

# Overview of U.S. Grain Handling and Distribution System





ADM  
Cargill  
Agrex - Mitsubishi  
Noble Logistics  
CHS

Louis Dreyfus  
Bunge  
Nidera  
Mitsui  
Glencore  
Itochu



**Toyota Tsusho**

Zen-noh Grain  
Toyota Tsusho  
Gavilon  
The Scoular Company  
Columbia – Marubeni  
TEMCO  
United Grain  
WestPlains  
Thionville  
Assoc. Terminals  
CoBank  
Integrated Commodity Logistics  
J&S Trading - Dubai  
DeBruce  
Star Trading & Marine  
Seaboard Overseas Ltd.  
Degesch America, Inc

Richardson  
Viterra  
CLD Pacific  
EGT  
Kalama Export  
Pasternak, Baum  
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Ghaznavi  
SGS  
Interstate  
Intertek  
TRC Group  
Cam USA  
Blue Water Shipping  
Agri Port Service



Star Trading Inc



TEMCO

Ghaznavi



Kalama Export Company LLC



THE RUSSELL MARINE GROUP

Thionville

GMCC 11 Session Thursday, 10/27/11



UNITED GRAIN

EGT, LLC

Cam, USA

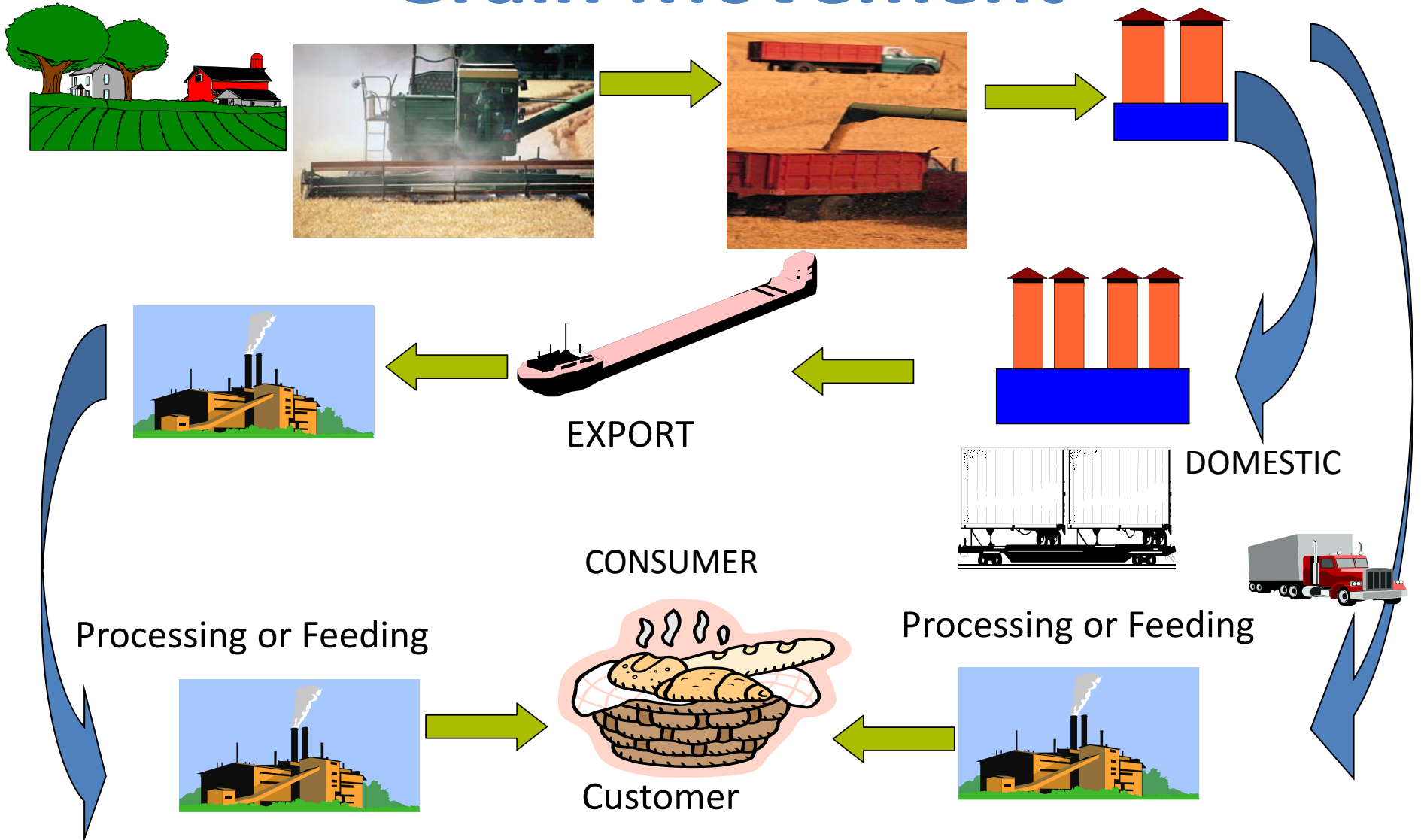


Intertek

Interstate

Integrated Commodity Logistics

# Grain Movement



For Nick

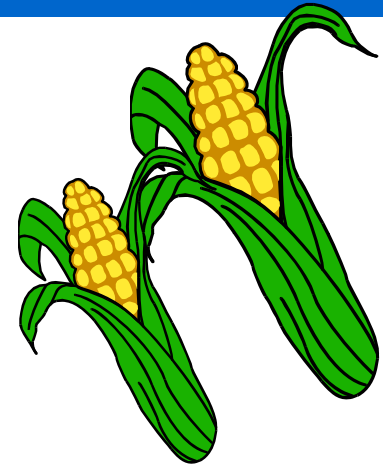


# On Farm Storage



# Farm Storage

- From the field to Farm Storage or to a Country or Terminal Elevator
- Small quantities stored on the farm. 82 MT to 700 MT bin sizes
- Limited quality segregation



