

Consumer Trends Shaping the Future of Food

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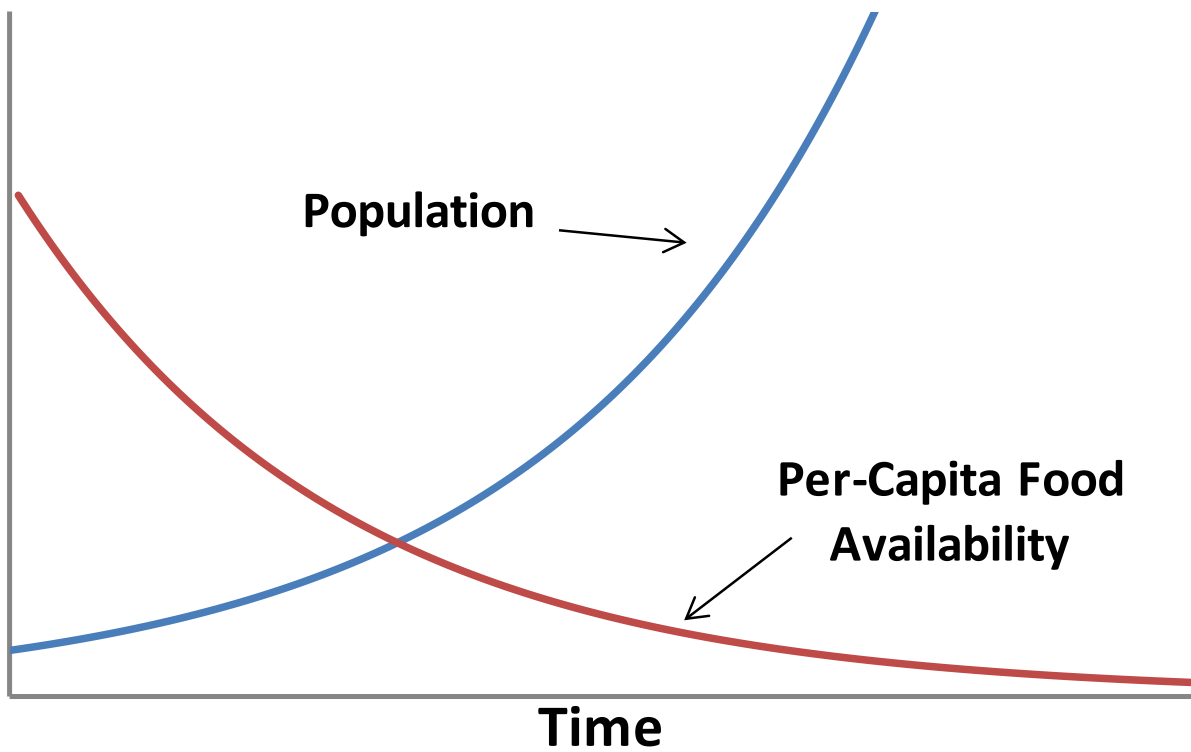
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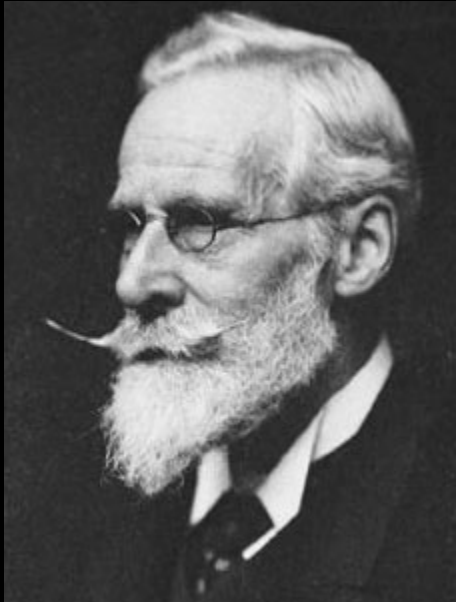
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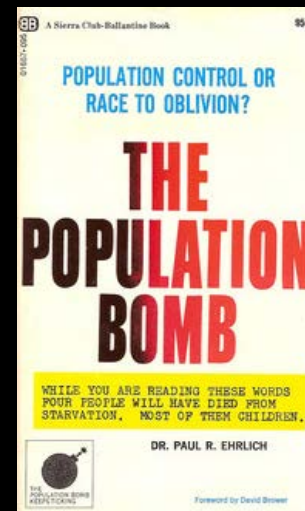
Thomas Malthus
1766-1834



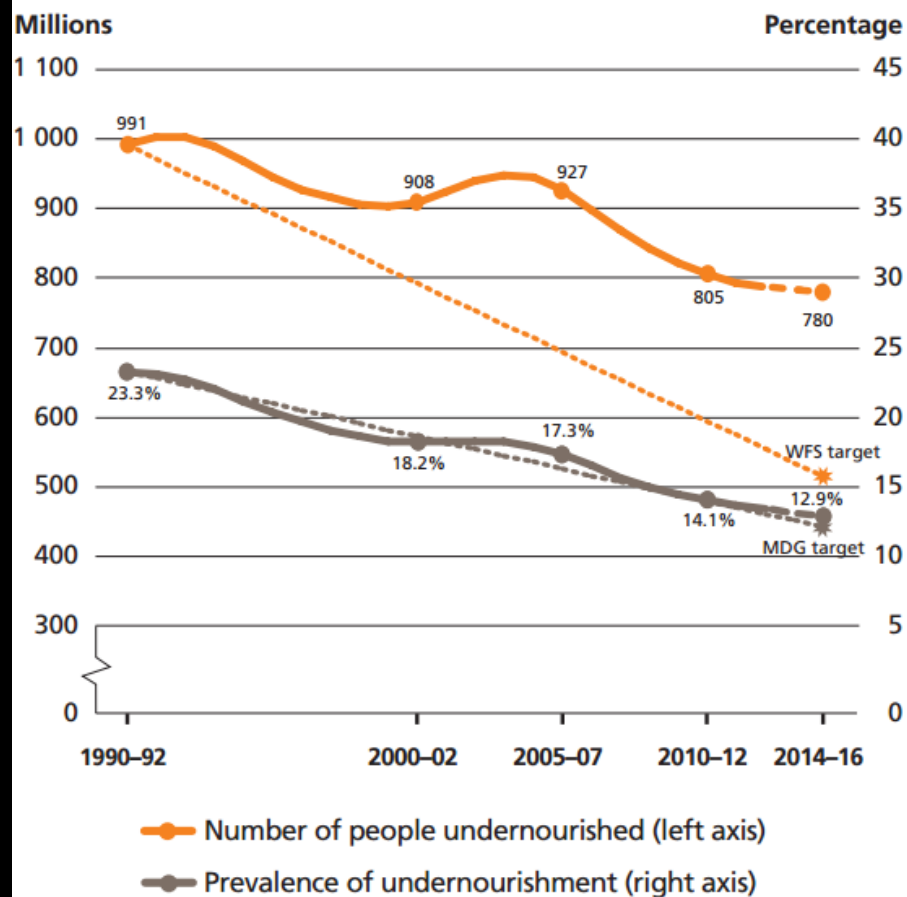
“Civilized nations stand in deadly peril of not having enough to eat. As mouths multiply, food resources dwindle It is almost certain that within a generation the ever-increasing population of the United States will consume all the wheat grown within its borders, and will be driven to import, and . . . will scramble for the lion’s share of the wheat crop of the world.”

