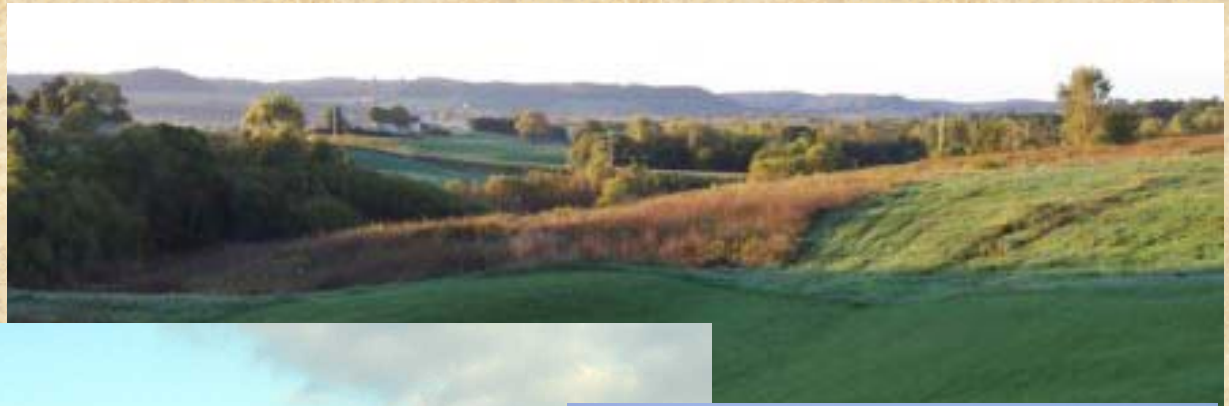


20  years

Institute
for
Agriculture
and
Trade Policy

*Environment
and
Agriculture
Program*



**Biofuels – Potential
Environmental and Social
Externalities**

Biofuels are not inherently beneficial or destructive – it depends on policy

- Can we craft effective policy in the U.S.?
- Can we craft effective global policies?
- What role can/should NGOs play?



