

# FGIS Role in Measuring and Monitoring Grain Quality

Steven N. Tanner

Director, Technical Services Division

Federal Grain Inspection Service

Grain Inspection, Packers and Stockyards Administration

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# Mission

**To facilitate the marketing of livestock, poultry, meat, cereals, oilseeds, and related agricultural products, and promote fair and competitive trading practices for the overall benefit of consumers and American agriculture.**

# Federal Grain Inspection Service

## Core Business Practices

- **Provide the market with terms and methods for quality assessments**
  - Official U.S. Standards for Grain
  - Standard reference and market-practical testing methods
    - Over 1400 maintained
  - Process verification standards
- **Protect the integrity of U.S. grain and related markets**
  - Register exports
  - Mandate export inspection and weighing
  - Prohibit handling practices that degrade quality
  - Promote accurate quality and quantity assessments
- **Provide official grain inspection and weighing services for American agriculture**
  - Network of Federal, State and Private laboratories
    - Over 3 million inspections annually

# Evolving Grain Market

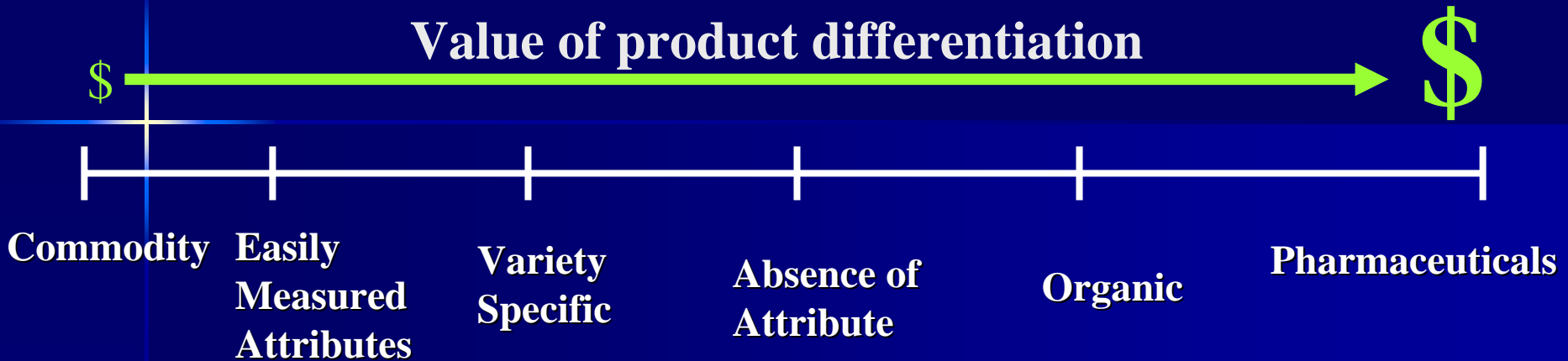
## ■ Commodity Stream

- bulk lower-valued product
- high volumes & tight margins
- majority of volume now & in foreseeable future

## ■ Value Added Stream

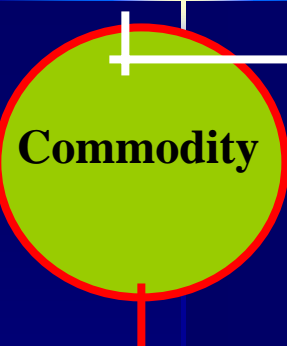
- high quality, high-value products
- tightly linked supply chain

# Grain Marketing Channels



**The U.S. grain market ranges from the commodity market to the very high value added identity preservation system. Between these two extremes lies a market of greater product differentiation driven by technology, consumer demands, and global competition.**