-Sir William Crookes presidential address to British Association for the Advancement of Science, 1898

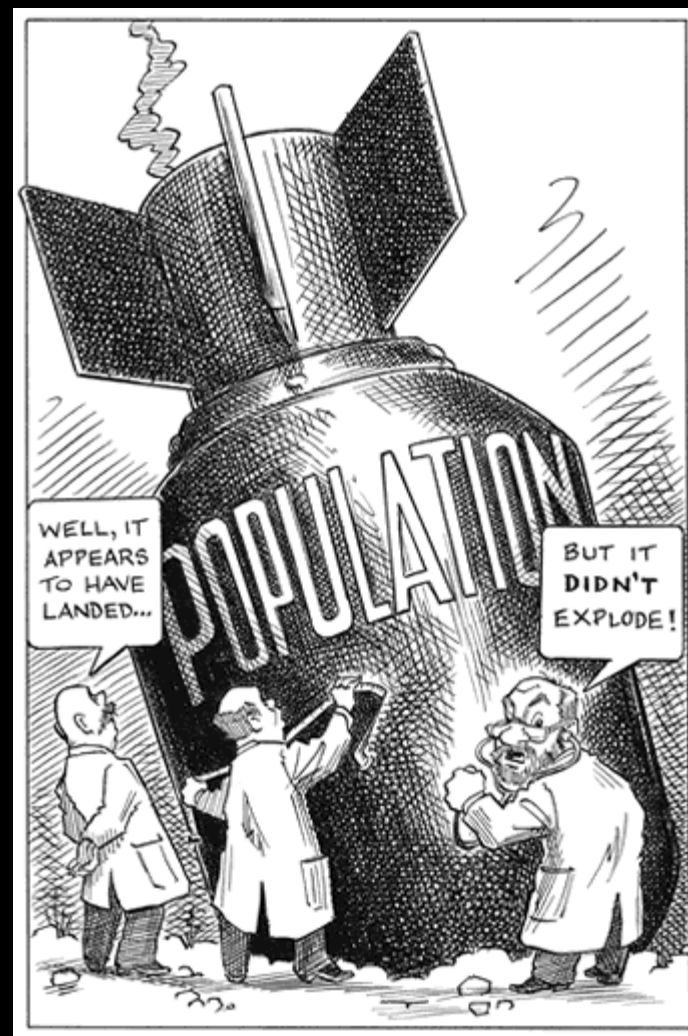
Paul Ehrlich, 1968: “The battle to feed all of humanity is over. In the 1970s hundreds of millions of people will starve to death in spite of any crash programs embarked upon now. At this late date nothing can prevent a substantial increase in the world death rate.”

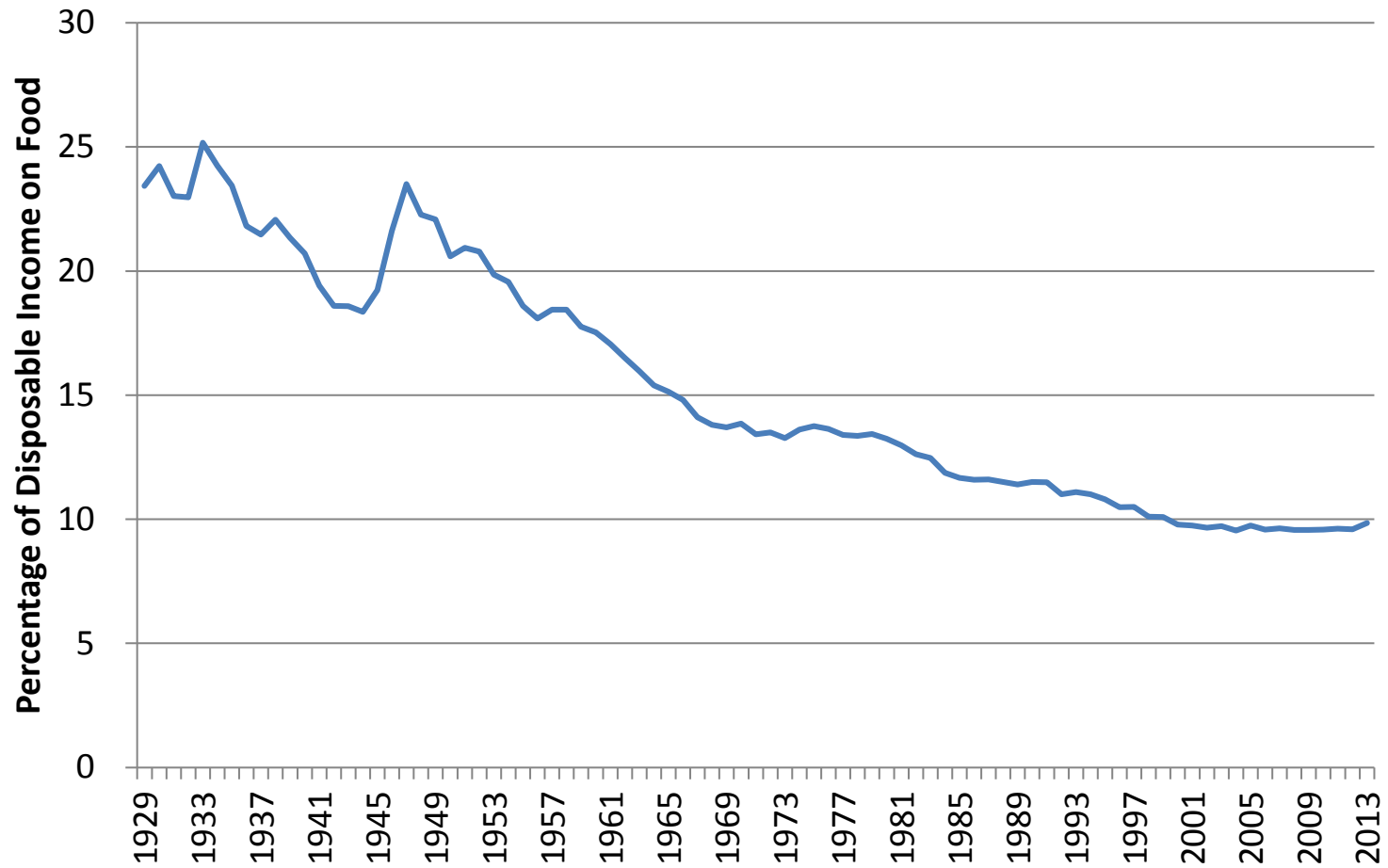


The trajectory of undernourishment in developing regions:
actual and projected progress towards the MDG and WFS targets



Note: Data for 2014-16 refer to provisional estimates.
Source: FAO.





In US less than 10% of disposable income spent on food

Annual income spent on food

(% OF HOUSEHOLD CONSUMPTIVE EXPENDITURES)

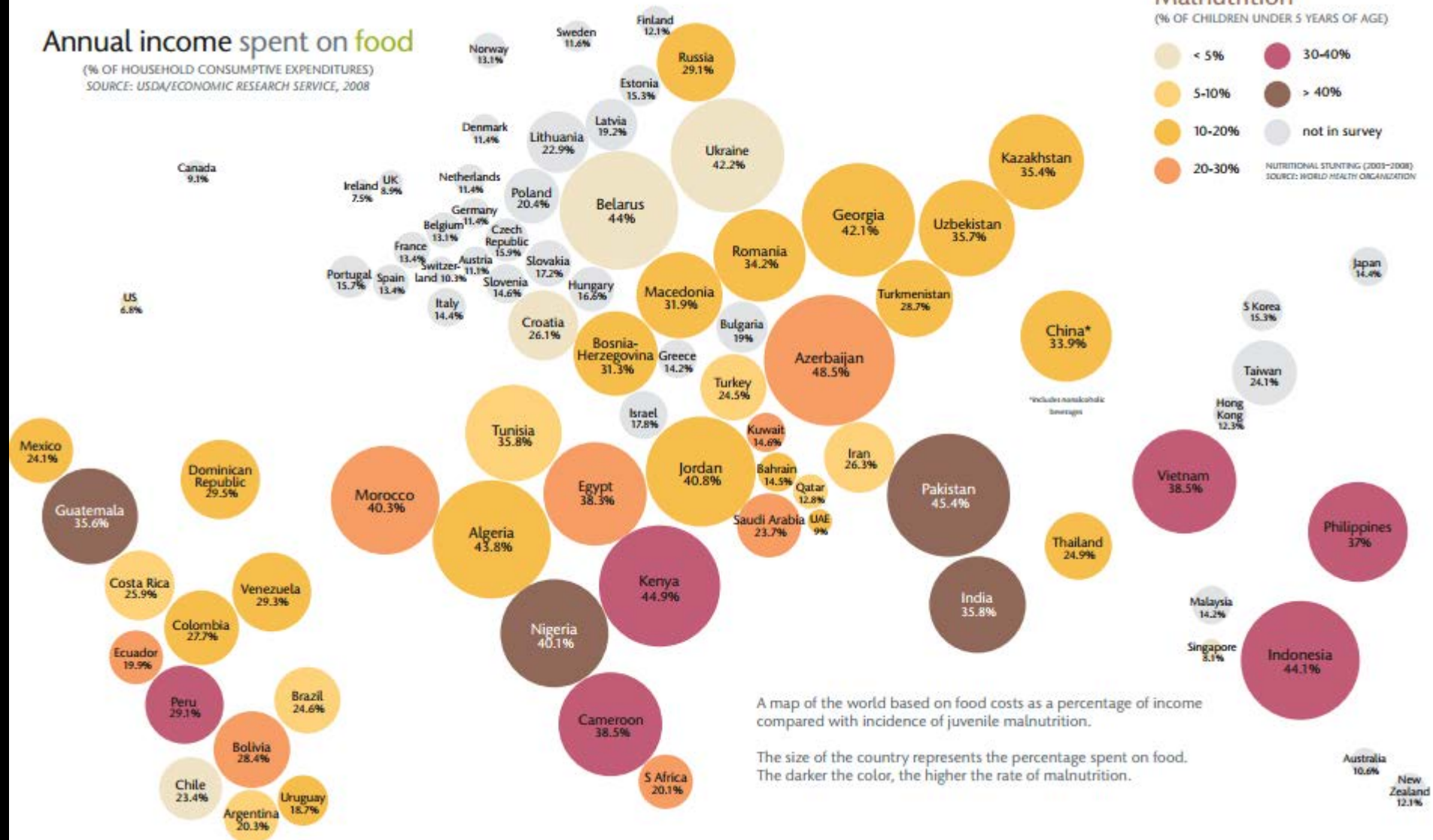
SOURCE: USDA/ECONOMIC RESEARCH SERVICE, 2008