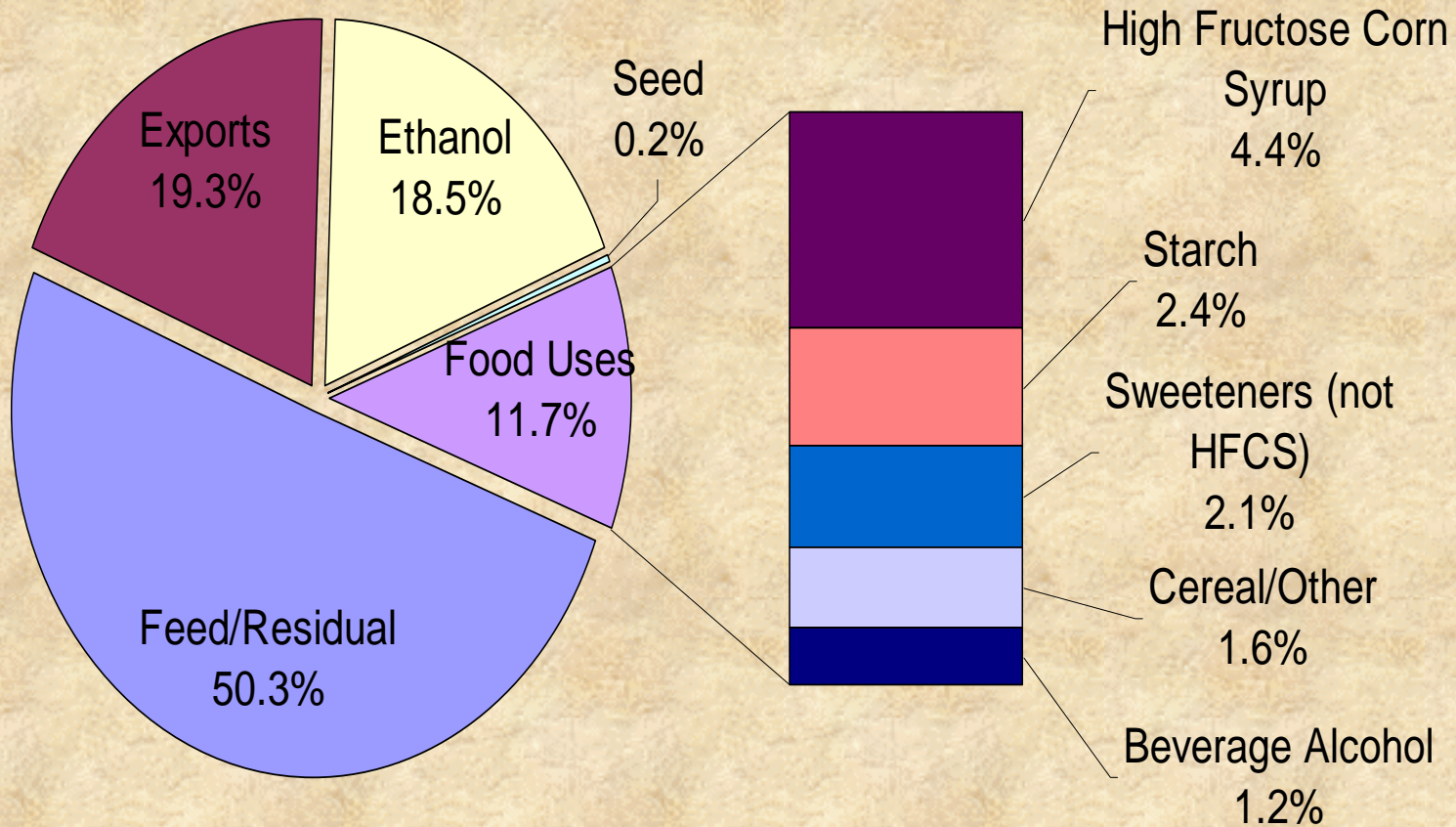
Biofuel Concerns



- Impact on Domestic Market
- Exports to Undernourished Populations
- Impact on Global Prices
- Long-term Midwest Productive Capacity



U.S. Corn Use, 2006



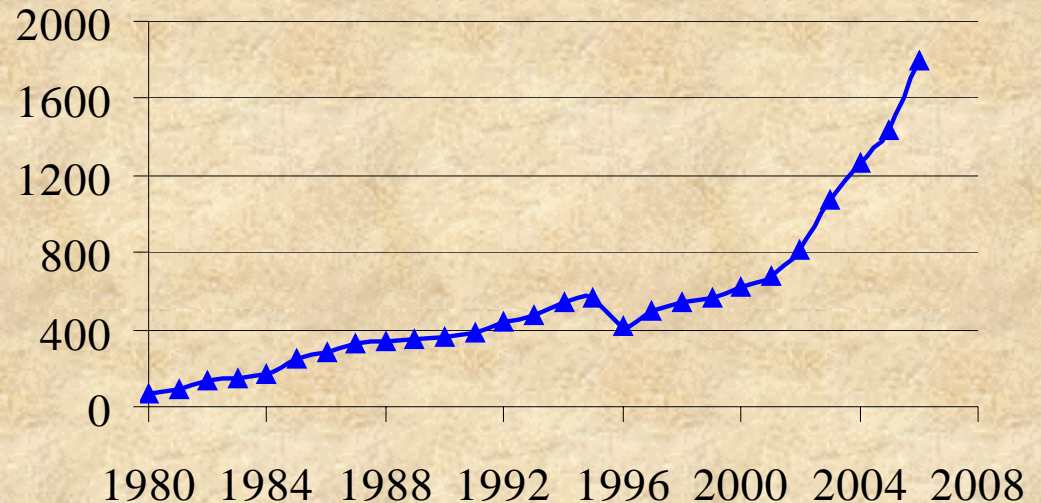
The Impact on Food Prices



“A doubling of feed grain and oilseed prices would increase average food prices by less than four percent.”

Bruce Babcock,
Iowa State

Millions of Bushels of
Ethanol Production



Source: Data from Renewable Fuels Association.

Each bushel of corn produces



- 2.8 gallons of ethanol
- 17 pounds of CO₂
- 16 pounds of high-protein distillers grains

What does high-priced corn and lots of DDGS mean for the Midwest?



- Will it drive out hog and poultry production and increase cattle production?
- Create incentives for confinement facilities next to ethanol plants?

More Grass?

OR

More Feedlots?