# Grain Marketing Channels



Easily Measured Attributes

Variety Specific

Absence of Attribute

Organic

Pharmaceuticals

**Testing:** rapid (minutes), accurate (USDA reference), reliable, inexpensive.

Commodity Market

High volume  
Low margins

U.S. Grain Standards

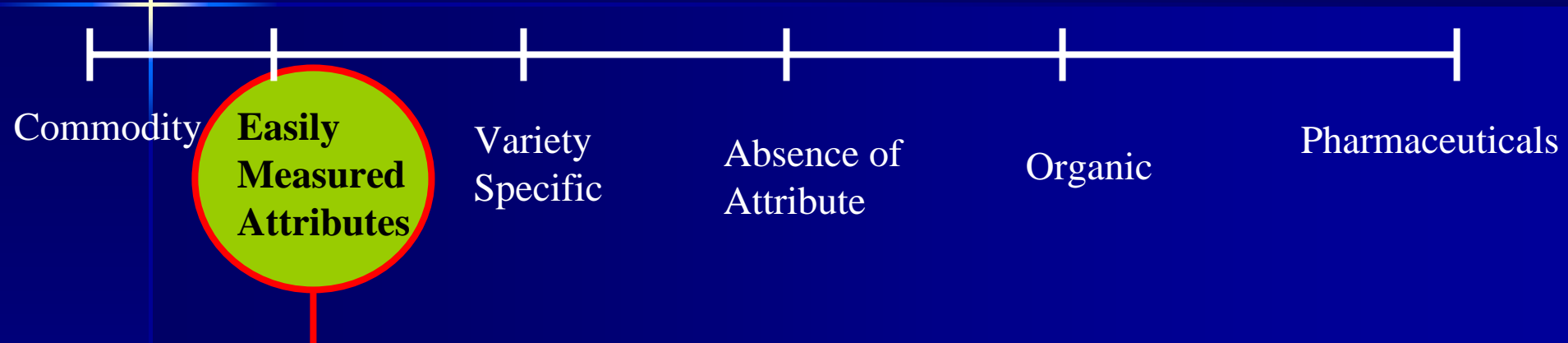
Grain type  
Class  
Subclass  
Quality

Yellow corn  
White corn  
Soybeans  
Hard Red Winter Wheat  
Hard Red Spring Wheat  
Soft Red Winter Wheat  
Soft White Wheat  
Hard White Wheat  
Grades 1 - Sample

Practical Market Driven  
Thresholds/Tolerances  
Mixed Grain > 10%  
Lower Grade  
WOCL  
U.S. # 1 ≤ 2%  
U.S. # 2 ≤ 5%

Multiple commodities coexist in current market

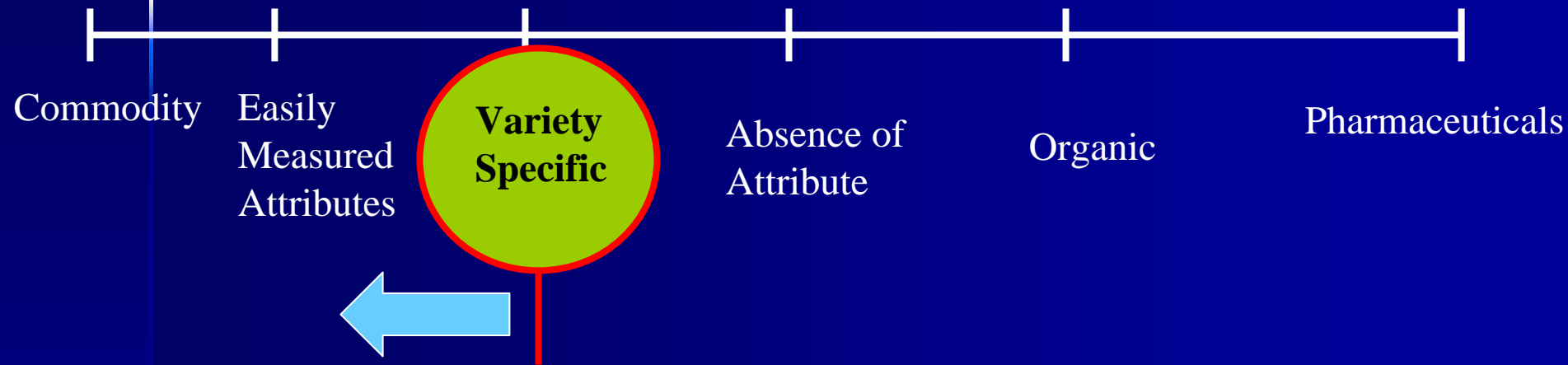
# Grain Marketing Channels



- Protein
- Oil
- Starch

Technology offers the opportunity to expand the measurement of attributes. The challenge is to define the appropriate attributes that reflect end-use value for the diverse products made from today's cereals and oilseeds.

# Grain Marketing Channels



**Farmers contract with handler or processor to produce a specific variety for a specific quality attribute.**

- Premiums
- May specify agronomic practice
- Seed verification (tag, invoice, etc.)
  - Testing unlikely (too costly and slow)
- U.S. standards and quality requirements
- Specified delivery time and location

## **Trend:**

- Quality of protein
- Composition of oil
- Starch attributes

# Export Vessel Loads

<u>Lots</u>	<u>1990</u>	<u>2000</u>
1	70%	56%
<u>≤</u> 2	19%	26%
<u>≥</u> 5	0.7%	4%

# Future Direction

- Improve ability to differentiate end-use quality attributes at first point of sale.
- Establish Process Verification Program.  
*Public comments 2000 --". . . need for USDA to facilitate the marketing of products, not through the traditional grades and standards, but through the exchange of information and services concerning analytical testing and various marketing mechanisms, such as identity preservation and process verification." (67 FR 50853)*
- Maintain a strong and reliable inspection system.
- Expand outreach efforts to harmonize quality assessment protocols and promote transparent and market practical import requirements.