Malnutrition

(% OF CHILDREN UNDER 5 YEARS OF AGE)

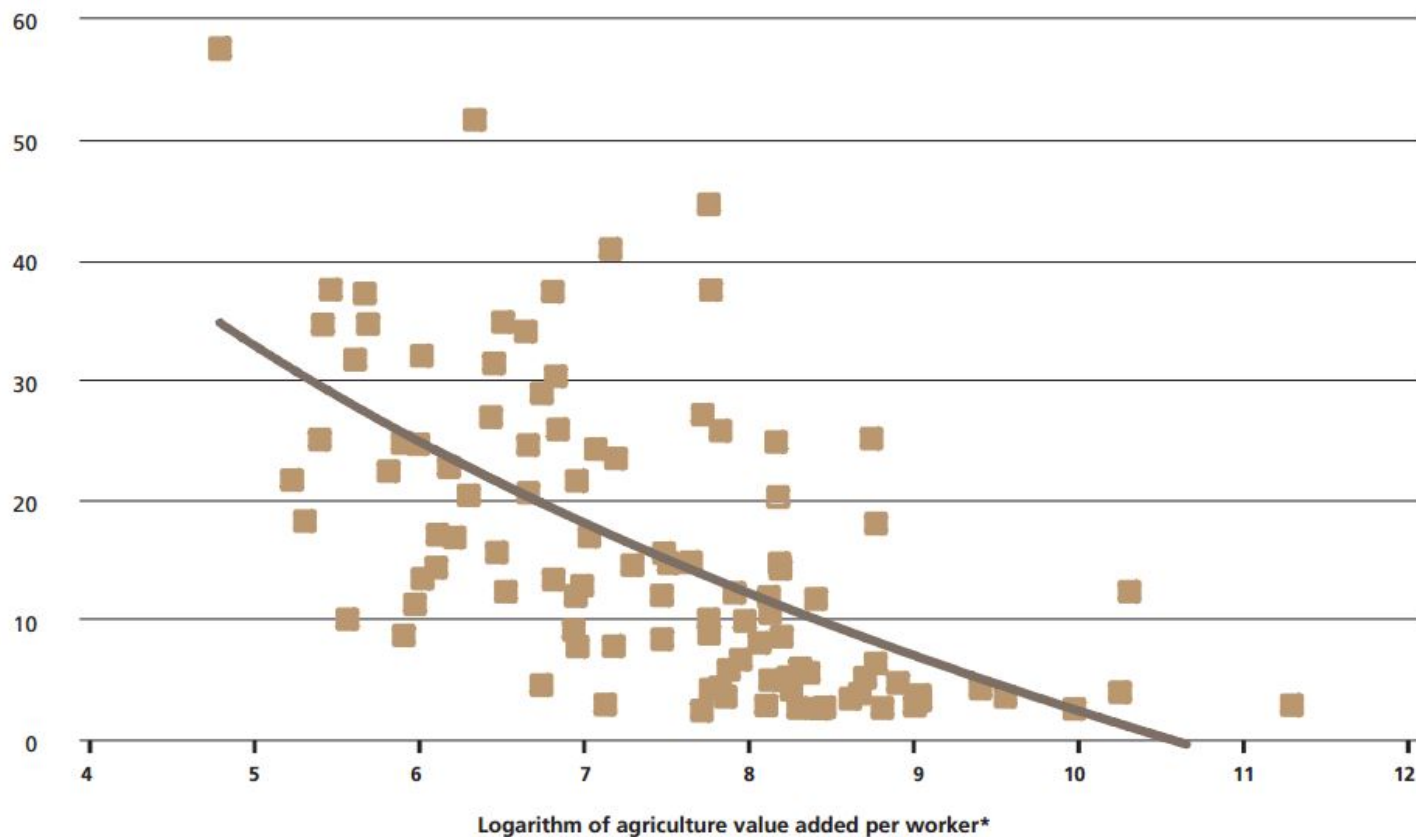


NUTRITIONAL STUNTING (2003-2008)
SOURCE: WORLD HEALTH ORGANIZATION



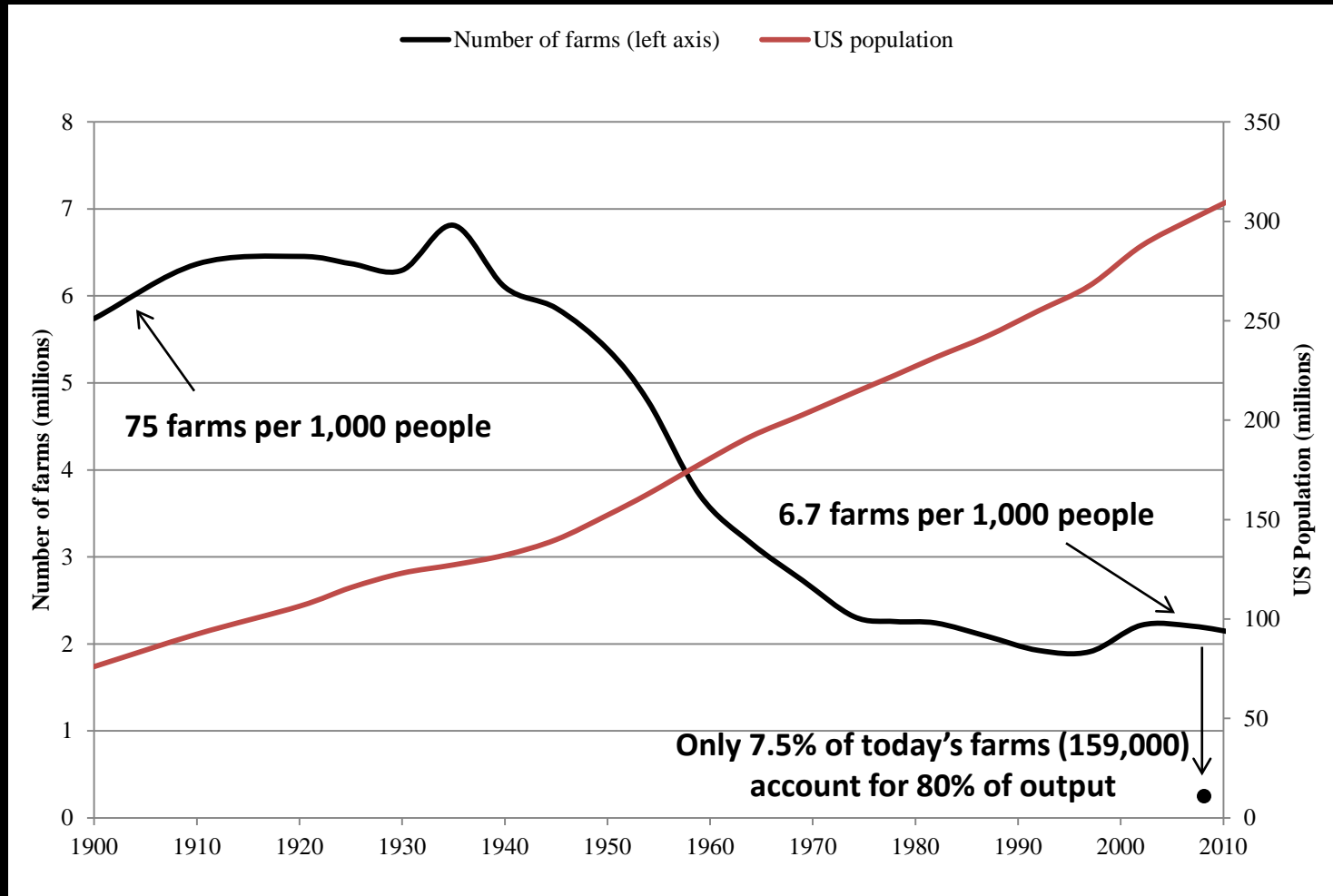
Agricultural labour productivity and prevalence of undernourishment, 2010

Prevalence of undernourishment (%)



*Expressed in constant 2005 US dollars.
Source: FAO and World Bank.

