

Streamlining IP Traffic Logistics

Scott Sigman – Ports of Indiana
February 26, 2002



South Dakota
WHEAT COMMISSION



UNITED STATES DEPARTMENT OF
AGRICULTURE

Prospects are for More Containerization

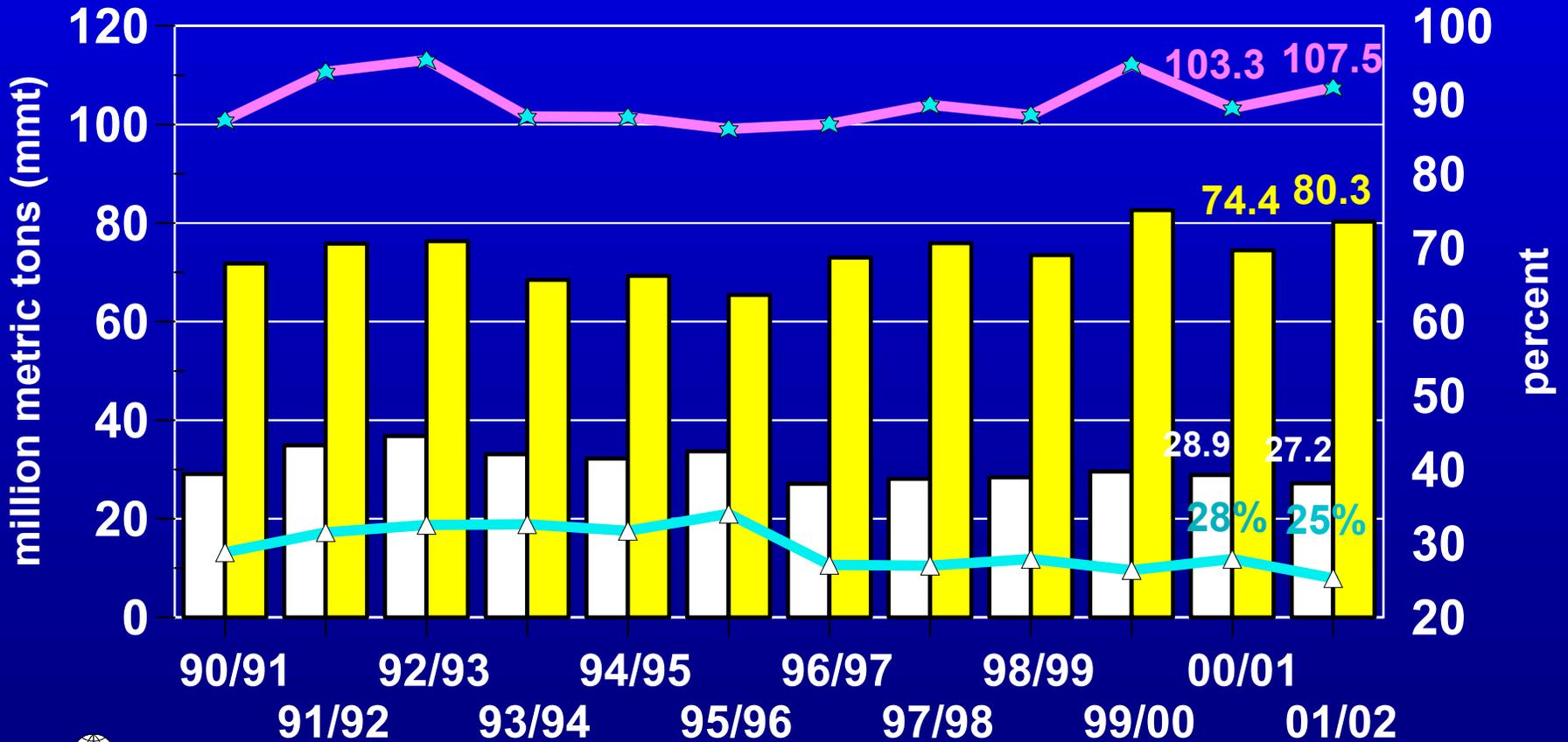
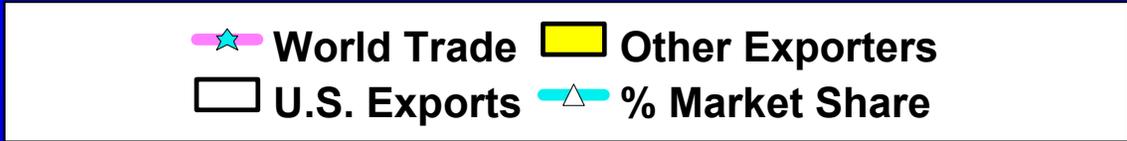
- **1969 - 270,000 TEUS Baseline**
- **1979 - 2,650,000 TEUS 9.8x**
- **1989 - 4,758,000 TEUS 1.8x**
- **1999 - 11,600,000 TEUS 2.4x**
- **2002 – Approx. 15,000,000 TEUS**

