

# Connections 2010

## United Soybean Board

Key Topic Session – Meal

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# Meal

Top Areas of Interest from the Soybean Industry Scan

- **Value added Meal**
- **Quality of U.S. Soybean meal**
- Human Consumption
- Replacement of Nonrenewable Resources
- **Possible Reduction in Animal Ag Production**

# Meal has Value

- Not just a by-product of oil extraction
- Of the components of soybean, meal has the greatest value
  - Approximately 4 X more pounds of meal produced per bushel of soybeans than oil
- U.S. Meal Production and Value for 2009\*
  - 39.1 Million Short Tons
    - At an average price of \$331/ton = \$12.9 Billion
- Primary usage is as a source of supplemental protein/amino acids in animal feeds

\* Soy Stats 2010

# Meal has Value

- Animal Nutrition Working Group (ANWG)

## Mission Statement

*To provide guidance to USB efforts focused on adding value to meal produced using U.S. soybeans*

# Value added Meal

Soybean meal value is dependent upon:

- Its nutrient composition
- Specific needs of animals for nutrients provided by soybean meal
- Availability and cost of other ingredients which supply the same nutrients provided by soybean meal

# Modify Nutrient Composition

- *Objective: Increase nutritional value in poultry, swine and aquaculture applications*
- Increase metabolizable energy (ME)
  - Reduce oligosaccharides
  - Reduce or alter other carbohydrates
- Increase levels of amino acids
  - In formulating non-ruminant animal diets
    - There is no value in crude protein content
    - Value is in the level of specific, essential amino acids

# Modify Nutrient Composition

- Reduce phytate bound Phosphorus
  - Some but declining value due to increasing usage of phytase
- Reduce anti-nutritional components
  - Less toasting required
    - Energy savings
    - Increase amino acid availabilities

# Quality of U.S. Soybean Meal

- Measurable composition
  - Requires rapid analysis tools that are trustworthy
- Consistency in composition
  - Reduced variation: Variation represents **risk** which is a factor in determining pricing thresholds
- Establishing market value based on composition
  - Change grading standards to include additional end-user relevant characteristics such as amino acids
- Compete with substitute feedstuffs
  - DDGS
  - Synthetic amino acids

*Outcome – Differential and verifiable  
advantage of U.S. soy meal*

# Possible Reduction in Animal Ag Production

- Domestic animal production will continue to grow for next 3-5 years
- Aquaculture is a growing segment of animal production
  - Relatively small compared to traditional animal segments
  - Rate of growth about 8-10% /yr worldwide but stagnant in the US