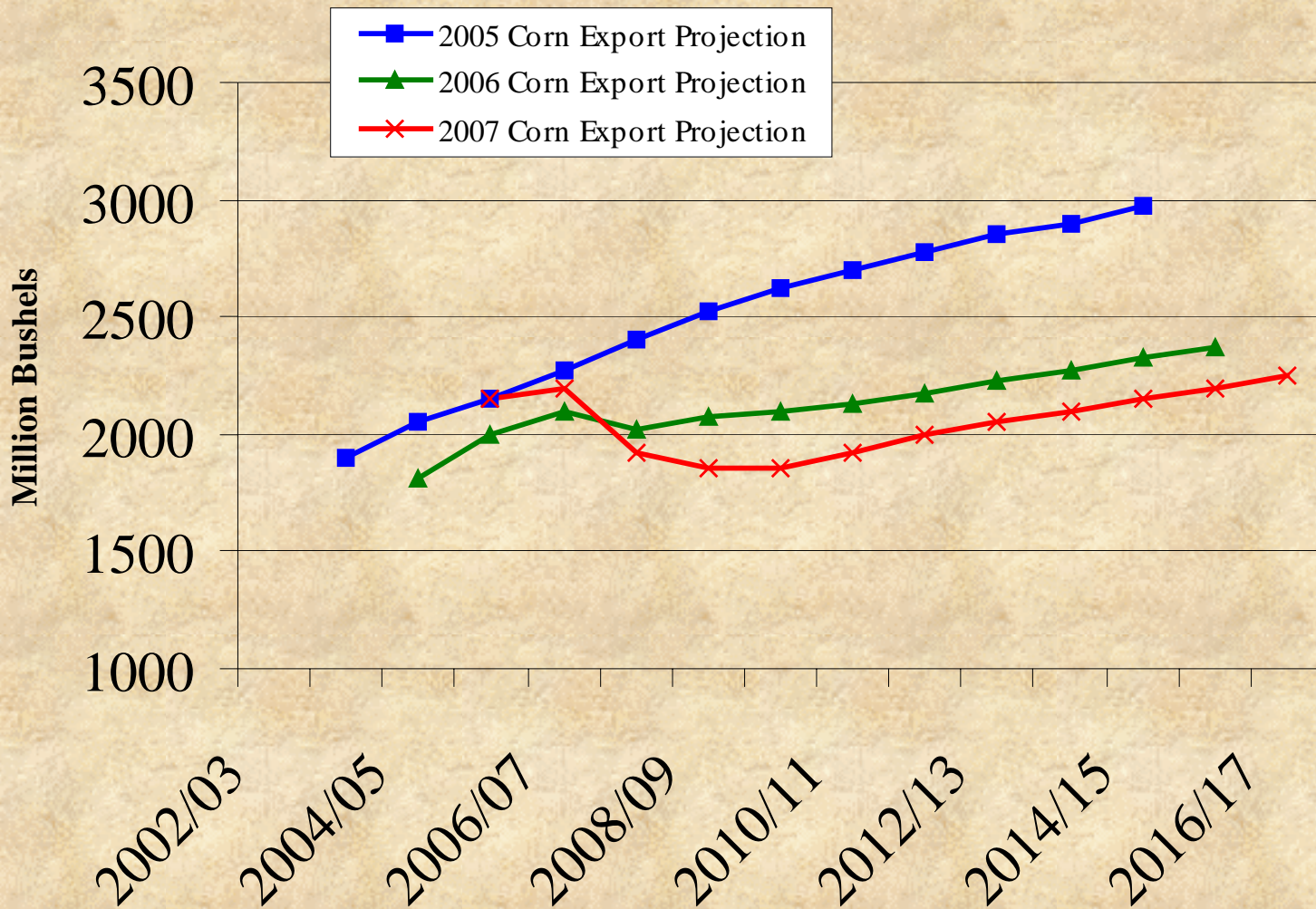
Food vs. Fuel Concerns



- Impact on Domestic Market
- Exports to Undernourished Populations
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The Impact on Food Prices