# Country Elevator



# Country Elevator Capacities

**Receiving**    20 trucks per hour = 500 MT/hr

**Shipping**    10 trucks per hour = 250 MT/hr

4 to 8 cars per hour = 440 to 880 MT/hr

## Storage Capacities

**Corrugated Steel**                    550 to 13,500 MT

**Concrete**                                680 to 2,700 MT

**Welded Steel**                        13,600 to 27,500 MT

**Flat Storage**                         41,000 to 164,000 MT





# Unit Train Facility





# Unit Train Terminals, Capacities

**Receiving**                      **20 to 40 trucks per hour**

**500 to 1,000 MT/hr**

**Shipping**                      **10 cars per hour**

**1,100 MT/hr**

## Storage Capacities

**Concrete**                      **1,400 to 2,700 MT**

**Welded Steel**                **13,400 to 27,300 MT**

**Flat Storage**                **41,000 to 164,000 MT**



# Barge Facility



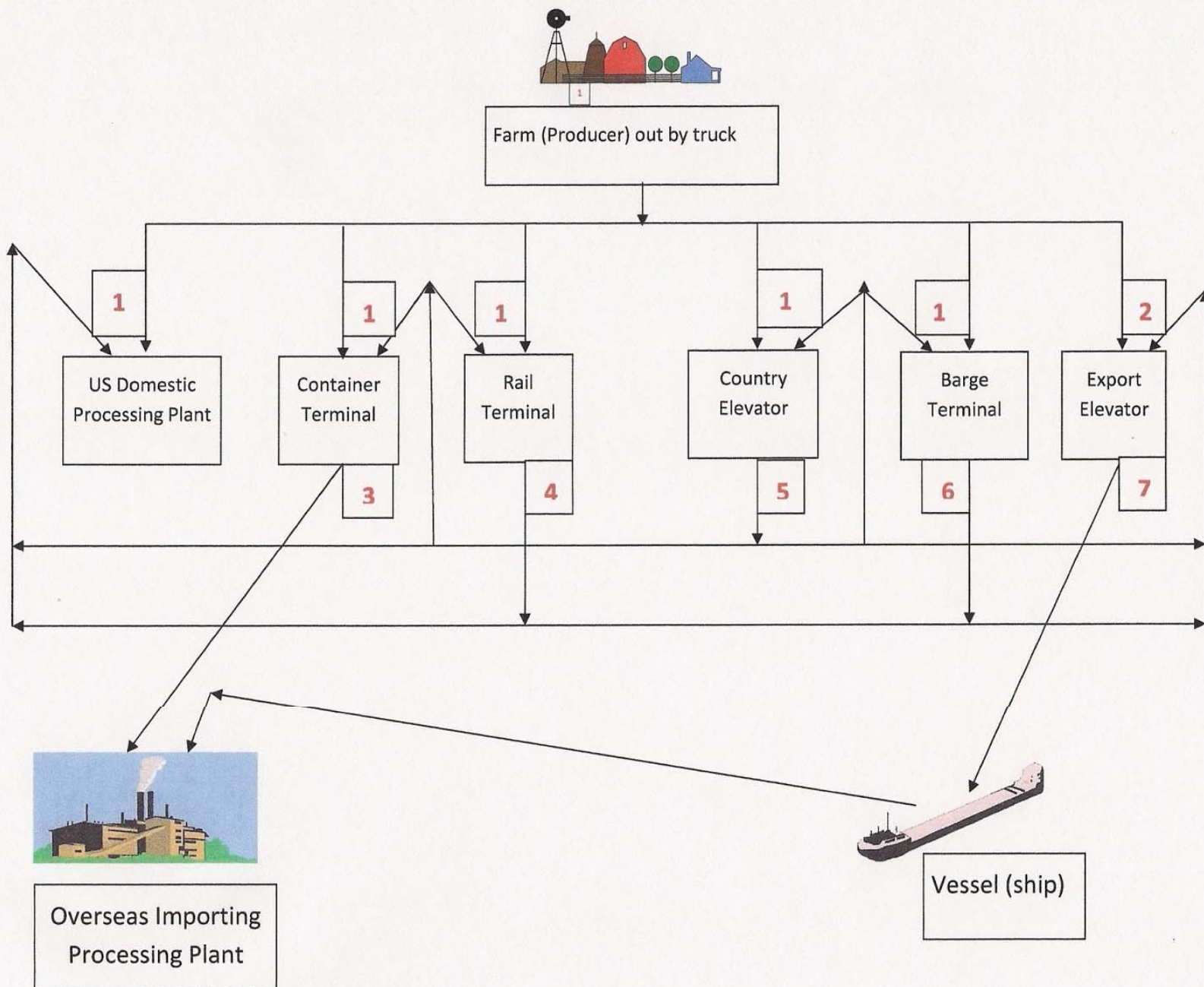
# Barge Terminals, Capacities

<b>Receiving</b>	<b>20 to 40 trucks per hour</b> <b>500 to 1,000 MT/hr</b>
<b>Shipping Barges</b>	<b>500 to 1,000 MT/hr</b>