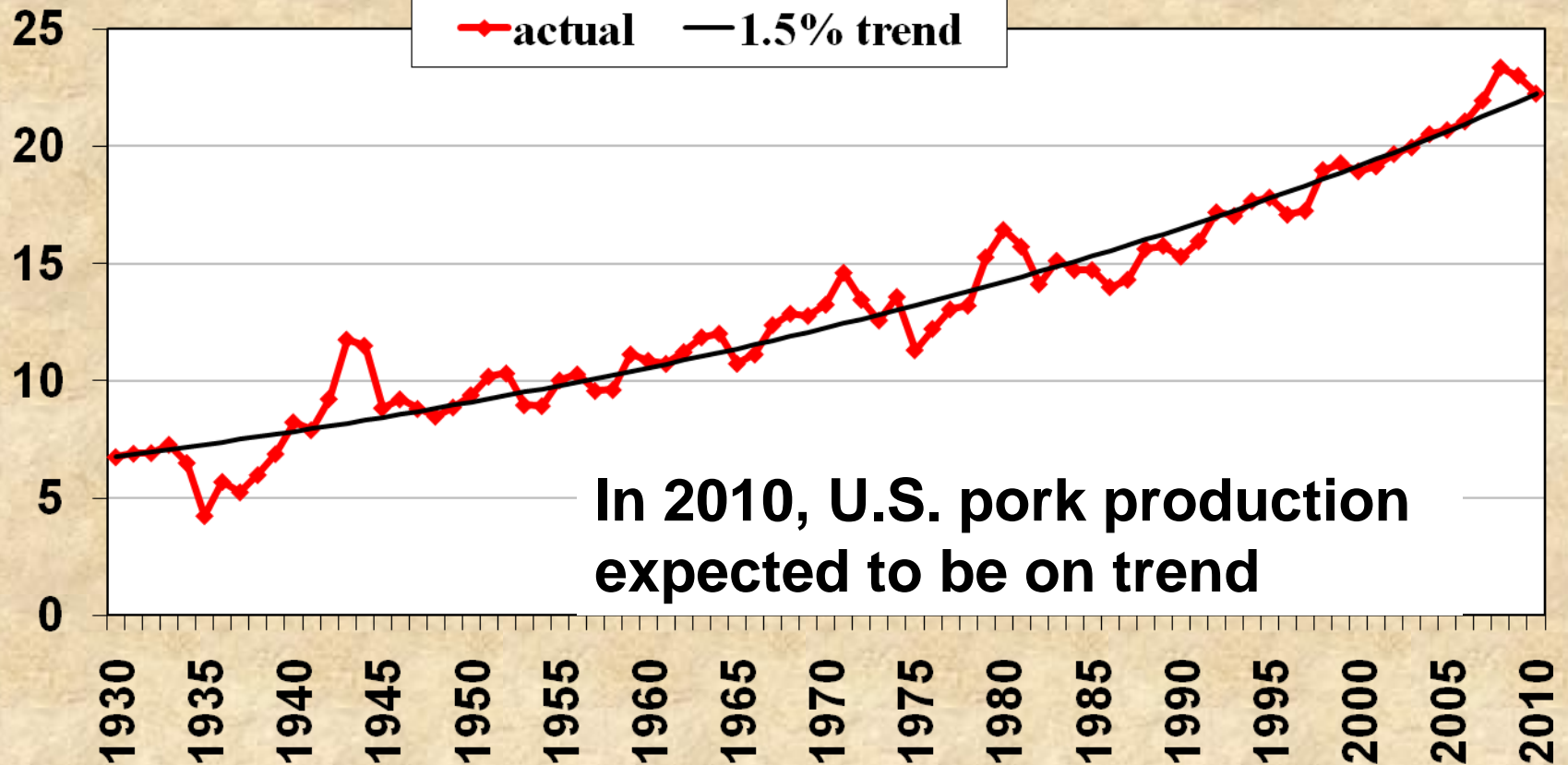
# Forecast Change in Meat Production

<u>Type</u>	<b>--Percent Change--</b>	
	<b>2009-10</b>	<b>2010-11</b>
Pork	-3.3%	+1.9%
Beef	-1.2%	- 2.0%
Chicken	+2.8%	+3.0%
Turkey	-2.0%	+1.7%
All Meats	-0.3%	+1.2%

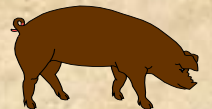
Source: USDA-OCE WASDE, August 2010 and Ron Plain, Univ of Missouri

# Annual U.S. Pork Production, 1930-2010

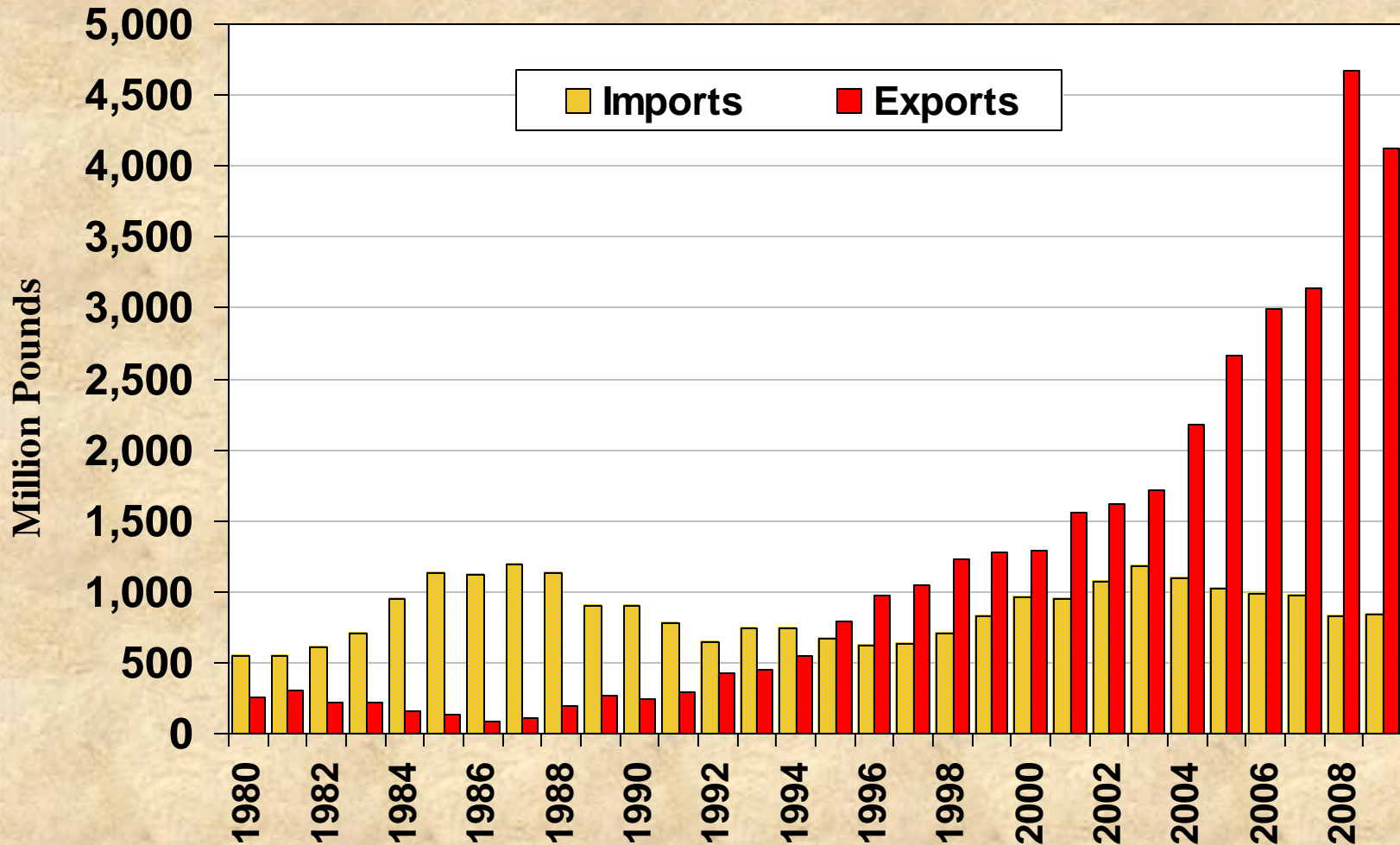
Billion Pounds



Source: Ron Plain, University of Missouri



# U.S. Pork Imports & Exports



Source: Ron Plain, University of Missouri

# Summary

- Meal has value
- But more value must be added through:
  - Improved nutrient composition
  - Improved quality
- To compete with other protein sources
- To meet the increased demand for global animal production