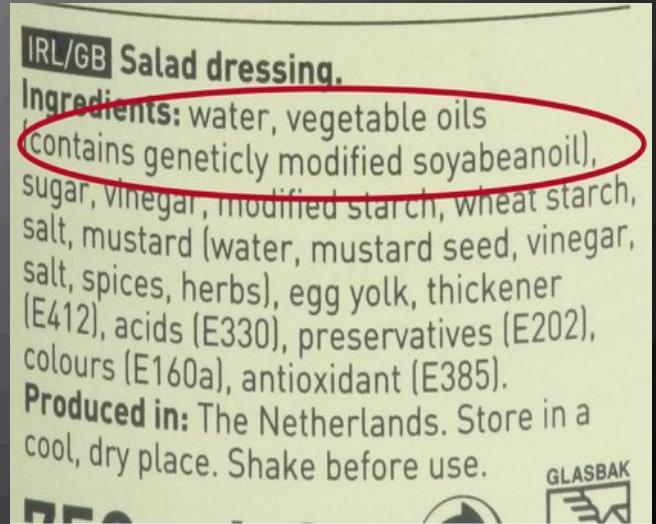
GLASBAK

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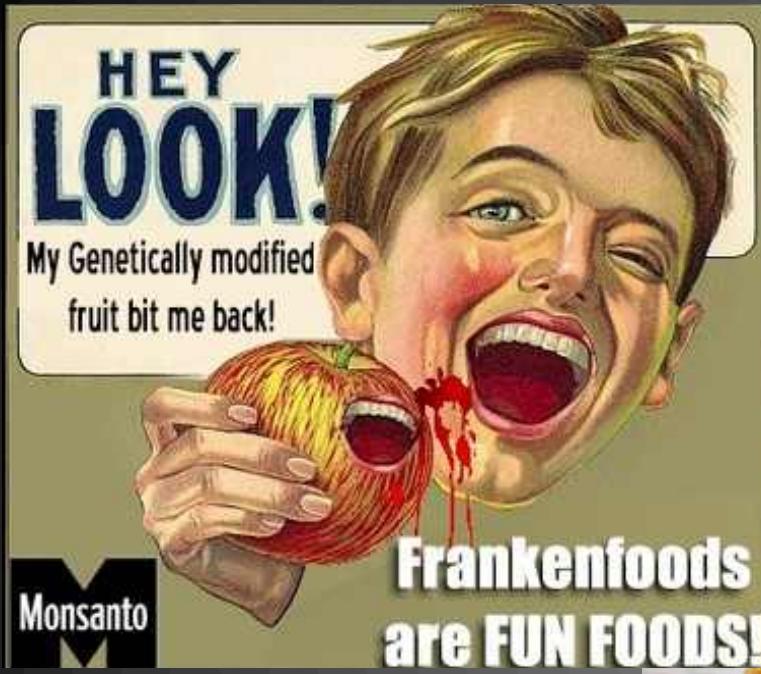
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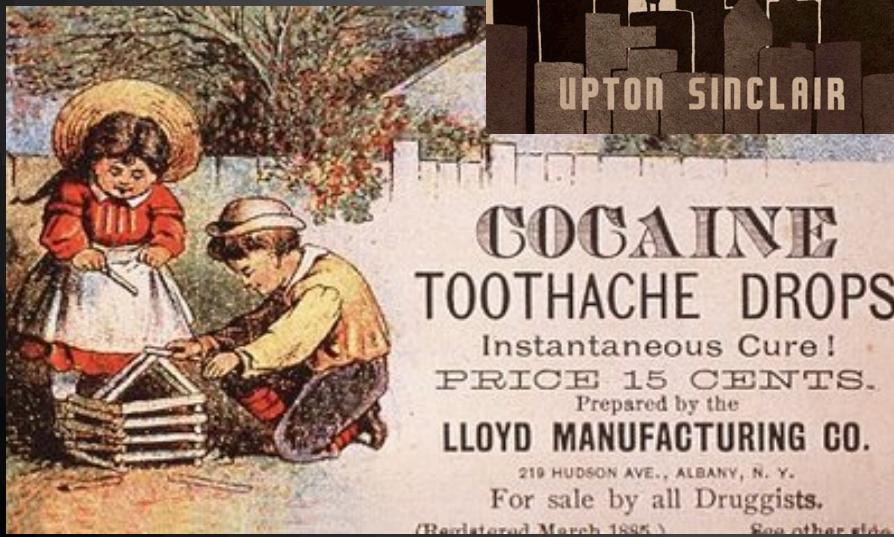
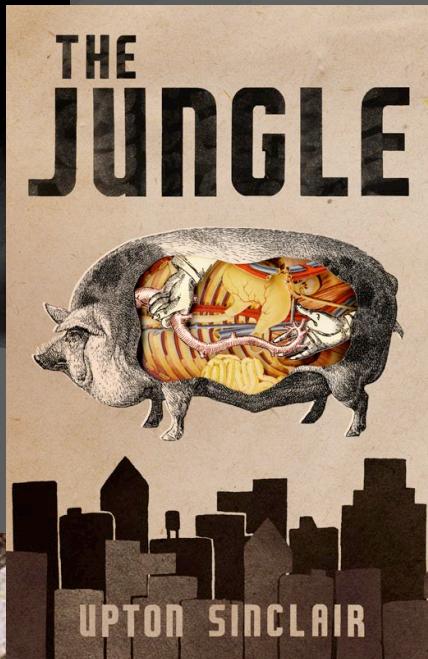
Are GM foods safe to eat?