## Storage Capacities

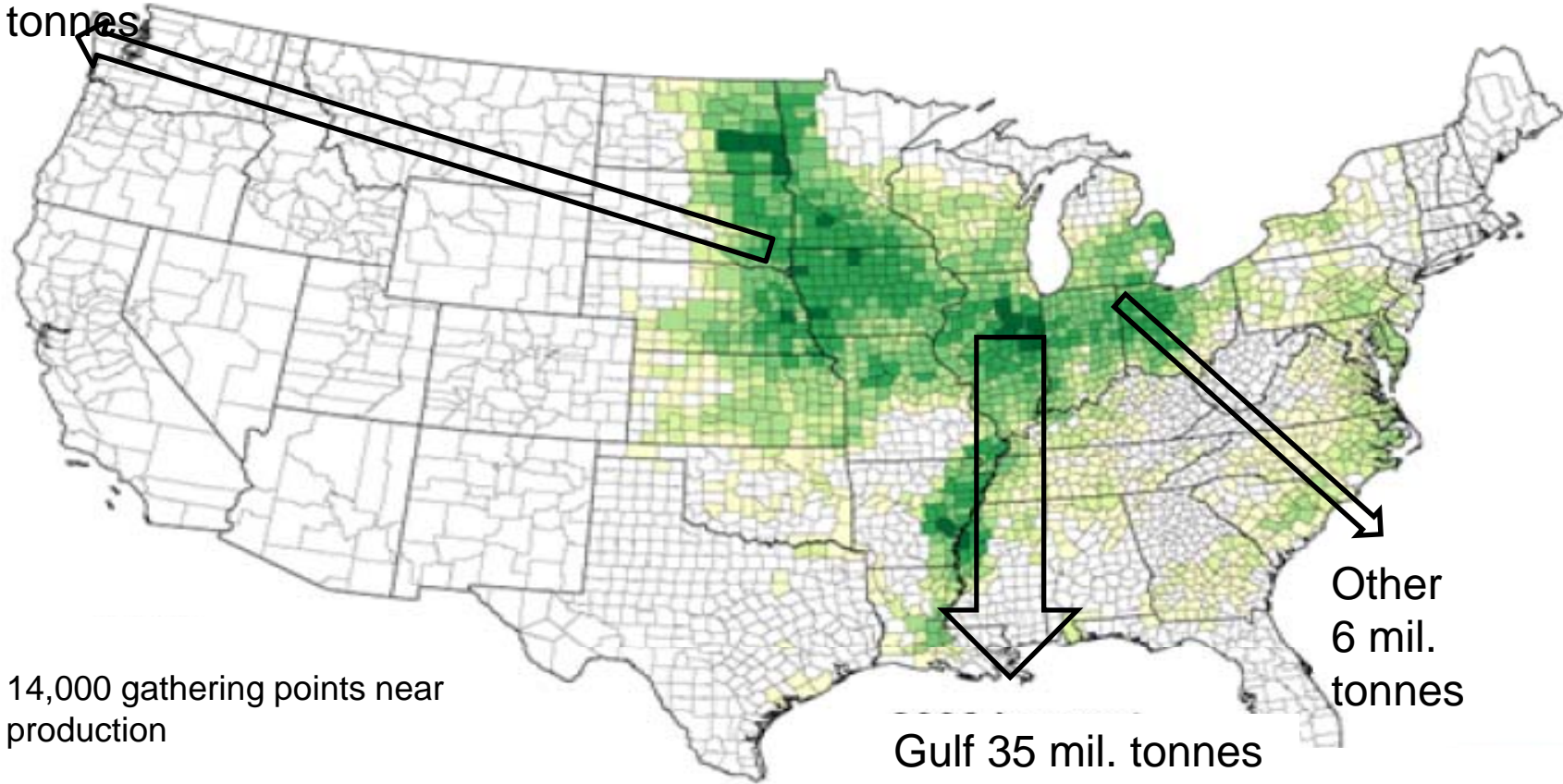
<b>Concrete</b>	<b>1,400 to 2,700 MT</b>
<b>Welded Steel</b>	<b>13,400 to 27,300 MT</b>
<b>Flat Storage</b>	<b>41,000 to 164,000 MT</b>





**526, 000 US Soy Farmers, 30+ million Hectares, 34 states produce c. 90+ mil. tonnes**  
**Production by County**

Pacific 12 mil. tonnes



14,000 gathering points near production

Production moves in commodity trade to supply both domestic and export needs

# Export Facility





# Export Terminals

- Receiving      Rail - 750 to 1,200 MT/hr  
                         Barge - 750 to 2,500 MT/hr
- Loading Vessel - 1,500 to 3,200 MT/hr
- Storage capacity, just in time loading