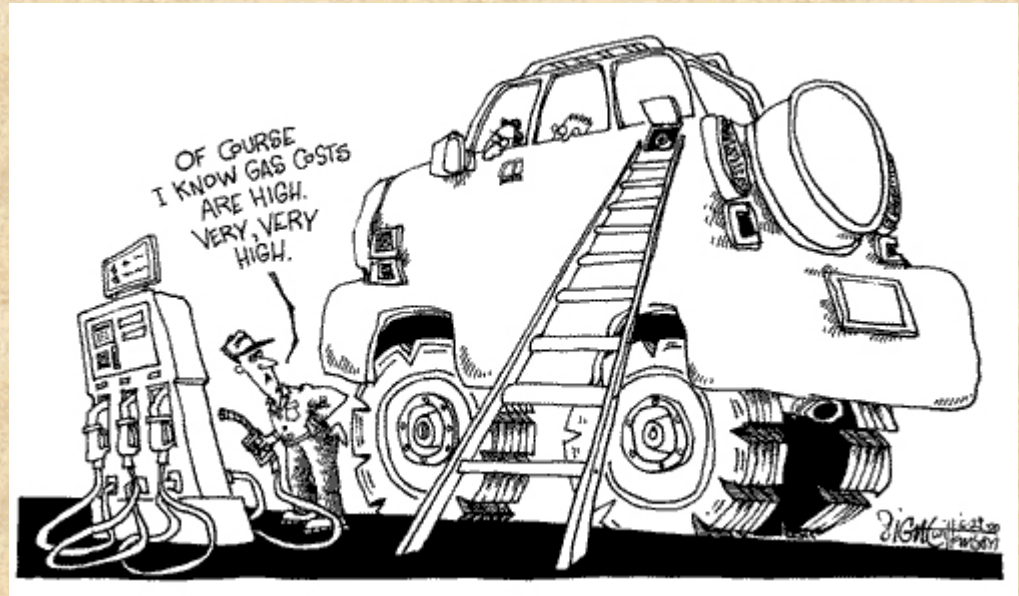


Source: Data from USDA Agricultural Baselines 2004, 2005, 2006, 2007.

Foreign Affairs, May/June 2007

“Filling the 25-gallon tank of an SUV with pure ethanol requires over 450 pounds of corn -- which contains enough calories to feed one person for a year.”

C. Ford Runge and
Benjamin Senauer,
University of Minnesota



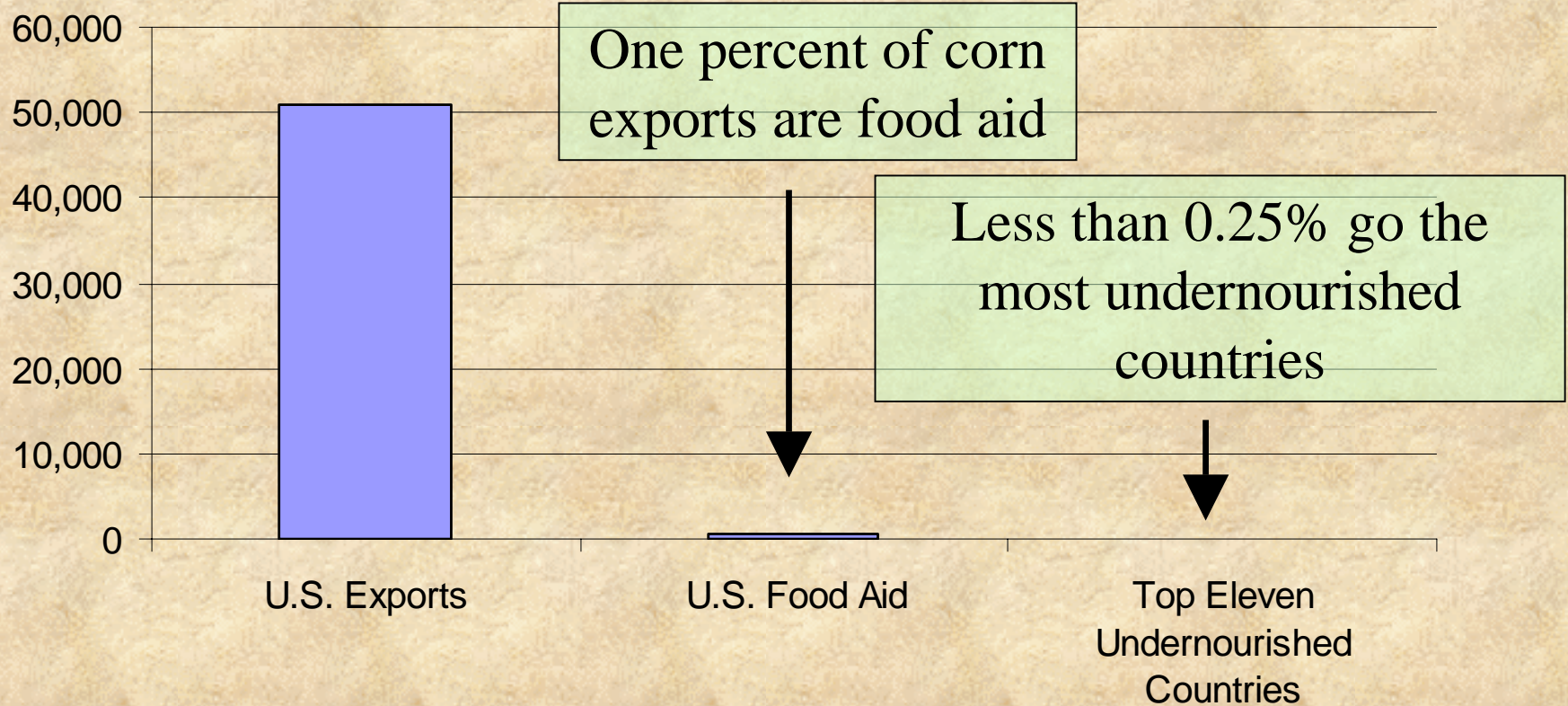
Corn Exports to the World's 10 Most Undernourished Countries