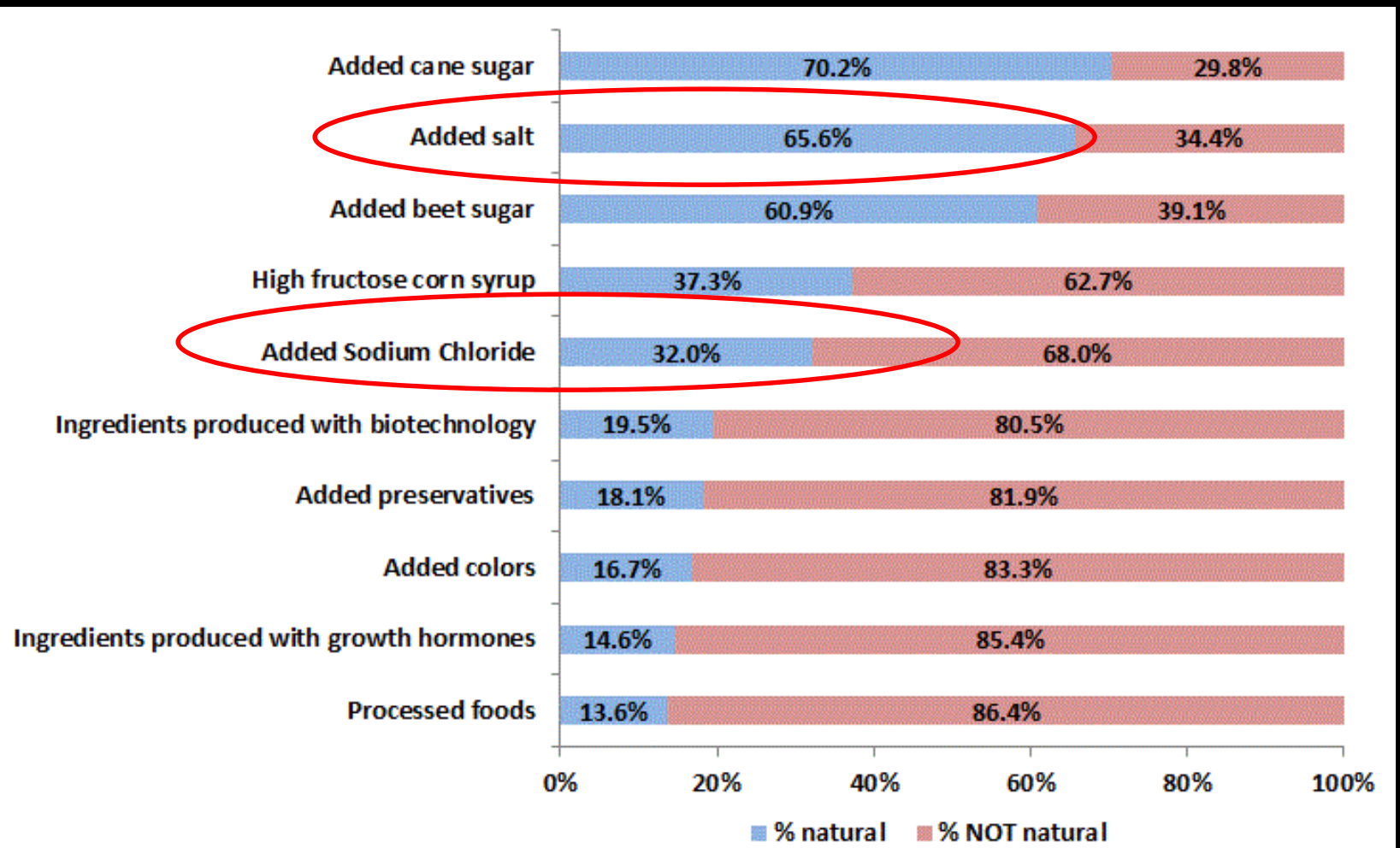
From Farm to Fork



Implications for US Food Consumer

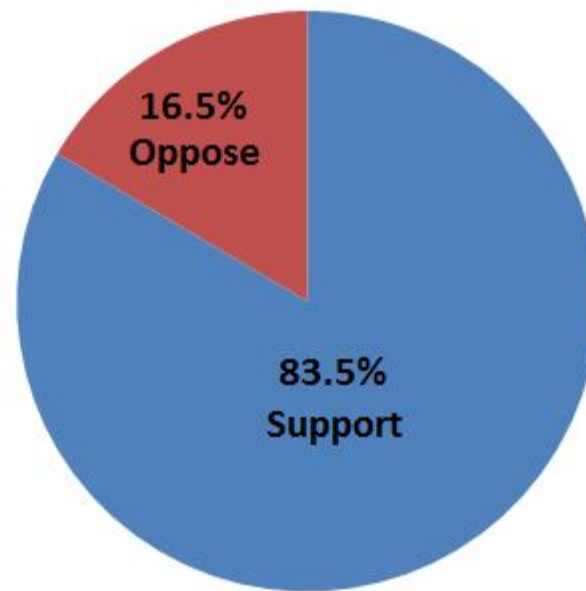
- Food security relatively low concern
- Little connection with agricultural production systems
- Increased demand for “quality”
- Distrust of “Big Food”
- Fascination with “natural”

Is the customer always right?



Source: OSU Food Demand Survey (FoodS)

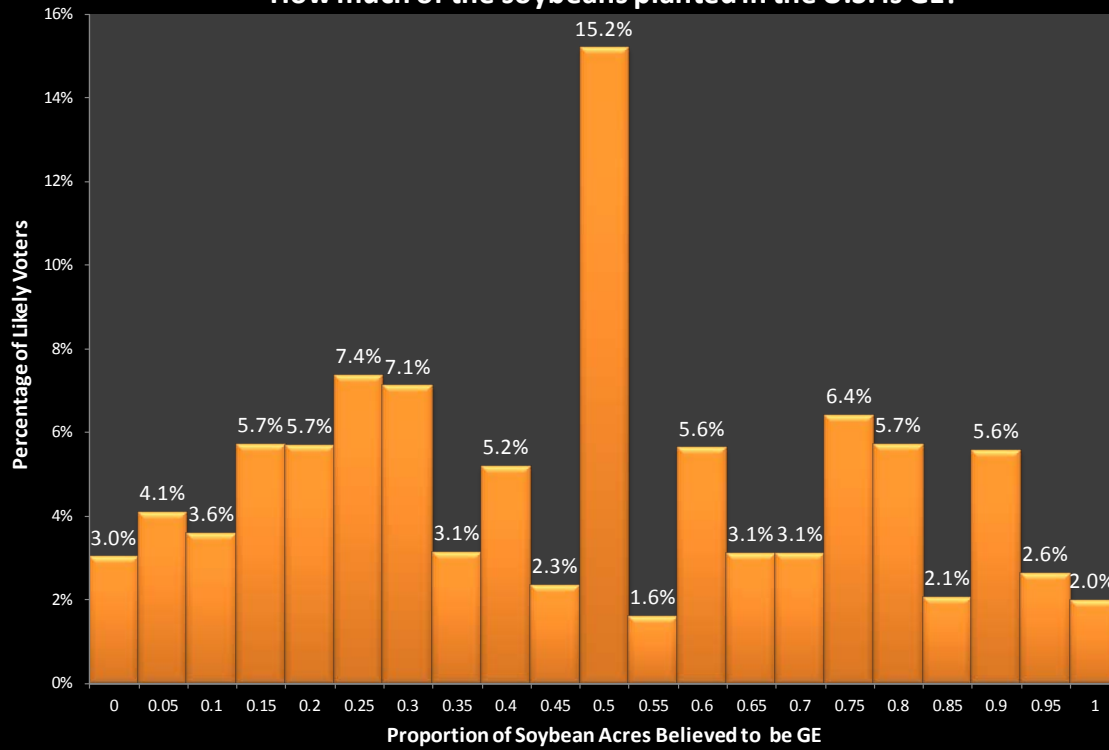
“Do you support or oppose mandatory labels on foods that would indicate the presence or absence of DNA?”



