PATH TO THE PLATE

TEXAS A&M AGRILIFE EXTENSION

Agriculture and Health: An Opportunity for Impact

The Time is Right!

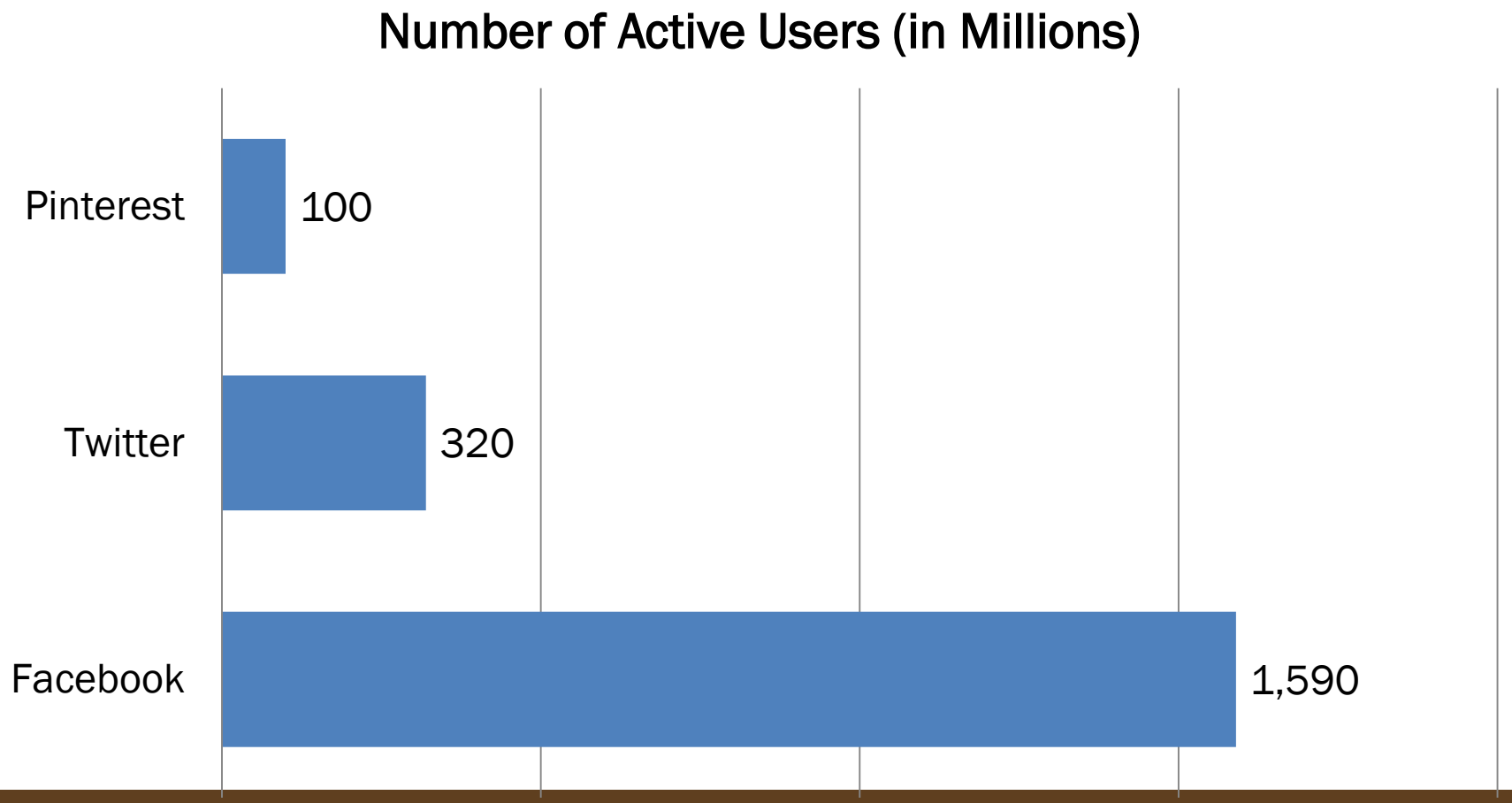
- The agriculture, nutrition, and health sectors all seek to improve human well being

- If we work together, we can unleash a tremendous power!