# Barge Unloading



# Vessel Loading





# Receiving Grain

- Sampled
- Inspected
- Binned by quality factors depending on the number of bins the facility has available for the type of grain being received

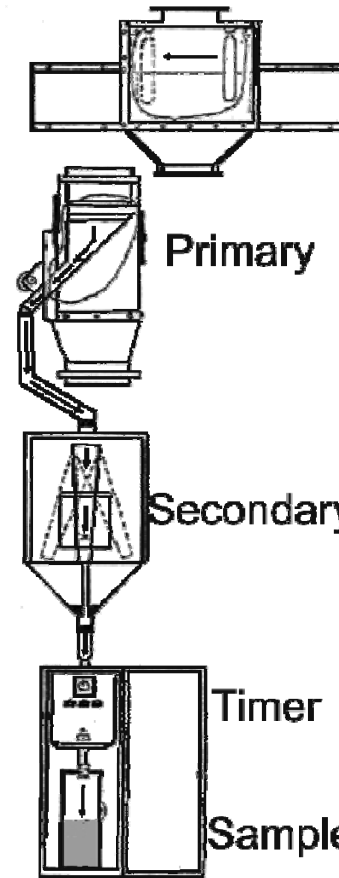
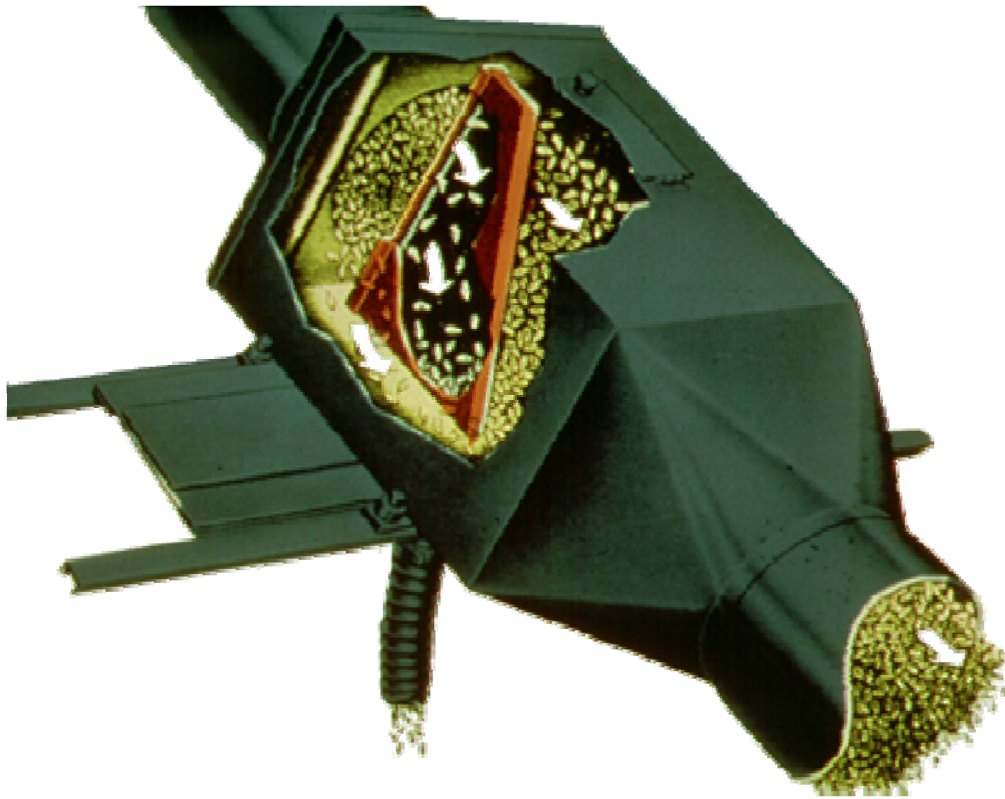
# Mechanical Probe