**Seaborne Trade increased for the past
13 straight years reaching +5 Billion
tons in a year (1998), globally.**

American farmers should see a bonanza in IP Grain exports

- **1999-2009** – Nations expected to turn to the U.S. to supply their growing needs for livestock and meat production. Latest forecast = 83 percent increase in the worldwide consumption of feed grains, (corn, barley, sorghum and oats) by 2004.
- U.S. corn production is expected to rise nearly 30 percent to 240 million tons annually.

World Trade & United States' Exports



U.S. Wheat Associates, Inc.

Non Traditional Wheat Exporters

In Million Metric Tons

Countries	Production 01-02	Production 00-01	Exports 01-02	Exports 00-01
E. Europe	35.9	28.4	4.7	2.3
Russia	47.0	34.5	2.5	0.7
Ukraine	21.3	10.2	4.5	0.1
Kazakhstan	12.7	9.1	3.0	3.7
India	68.5	75.8	3.0	1.6
Pakistan	19.0	21.1	1.0	0.3
Syria	4.5	2.7	0.3	0.0
Turkey	15.0	17.5	0.5	1.6
TOTAL	223.9	199.2	18.7	10.2



U.S. Wheat Associates, Inc.

Major World Wheat Importers

Purchases in million metric tons

RANKING	01/02 Rank	01/02 Imports	00/01 Rank	00/01 Imports
1	Brazil	6.5	Brazil	7.5
2	Iran	6.5	Iran	6.3
3	EU	6.5	Egypt	6.1
4	Japan	5.8	Japan	5.9
5	Egypt	5.8	Algeria	5.6
6	Algeria	4.5	Indonesia	4.1
7	S. Korea	4.3	Morocco	3.6
8	Indonesia	4.0	Iraq	3.3
9	Philippines	3.3	EU	3.2
10	Iraq	3.3	Philippines	3.1
11	Mexico	3.2	S. Korea	3.1
12	Morocco	2.8	Mexico	3.1



U.S. Wheat Associates, Inc.

Top 10 Customers for U.S. Wheat Exports

Commercial Purchases in million metric tons

RANKING	00/01	Imports	99/00	Imports
	Rank		Rank	
1	Egypt	4.70	Egypt	4.17
2	Japan	3.12	Japan	3.12
3	Mexico	2.03	Philippines	2.17
4	Philippines	2.02	Mexico	1.96
5	EU	1.43	Korea	1.48
6	Nigeria	1.43	EU	1.30
7	Korea	1.40	Nigeria	1.19
8	Taiwan	1.03	Taiwan	1.00
9	Indonesia	.75	Israel	.92
10	Israel	.71	Colombia	.73



U.S. Wheat Associates, Inc.

Competition

EUROPE

Competition from Eastern, Central and Western Europe

ARGENTINA

Competition for Europe, Asia and the Americas Markets

AUSTRALIA

Containerized Export Grains moving directly from Farm gate to Terminal

Standard container ships: USD 62m /6,500 TEU capacity ships
USD 53 mn/5,500 TEU, USD 47 mn/4,800 TEU. Prices to rise.
Shipyard capacity believed to be full until the end 2000.
Fleet of box *ships* +3,000 TEU to increase 19 percent in 2000
by far outpacing forecast world trade growth.