Challenges

- 40% of food in the U.S. is wasted
- In Texas, 1.7 million Texas households were considered food insecure
- We are experiencing a healthcare crisis
- Many sources of misinformation about nutrition and lifestyle choices have emerged
- Often, agriculture is portrayed negatively

The Internet Connection



The Internet Connection

- Clear majorities of Twitter (63%) and Facebook users (63%) now say each platform serves as a source for news about events and issues outside the realm of friends and family. That share has increased substantially from 2013, when about half of users (52% of Twitter users, 47% of Facebook users) said they got news from the social platforms.

- 61% of American adults looked online for health information

- Eight in ten U.S. adults who have sought health information online say they began their last inquiry at a general search engine like Google, Bing, or Yahoo.

  — Pew Research Center

- Digital misinformation has become so pervasive in online social media that it has been listed by the World Economic Forum as one of the main threats to human society.

What are the different Production Systems and How do they Differ?

- Organic vs. Conventional
  - Sustainable
  - Small
  - Family Farm
  - Local
  - Farm to Table
  - Large Scale

How do the different Production Systems differ?

- Organic
  - Limits use of synthetic pesticides and fertilizers
  - If certified organic, products produced under a verifiable set of standards
  - Differentiated throughout the production, processing and marketing chain

How do the different Production Systems differ?

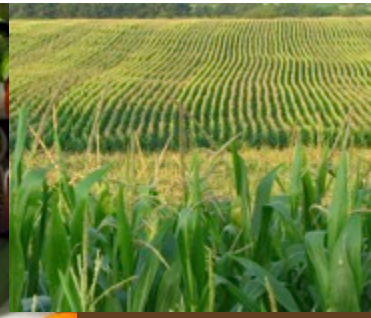
- Organic
  - In the case of livestock there are guidelines for animal care and require access to pasture and % of diet from grazing.
  - Livestock operations in the US are normally small operations that market more locally.
  - Large scale organic production occurs out of country

How do the different Production Systems differ?

- Conventional
  - Can utilize crops that were developed with technologies allowing them to withstand application of herbicides and eliminate the need for use of plant applied pesticides.

Fact or Fiction?

Organic food production produces food that is higher in nutritional value.



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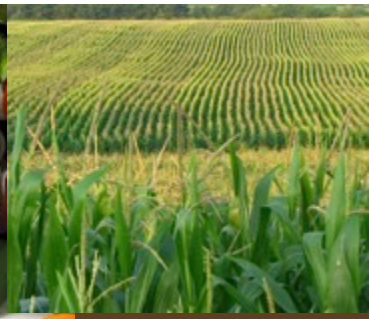
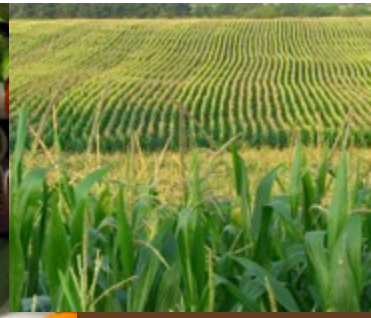
Fact or Fiction?

- Fruits are consistently higher in Vitamin C and that is it..
- Meat is higher in CLA and Omega 3 but not because its organic but because it is raised entirely on grass or forages.



Fact or Fiction?

Organic food production does not use pesticides so it is safer than conventional food production.