- Over 60% processed foods are GM
- More than 90% of corn/ soybeans
- Corporations claim safe to eat
- No major outbreaks of illness or allergy (so far)
- No labeling required (in USA)



How are GMOs regulated in US?



- TR and the Muckrakers
- 3 agencies to regulate – USDA, FDA, EPA
- Food & Drug Admin (FDA)
 - Reactive not active
 - “Substantial Equivalence”
 - As safe as conventional
 - Brazil nut soybean case



Food, Inc. (2008)

★★★★ “Scary enough to turn Ronald McDonald into a vegan” ★★★★

Total Film

★★★★

“By turns an absorbing, enraging and entertaining experience”

Little White Lies

Total Film

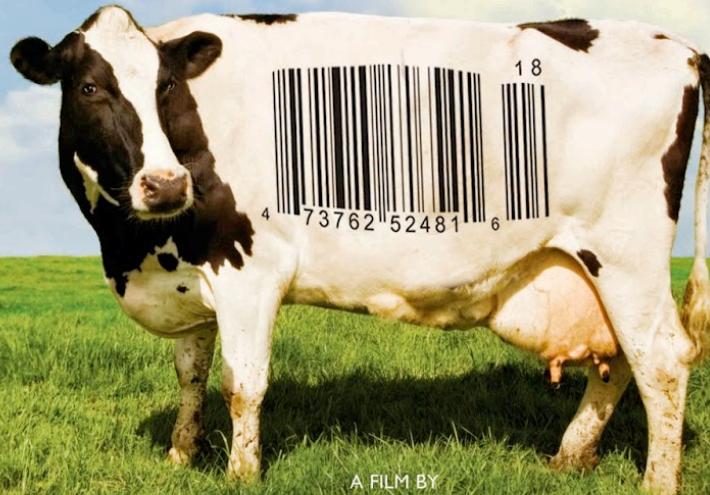
★★★★

Empire

★★★★

Uncut

YOU’LL NEVER LOOK AT DINNER THE SAME WAY



A FILM BY
ROBERT KENNER

FOOD, INC.

DOGWOOD PRESENT A PARTICIPANT MEDIA AND RIVER ROAD ENTERTAINMENT PRODUCTION A FILM BY ROBERT KENNER “FOOD, INC.” MUSIC BY MARK ADLER EDITED BY KIM ROBERTS DIRECTOR OF PHOTOGRAPHY RICHARD PEARCE CO-PRODUCERS ERIC SCHLOSSER RICHARD PEARCE MELISSA ROBLEDO EXECUTIVE PRODUCERS WILLIAM POHLAD ROBIN SCHORR JEFF SKOLL DIANE WEYERMANN PRODUCED BY ELISE PEARLSTEIN

RIVERROAD participant FORTRESSMOTIONS

www.foodincmovie.co.uk

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READ PUBLICAFFAIRS' BOOK: FOOD, INC.

www.dogwoof.com

Sell Association
www.sellassociation.org

dogwoof

Is This Safe For the Environment?



- Pest-resistance (Bt gene)
- Herbicide-tolerance
 - Superweeds?
- Biodiversity & genetic drift
 - Buffer zones in fields
- Unintended harm to other life



Will GM crops solve world hunger?

- 1 in 9 malnourished
- “yellow rice”
- Kenyan sweet potatoes
 - Virus/ Salt resistance
- Is it just marketing?
- Danger of MNC power?
 - “Terminator” seeds
 - Special herbicides needed



Is there an ethical response?



Choices:

1. Oppose GM foods
2. Support GM foods
3. Approach GM foods with caution
 - Precautionary Principle vs. FDA new drug standards

Problem of unknown consequences