U.S. Food Aid Corn and Corn Products



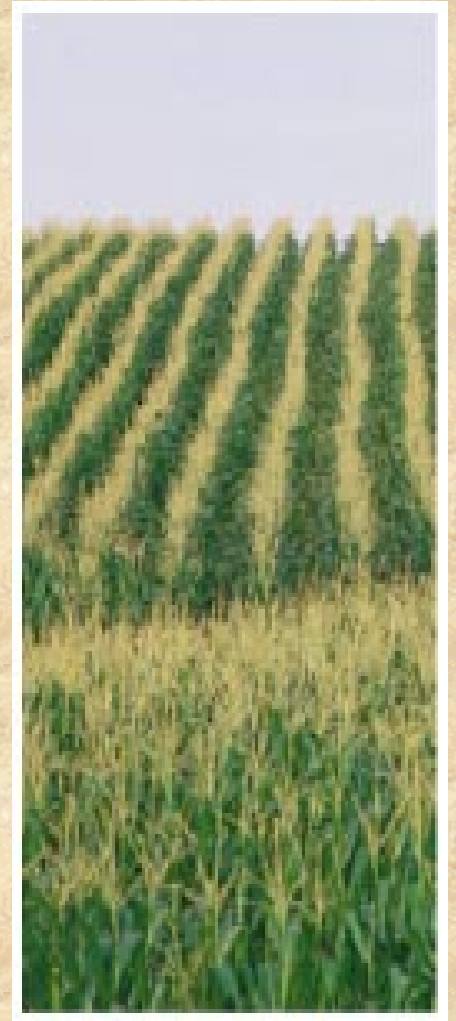
Millions of bushels per year



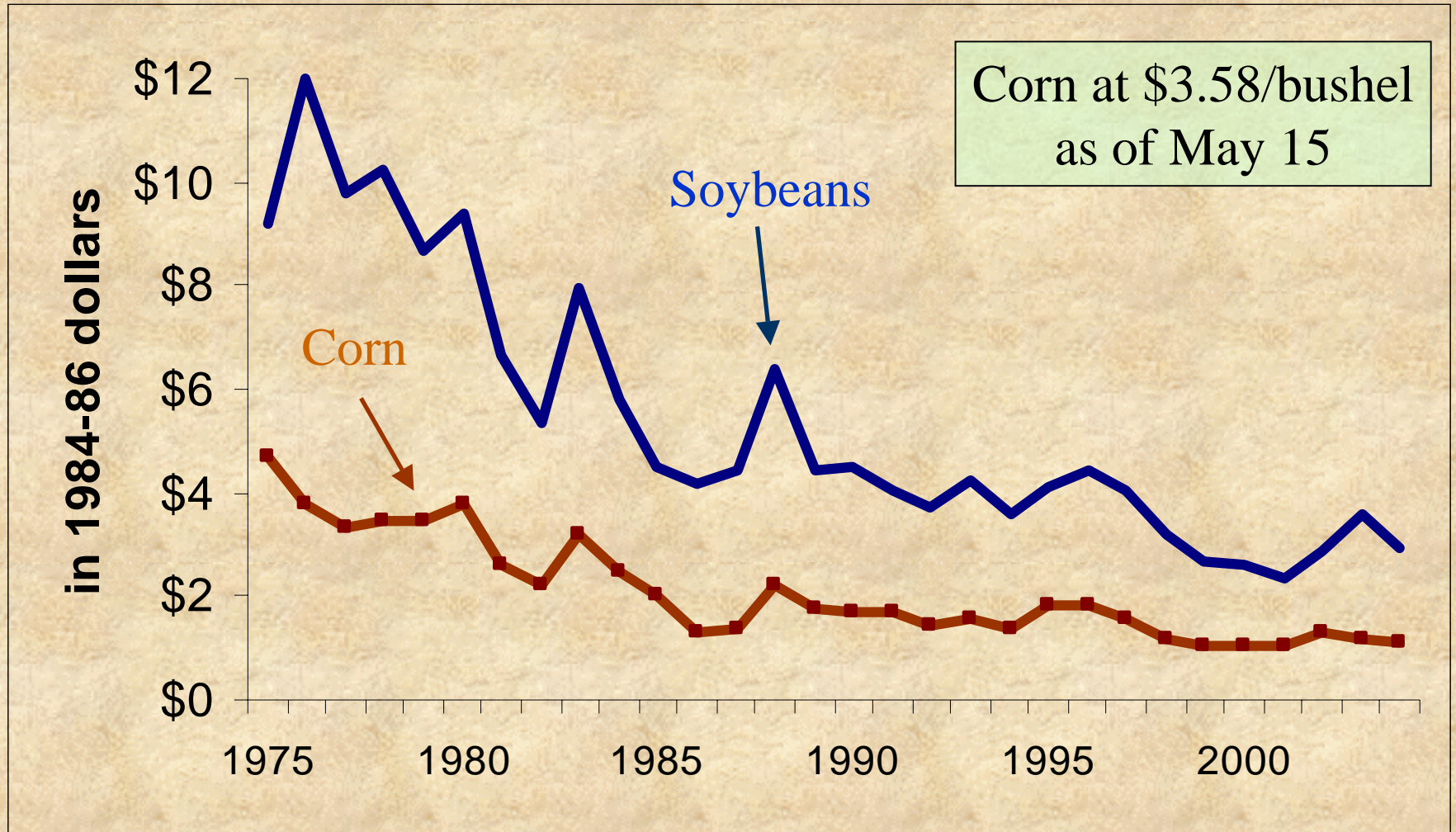
Food vs. Fuel Concerns



- Impact on Domestic Market
- Exports to Undernourished Populations
- **Impact on Global Prices**
- Long-term Midwest Productive Capacity



The U.S. also Exports Price