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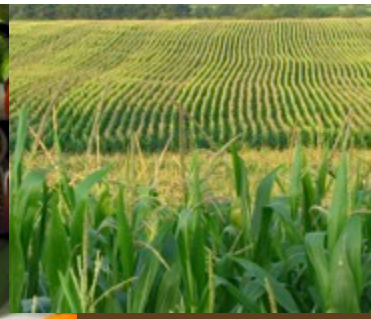
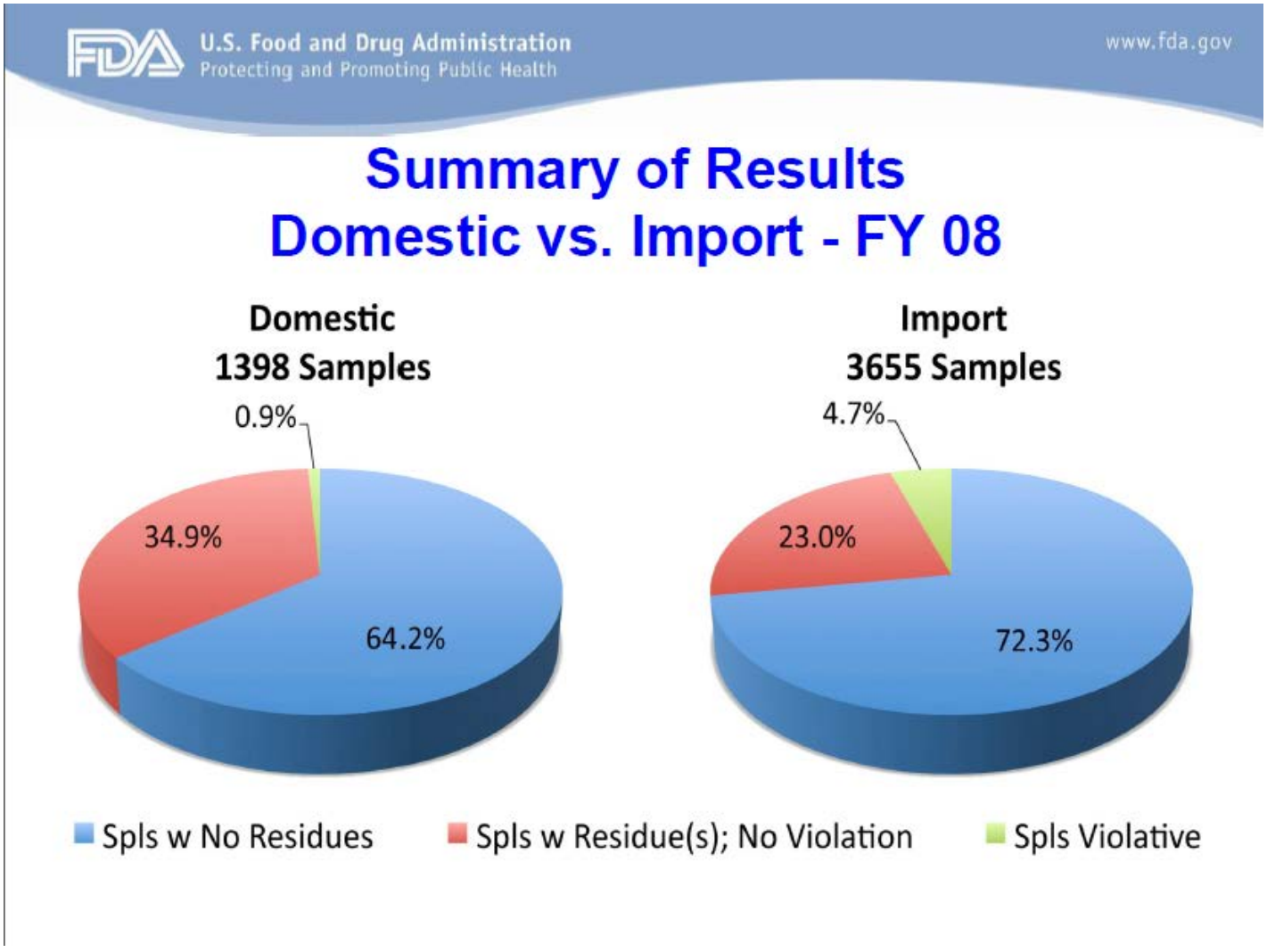
Fact or Fiction?

- There are a higher proportion of food related illnesses from organic produce from the use of natural fertilizers or contamination by wildlife.



USDA and FDA routinely inspect foods to insure there are no pesticide residues.

Conventional Produce



Fact or Fiction?

The meat I buy is filled with antibiotics.