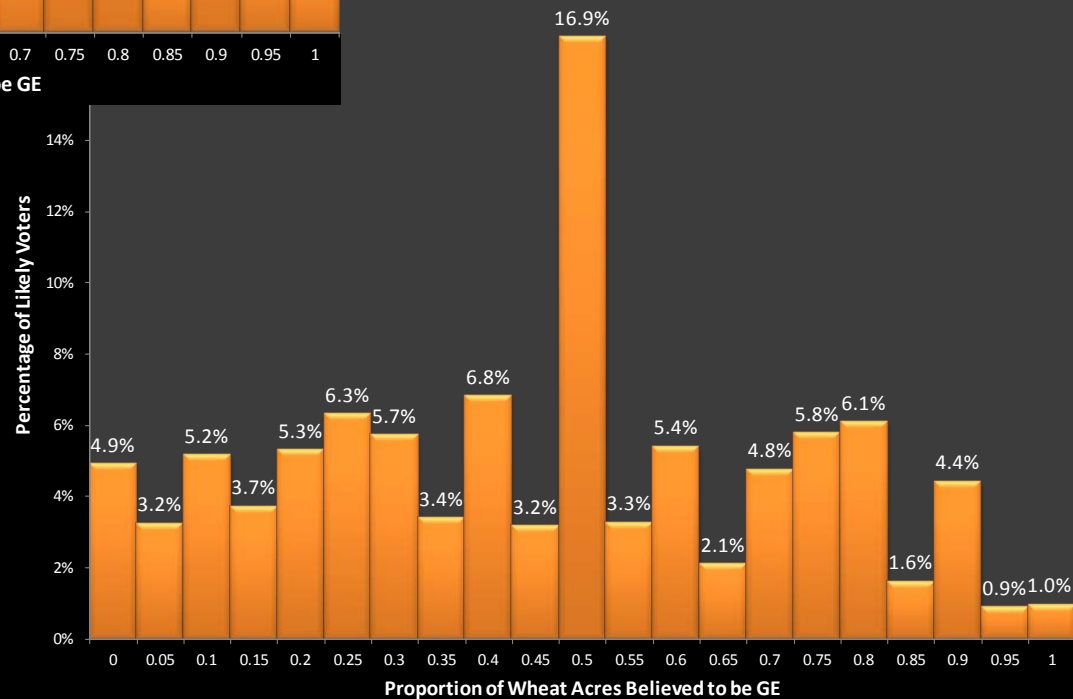
Source: Food Demand Survey (FooDS), Oklahoma State University, February 2015
<http://agecon.okstate.edu/faculty/publications/5010.pdf>

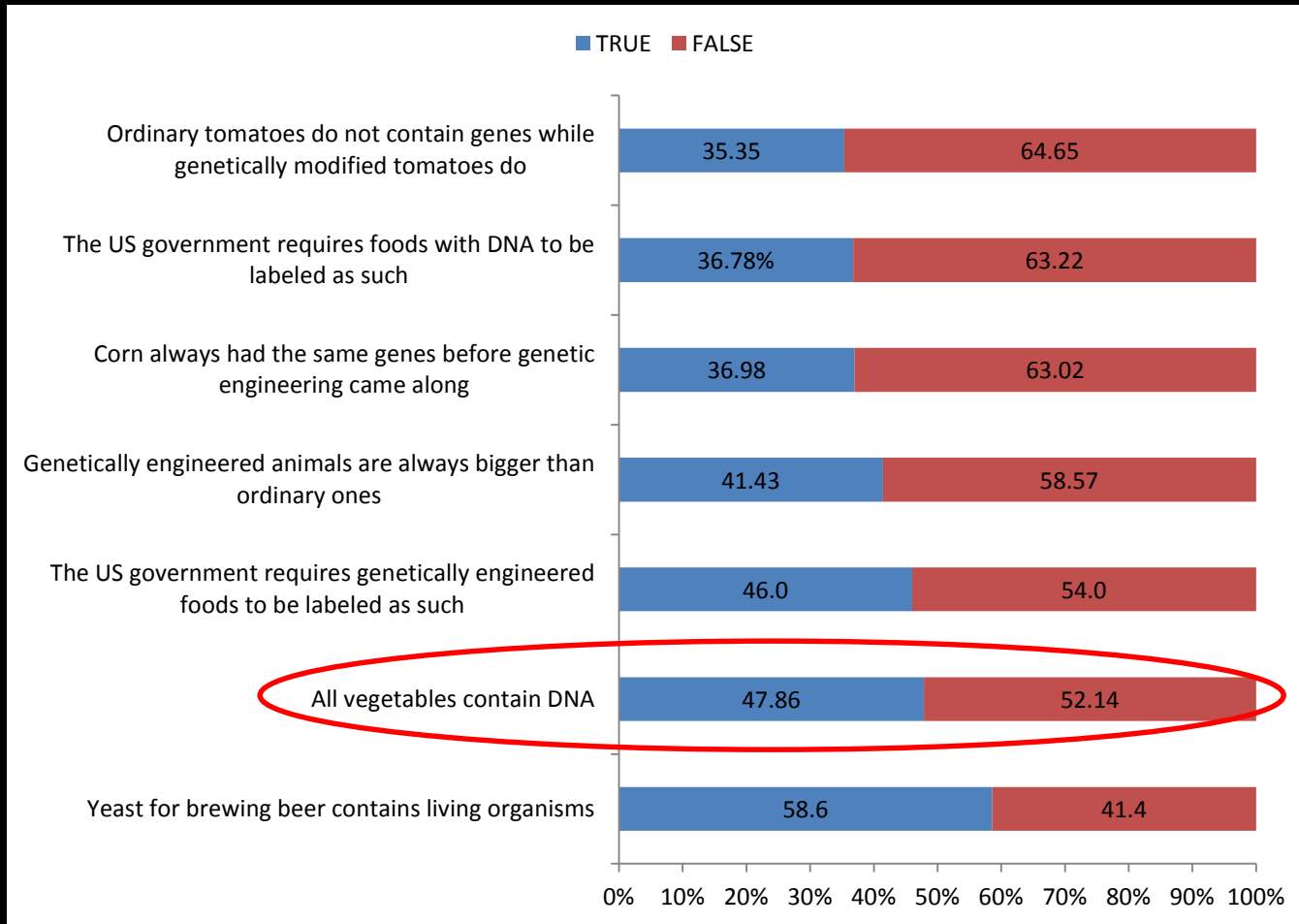
N=1,001
Sampling error = +/- 3%

How much of the soybeans planted in the U.S. is GE?

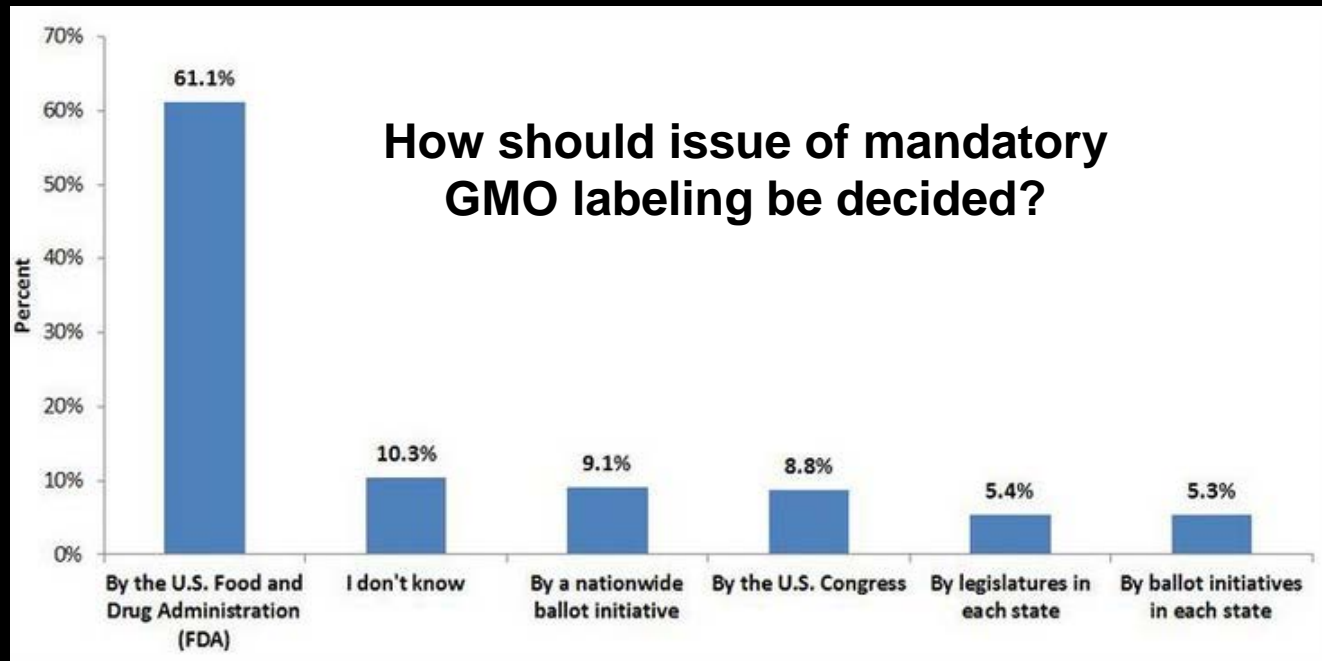


How much of the wheat planted in the U.S. is GE?