How Does Cheap Corn Impact Food Availability Around the World?

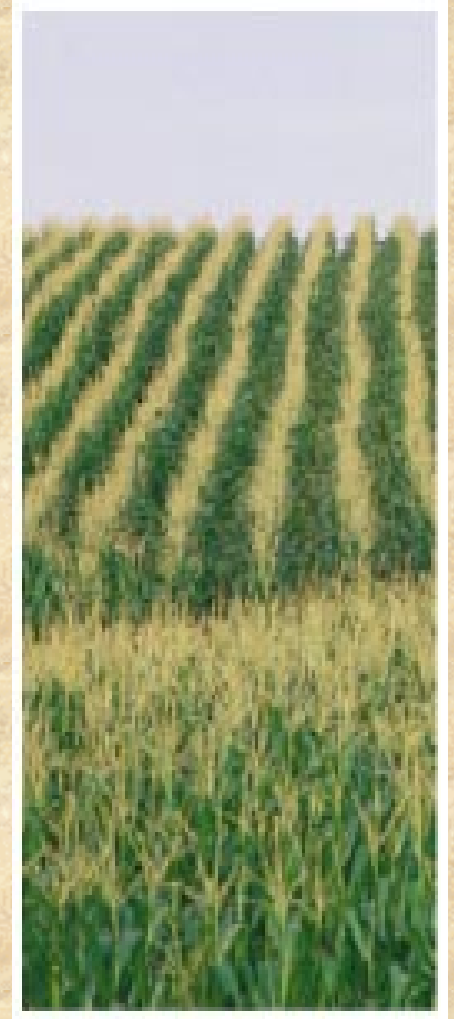


- In Mexico - loss of Campesino income, consolidation of tortilla industry, urban migration
- In East Asia – growth of livestock industry, more meat consumption
- There will be winners and losers, but the low prices of the past decade are not sustainable