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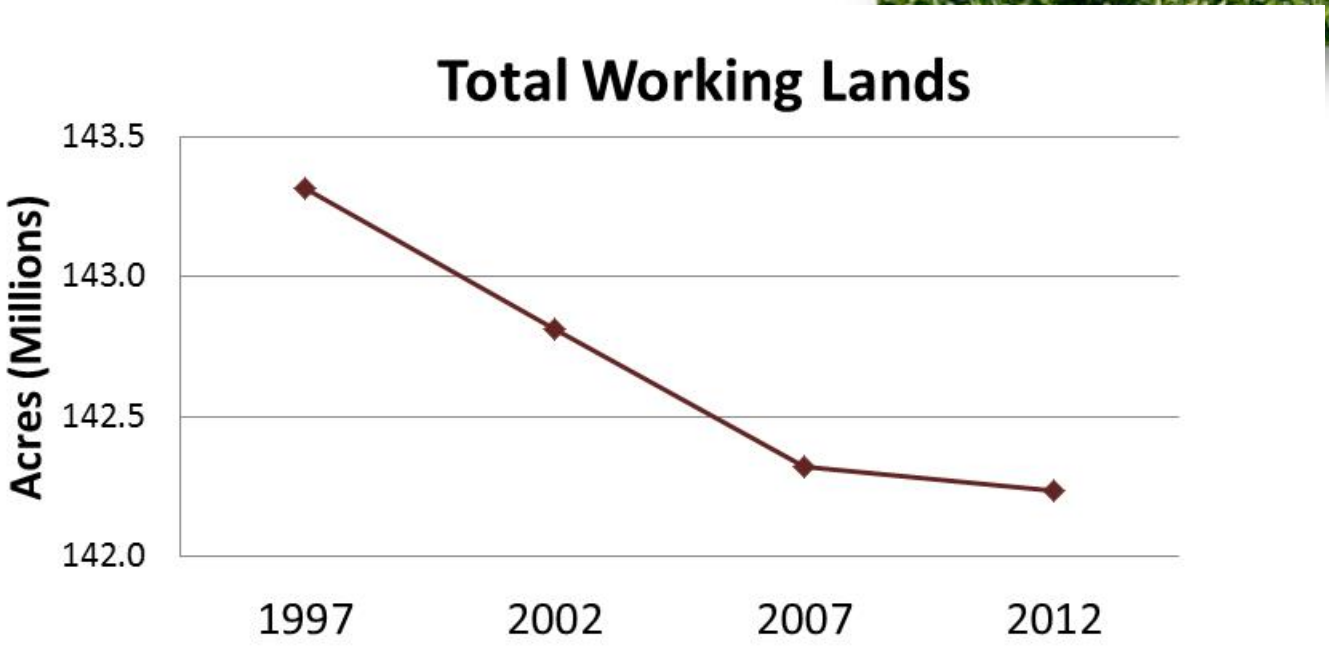
Laws, ethics, and regulations restrict the sale of meat containing antibiotics.

Fact or Fiction?

Farmers use more land now and do not take care of it.

Fewer acres are used than before

- 1997 – 143 Million acres
- 2012 – 142 Million acres
- Loss ~1 Million acres



Fact or Fiction?

Production of beef causes the destruction of natural resources

Fact or Fiction?

Production of beef is key to proper management of natural resources!

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Land Use - United States

Major Land Uses in the United States, 2002 (USDA)

Category	Acres, millions	Percent
Forest	651	28.8
Grass/Pasture	587	25.9
Crops	442	19.5
Parks/Wildlife Areas	297	13.1
Misc.	228	10.1
Urban	60	2.6

Grazing is an original (natural) fuel management tool.

Large ruminants have long been a part of this ecosystem

2.16 million does

3.13 million ewes

30.3 million beef cows

1/29/16 USDA NASS data

Use of grazing ruminants is the only means of producing high quality food off of over 50% of the land mass of the US

Fact or Fiction?

Finishing cattle in feedlots is detrimental to their welfare?

Fact or Fiction?

- Confinement leads to increased:
  - –Stress
  - –Disease
  - –Antibiotic Use

N
Texas Orthoimagery Program
© 2011 Google
Google
Imagery Date: 3/31/2008
1991
36°17'42.86" N 101°18'12.10" W elev 3074 ft
Eye alt 4365 ft