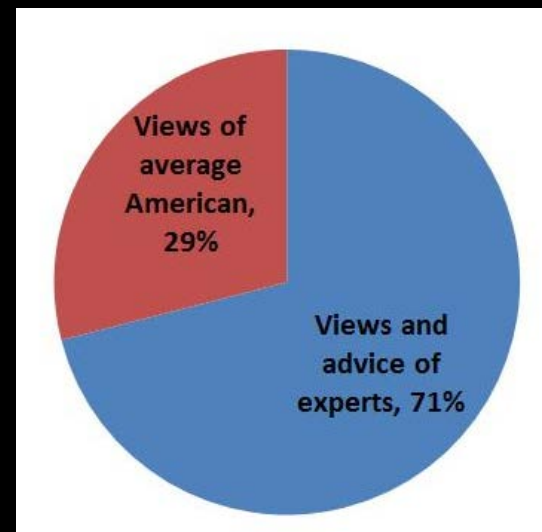




Source: OSU Food Demand Survey (FoodS)



Decisions about labeling of GMO food should be mainly based on . . .

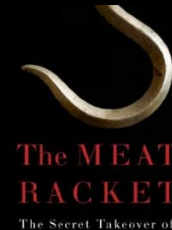
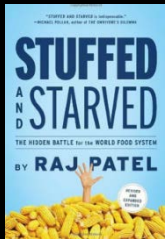


Source: OSU Food Demand Survey (FoodS)

**Consumers aren't dumb, they have
little incentive to learn more**

The Problem

Too much sugar, too much meat,
too much processed food, too
many pesticides; we're too fat,
spending too much on health care



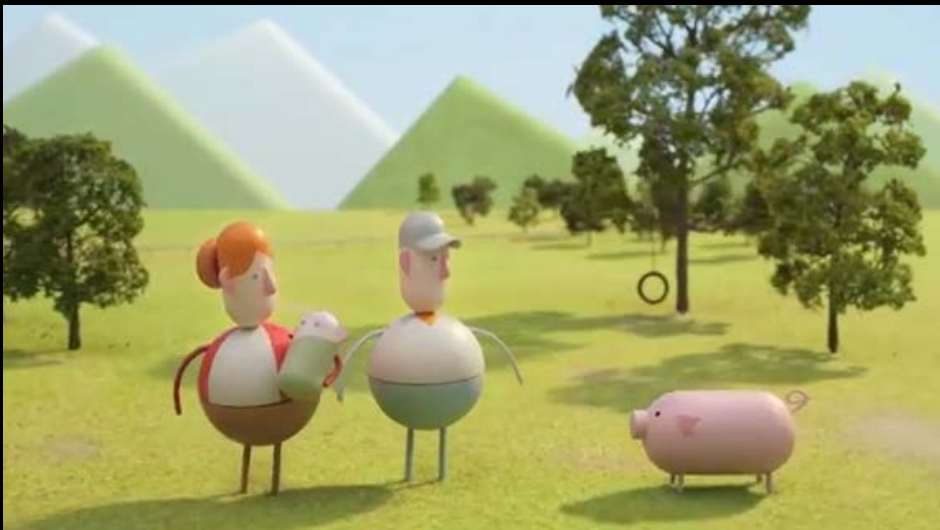
Agriculture
too much money
too subsidies

- “Hidden Battle”
- “Dark Side”
- “Took Over”
- “Hidden Toxins”
- “Secret Take Over”