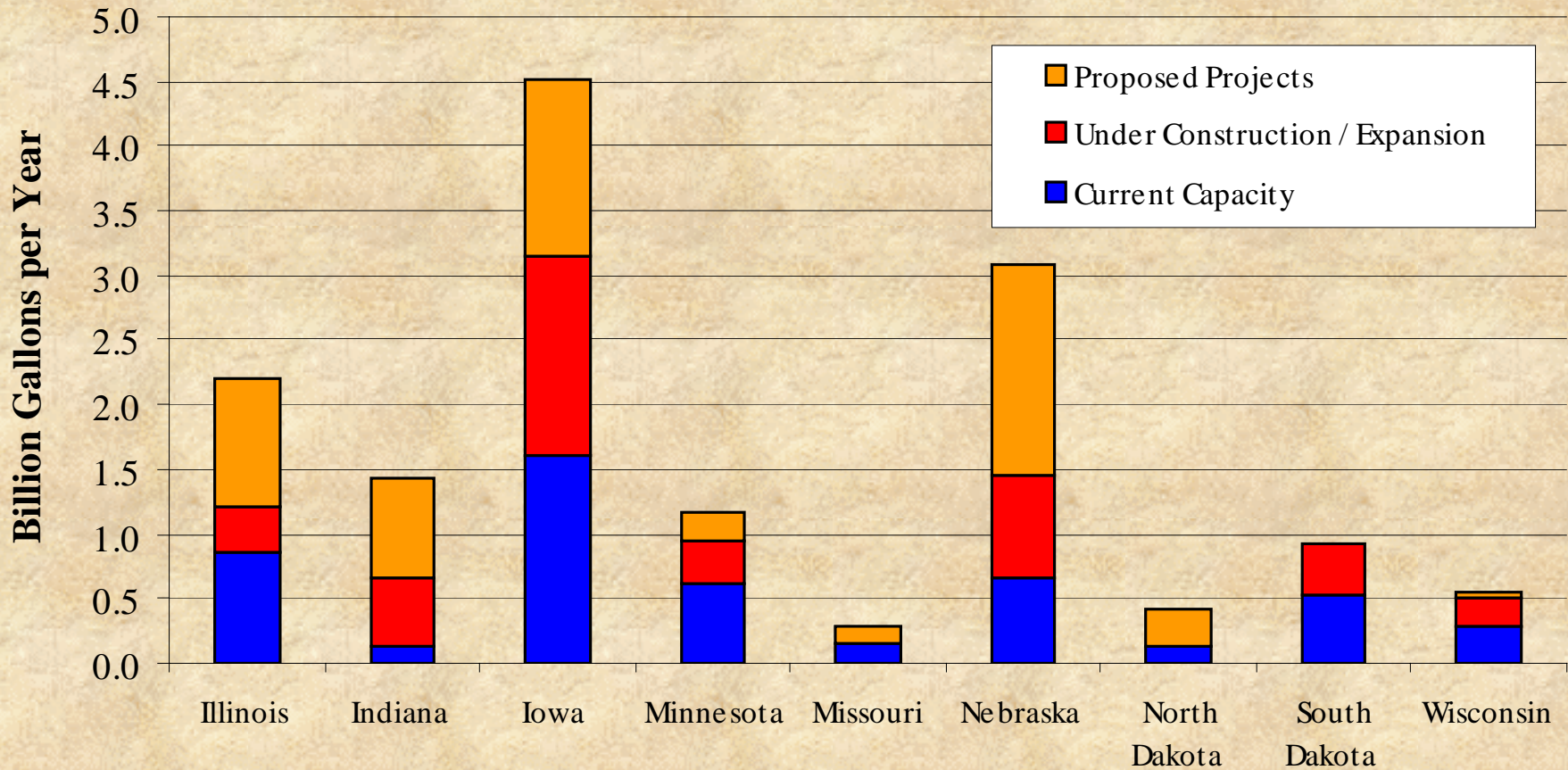
Food vs. Fuel Concerns



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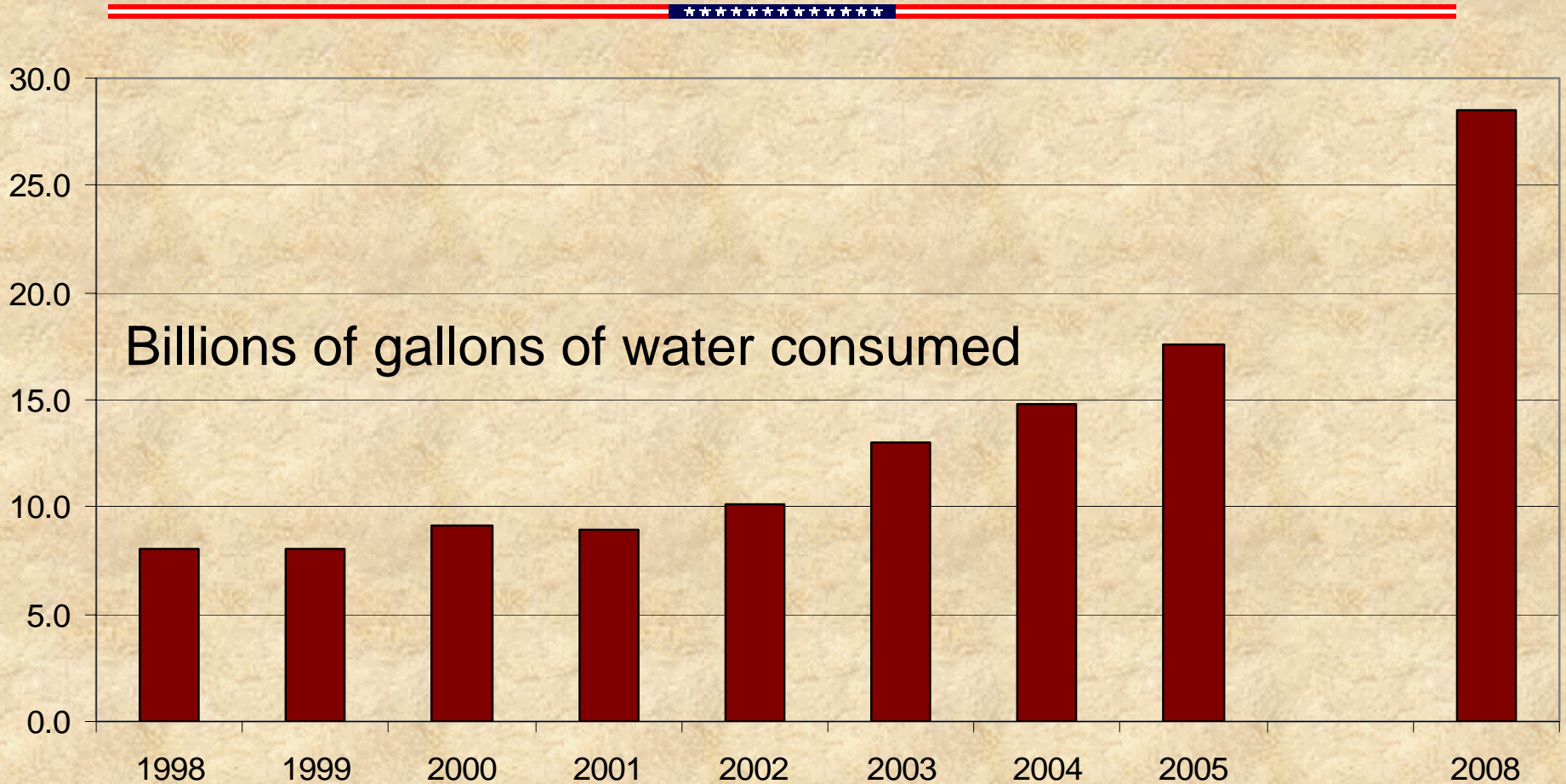


Growth of Midwest Ethanol



Source: IATP data, from Renewable Fuels Association, Ethanol Producer Magazine and various news sources.

Estimated Volume of Water Used in Ethanol Production



Source: IATP ethanol and water report

The Challenges of Biomass

Cheap corn inhibits the transition. The rise in corn prices provides an opportunity for alternative feedstocks.



- Which comes first – the biomass or the processing?
- The infrastructure gap
- Wall Street or Main Street?

A Sustainable Landscape



- Its hard to imagine how to get there without using this new industry to drive change
- Policy should be driving biofuels beyond corn
- Minnesota ethanol legislation can set an example for achieving public goals



The Institute for Agriculture and Trade Policy



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