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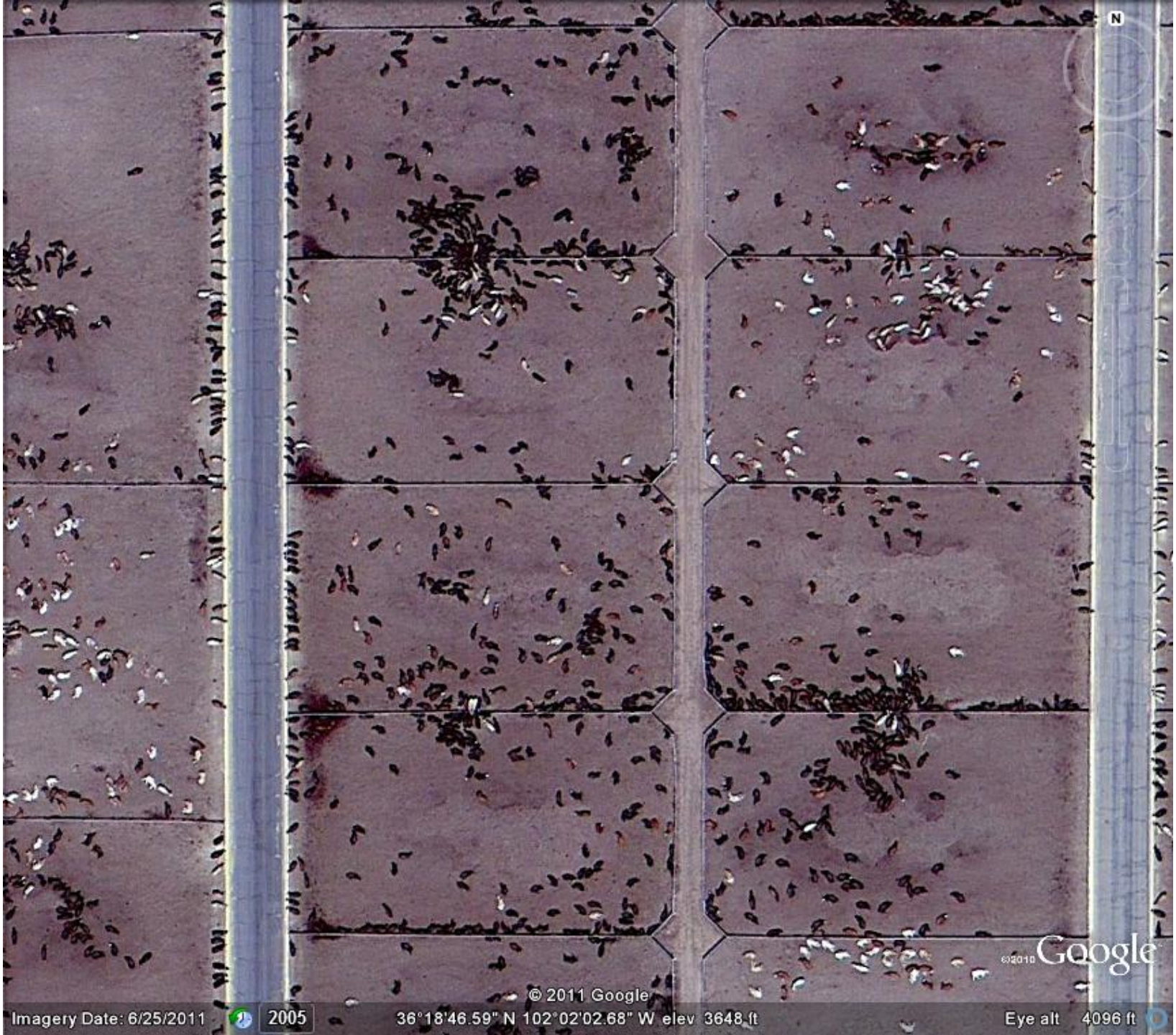
© 2011 Google
Texas Orthoimagery Program
Google
Imagery Date: 3/31/2008
33°47'54.89" N 102°28'11.92" W elev 3857 ft
Eye alt 4592 ft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©2010 Google
© 2011 Google
Imagery Date: 6/25/2011
2005
36°18'46.59" N 102°02'02.68" W elev 3648 ft
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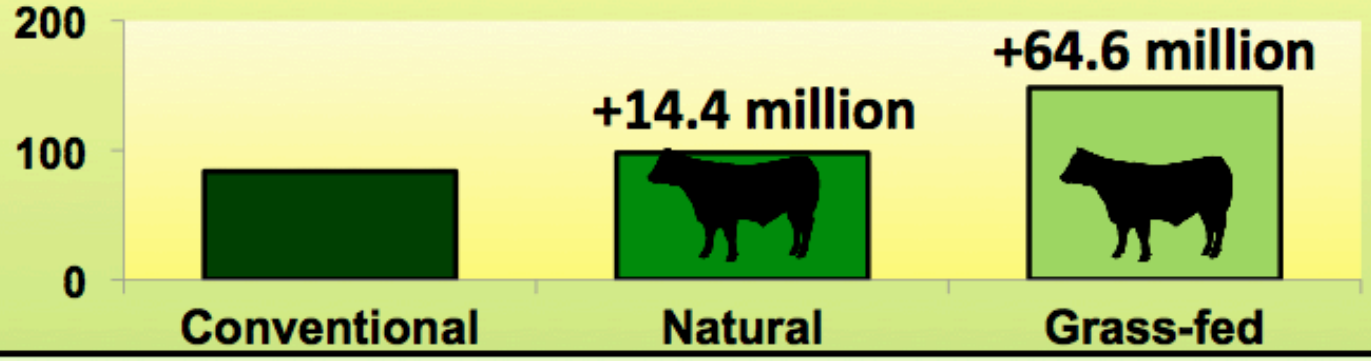
Removing Technology from Beef Production Increases Resource Use and GHG Emissions