The Solution

local, organic, slow, natural, unprocessed

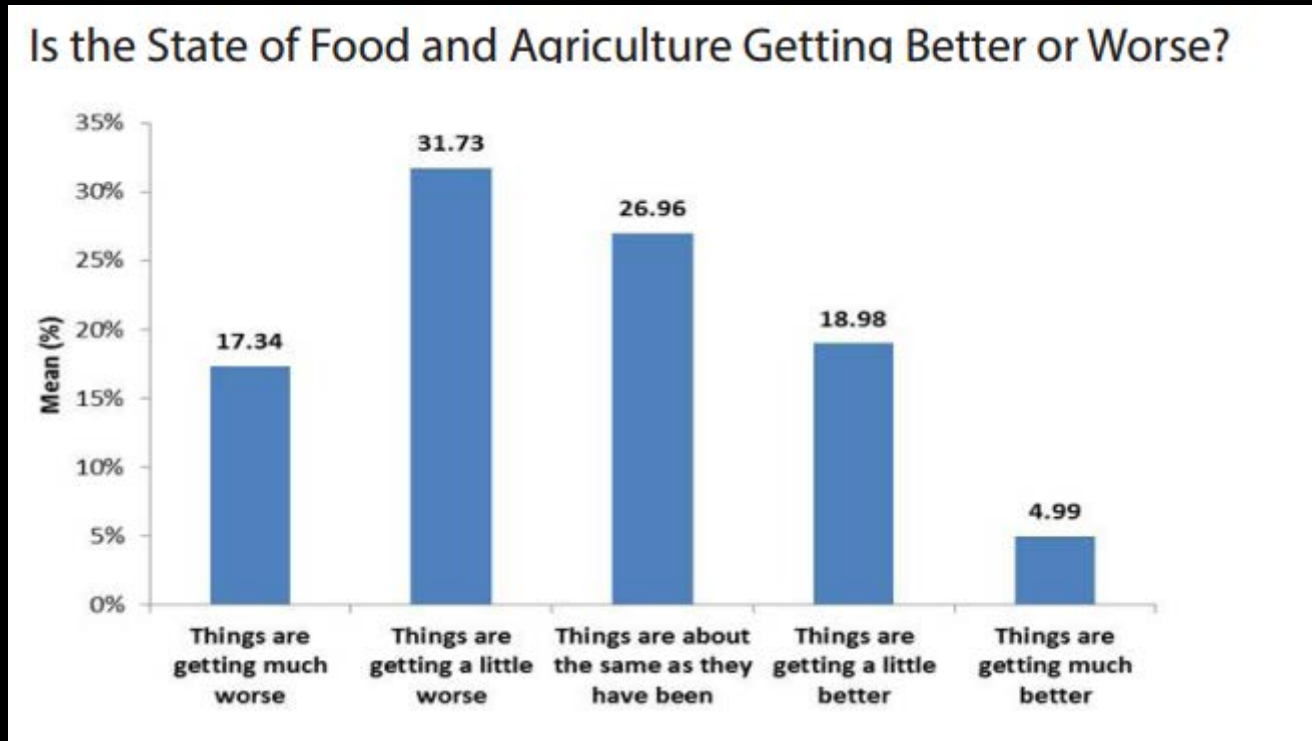
A return to nature



**Taxes, subsidies,
regulation, social
pressure**

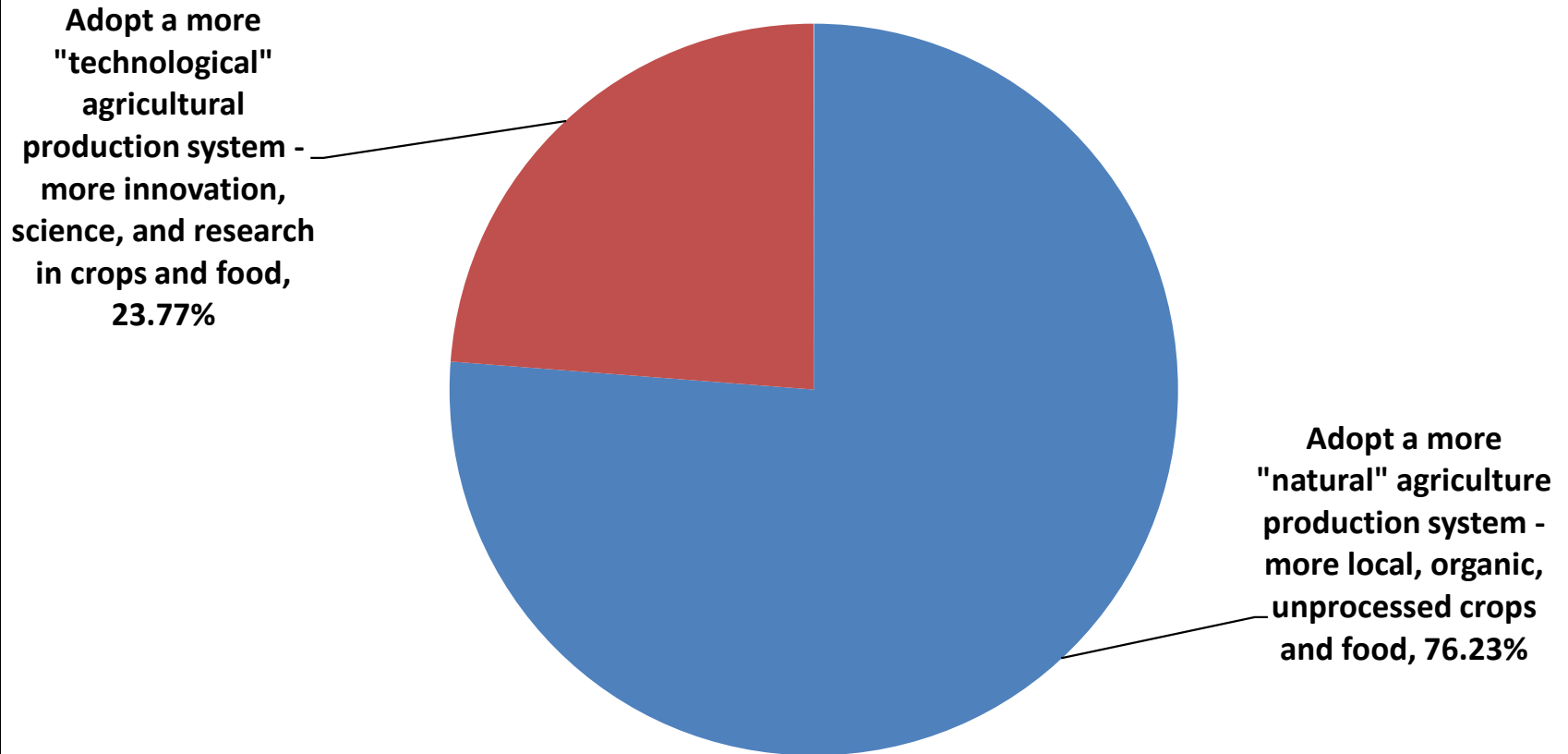


The Result



Source: OSU Food Demand Survey (FoodS)

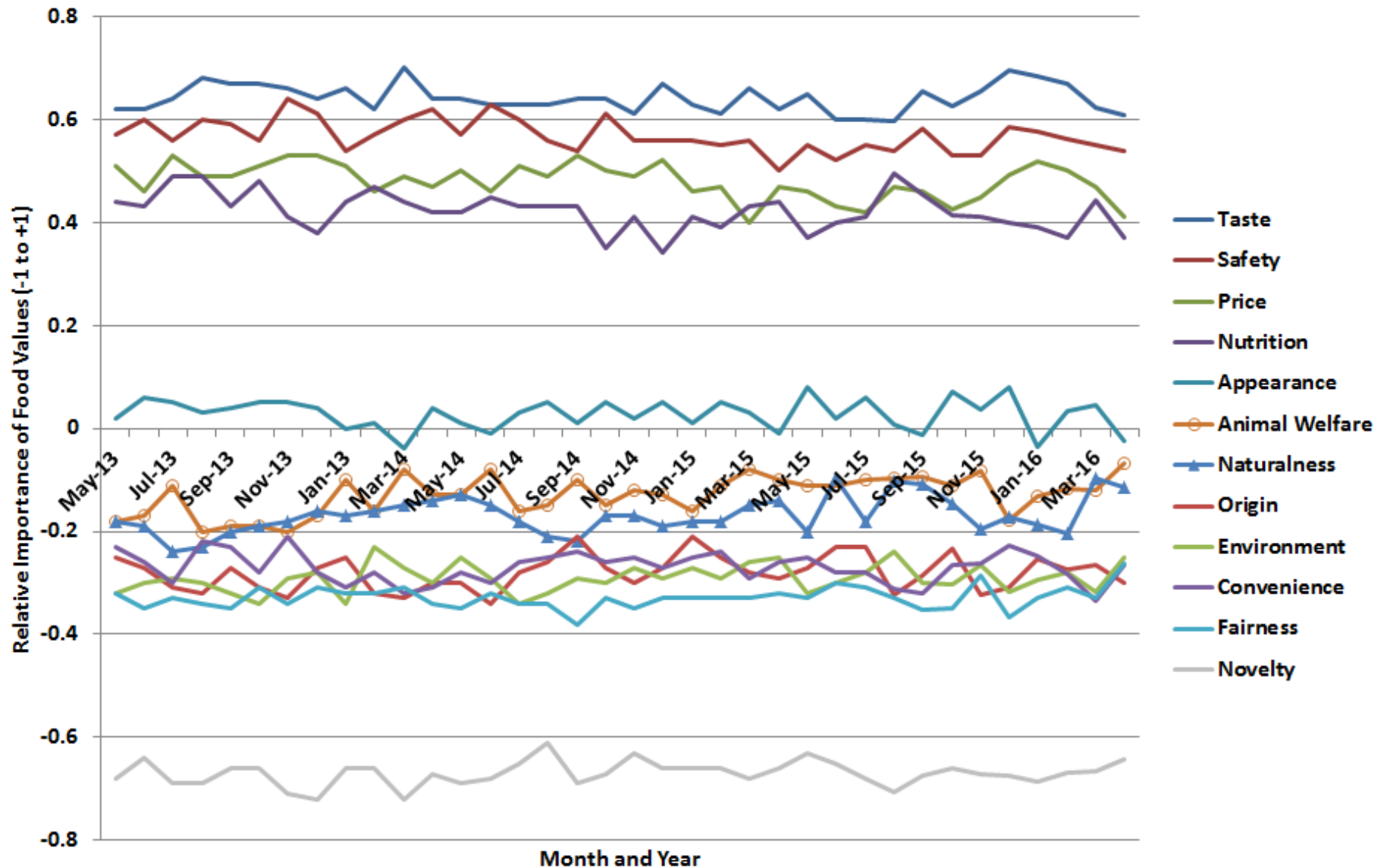
Which of the two following options do you believe would be most effective in addressing the challenges you thought were most concerning?



A race to the bottom?

- **Resources are used in competition to tell the best artisanal story**
- **Resources used in reformulation that provide few “objective” benefits**
- **Do these increase the size of the pie**
 - **More affordable? Healthier? More convenient? Safer? Better for the environment?**

Keep the Main Thing the Main Thing



**What kind of food future will we
offer to food consumers?**

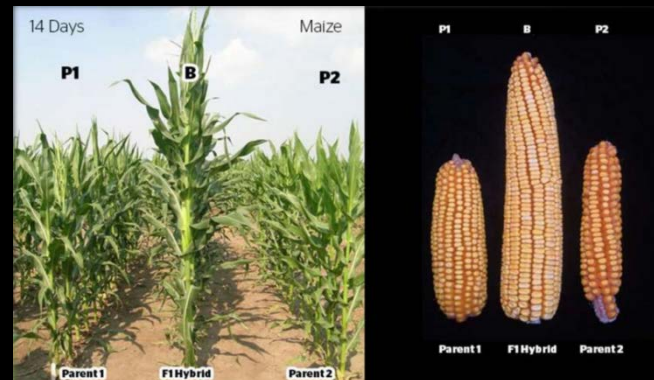
“There has been a nightmare bred in England . . . the dogma that men breed too fast for the powers of the soil; that men multiply in a geometric ratio, whilst corn multiplies only in an arithmetical; and hence that, the more prosperous we are, the faster we approach these frightful limits. . . . “Not so, Mr. Malthus, but just the opposite of so is the fact.” . . . It needs science and great numbers to cultivate the best lands, and in the best manner.”

—Ralph Waldo Emerson, 1858

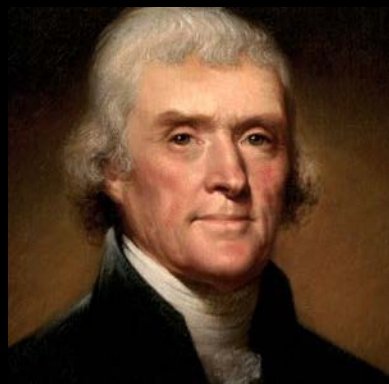




Eli Whitney



George Shull, Edward Murray East, et al.