# Shipping Grain

- Co-mingled from several different bins to adjust quality and uniformity of that quality
- Sampled
- Inspected to assure compliance with the contract

# Mechanical Sampler



Primary

Secondary

Timer

Sample

Timer set for every 7 to 20 MT depending on the loading capacity of the facility

Diverter Type (DT)



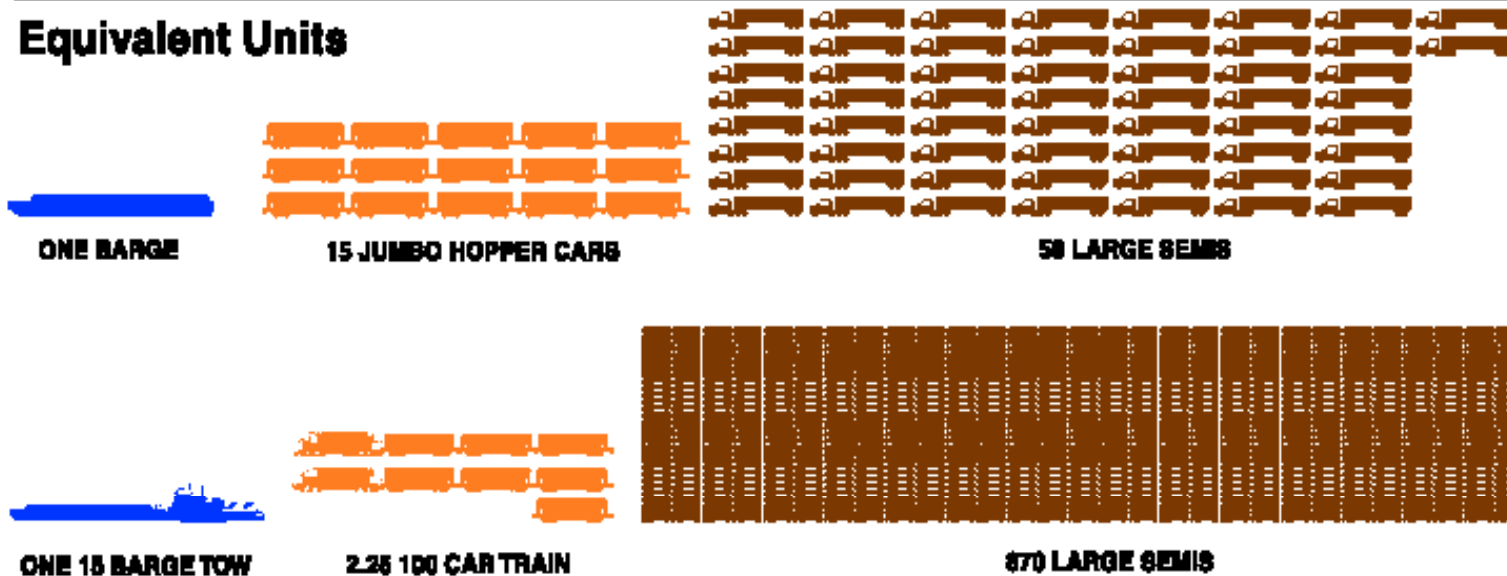
# Grain Transport

Source: Iowa Department of Transportation - ICD Lincoln Hwy - Ames, IA 50016 - 515-280-9079

## Cargo Capacity



## Equivalent Units



1 Panamax (50K tons) = 38 barges = 2200 semi trailers  
 = 2M bushels = 330 trillion soybeans

# *World Bulk Grain Systems*

The grain industry's challenge = move commodities from areas of surplus to areas of deficit, provide for regulatory compliance , safety and cost efficiency

- ✓ Movement is bulk and comingled.
- ✓ 3-24 months contract to delivery lead time
- ✓ Characterized by high volumes, low cost
- ✓ Impossible to keep varieties totally separate in system
- ✓ Commingling may occur in each link of chain
- ✓ Adventitious materials may occur in all shipments of all commodities.



# Thank You



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