If all U.S. beef was grass-fed, it would increase:

- **Land use by 131 million acres = 75% land area of Texas**
- **GHG emissions by 134.5 million t CO_2-eq**
  - **Equal to annual emissions from 26.6 million U.S. cars**
- **Water use by 468 billion gallons**
  - **Equal to annual usage by 53.1 million U.S. households**

Source: Adapted from Capper , J. L. (2010). The Environmental Impact of Conventional, Natural and Grass-fed Beef Production Systems. Greenhouse Gases and Animal Agriculture Conference, Banff, Canada

Fact or Fiction?

Genetically Modified Organisms (GMOs) are unsafe to people, our food supply, and the environment.

The United States has the tightest regulations on safe crop production than any other country which insures the safety of GMOs and other technologies.

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Compound	Oral LD_{50} (mg/kg)	Dermal LD_{50} (mg/kg)
Aflatoxin B1	0.48	-
Caffeine	192	-
Acetylsalicyclic acid (Aspirin)	200	-
Triclopyr	713	>2000 (rabbit)
2,4-D dimethylamine salt	>1000	1122 (male rabbit)
Sodium chloride (Table Salt)	3000	>10,000 (rabbit)
Atrazine	3090	>3100 (rabbit)
Sodium bicarbonate (Baking Soda)	4220	-
Picloram TIPA salt	>5000	>2000 (rabbit)
Aminopyralid	>5000	>5000
Roundup (glyphosate)	>5000	>5000

Fact or Fiction?

The United States has the safest, most stable food supply in the world.

The United States has the safest, most stable food supply in the world!!!

Let's start talking about it!

Opportunities

- One of every 7 working Texans (14 percent) is in an agriculture related job.[1]
- In Texas, there are 242,000 farm operations which operate over 130,000,000 acres.
- 98.6 percent of Texas farms and ranches are family farms, partnerships or family-held corporations. [1]

Opportunities

Agriculture is about:

- saving lives,
- creating jobs,
- improving incomes,
- feeding hungry people,
- making a nation secure,
- preserving the planet,
- and preserving a value system.

Opportunities
Healthy South Texas

- A novel effort to reduce preventable diseases and their consequences throughout the region.
- The pilot program of the Healthy Texas Initiative, Healthy South Texas, promotes preventative health at the most local level of the community.

AgriLife Extension Initiative

Path to the Plate is....

Informative

- Path to the Plate is working to provide Texans information and perspectives so they may make better informed decisions about the food they eat.

Factual

- Path to the Plate relies on science and study when presenting details about agriculture practices and their relation to our health.

Unbiased

- The goal of the Path to the Plate program is for all Texans to make informed decisions based on truthful, relevant and accurate information.

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Everyone has a Role to Play

- Producers
- Commodity Groups
- Community Agencies
- Universities
- Consumer

Summary Points

- The United States has the safest and most stable food supply in the world
- Education for consumers is needed to build confidence in the process of how and where food is produced and the impact of those production systems on food safety and quality
- Path to the Plate aims to educate and inform consumers on the connection between their health and agricultural production

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Thank you

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