Thomas Jefferson



John Deere



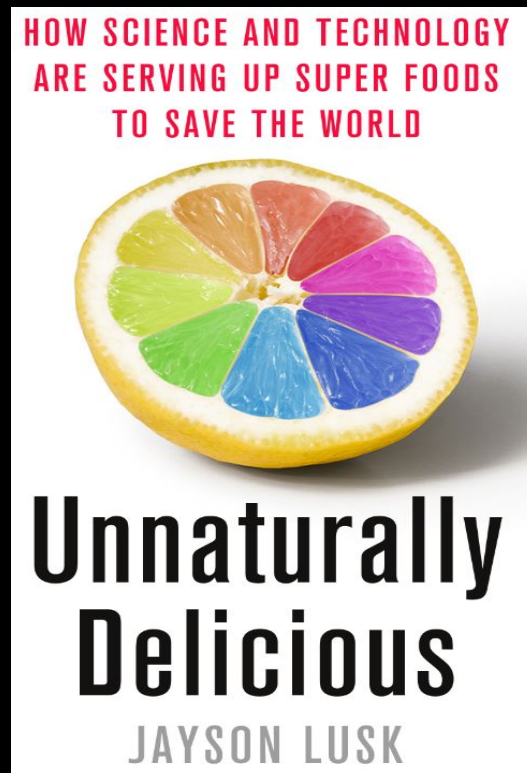
**George
Washington
Carver**



Percy Spencer

My take

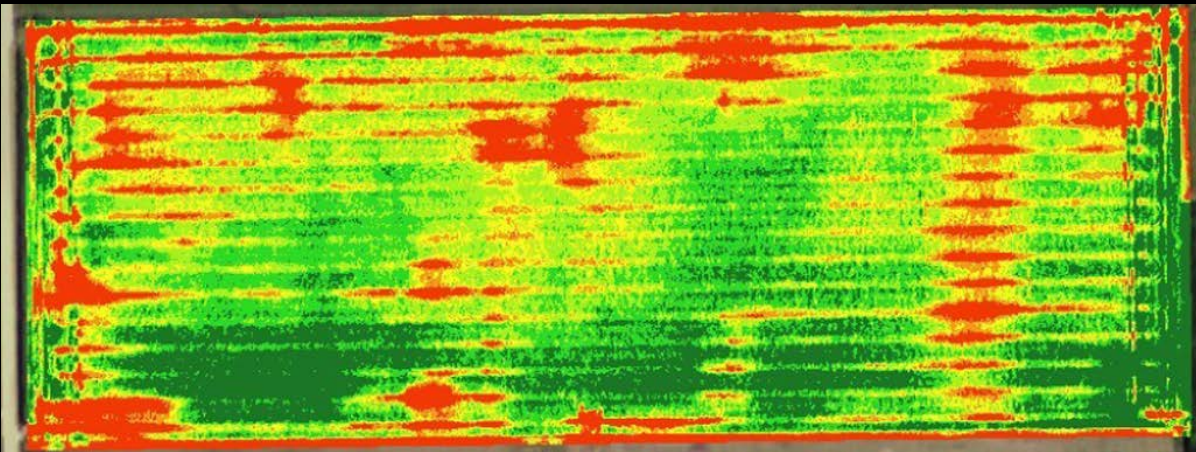
- **Need an optimistic, forward looking vision for the future of food**



Innovation, Entrepreneurship

 **SST Software**
Manage Data. Harvest Information.

 **SST Software** | The Leader in Agriculture
Information Management



Innovation, Entrepreneurship



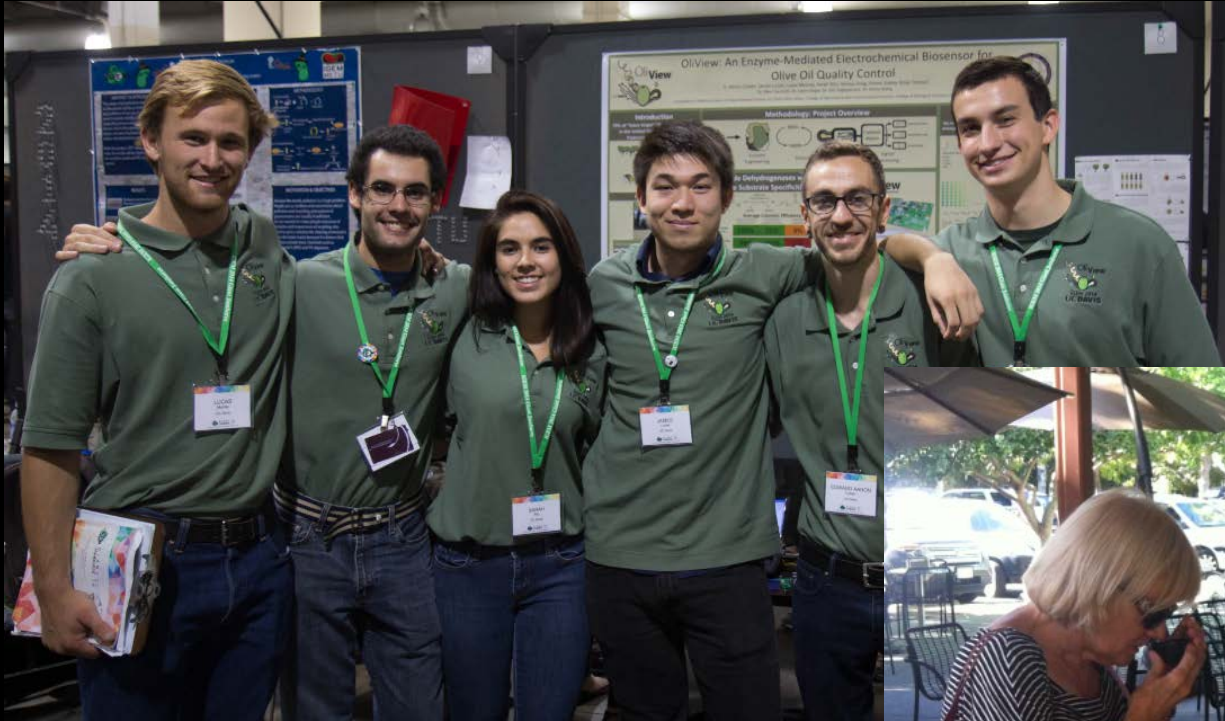
Innovation, Entrepreneurship



Innovation, Entrepreneurship



Innovation, Entrepreneurship



Innovation, Entrepreneurship

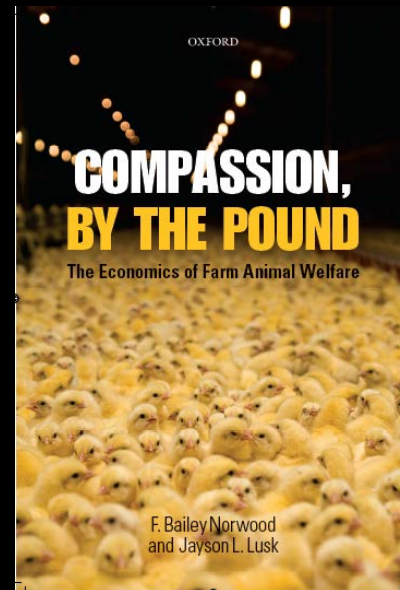
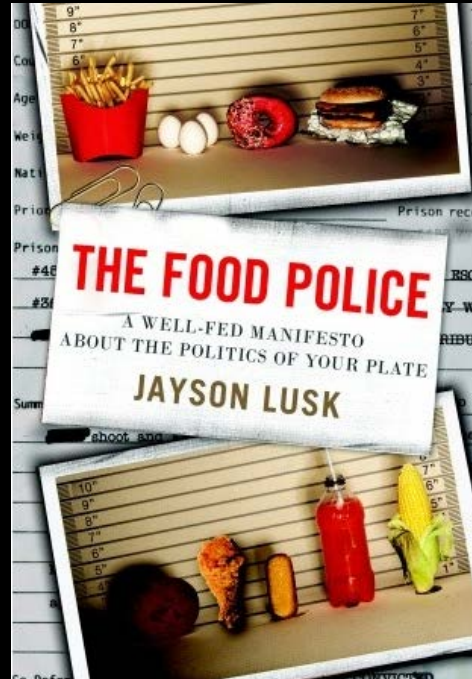


HOW SCIENCE AND TECHNOLOGY
ARE SERVING UP SUPER FOODS
TO SAVE THE WORLD



Unnaturally Delicious

JAYSON LUSK



≡ The Oxford Handbook of
**THE ECONOMICS OF
FOOD CONSUMPTION
AND POLICY**

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