Economical & Competitive: Containerized Cargo

- **Availability - Even in remote locations**
 - Ports, Depots, shipper pools, neutral pools
- **Intermodal transport**
 - Flatbed, Chassis, Rail, Barge, Ocean Carrier
- **Ease of loading, unloading**
 - Tilt, Crane, Forklift, Hand
- **Security and Controls**
 - Door seals, TIR, Volume

Economical & Competitive: Containerized IP Grain Cargo

- **Less Silo to Silo transfer movement & costs upon harvest**
 - **Less double handling & movement costs of product**
- **Better Control of IP Grain flows**
 - **Allows improved planning for future storage and facility requirements**

Reliability

The value of time

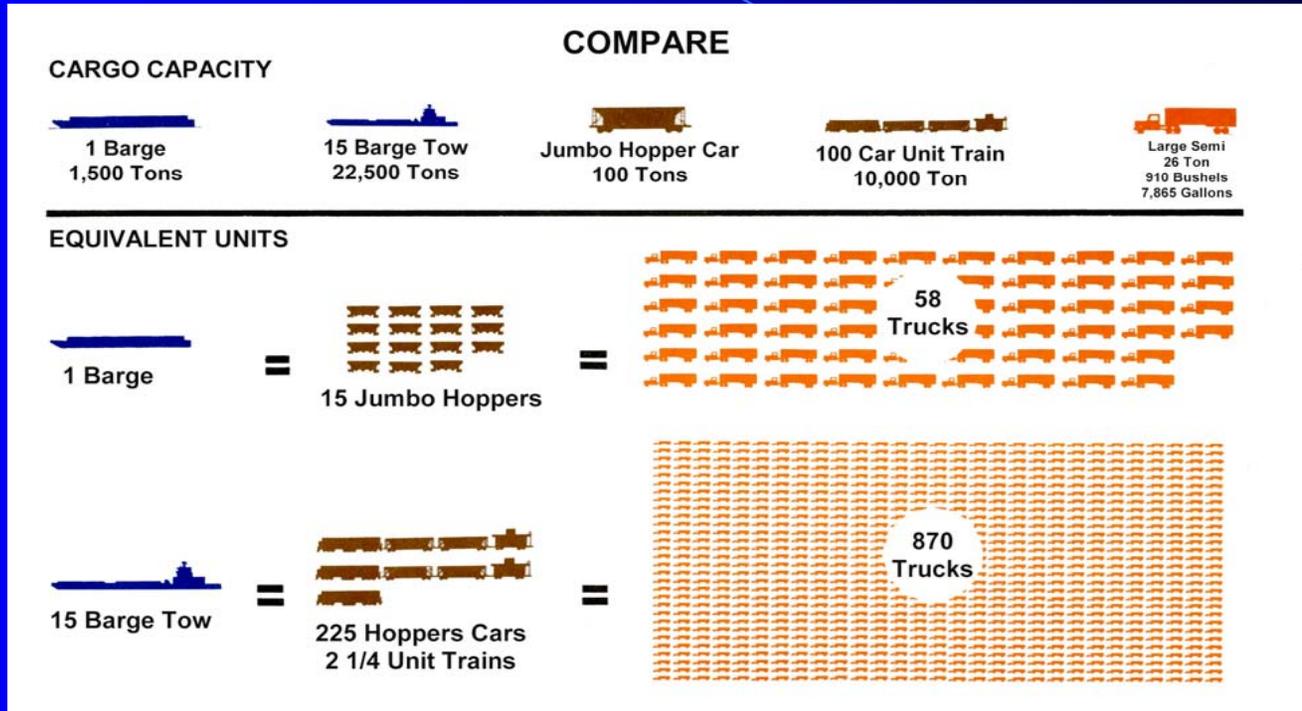
**Time lost in unexpected delay
(i.e., reliability of travel time)**

vs.

Routine travel time

**The literature suggests it could be valued
three times higher!**

Transport Economics



Cost structure of alternative freight transportation modes COMPARING MODES OF TRANSPORT

- Consider time
- Consider Reliability
- Consider Size of Shipment

Let's Talk Containers

● TEU's		FEU's,			
–	20'	40'	High Cube	45'	
● CUBE	1172 CBF	2390 CBF	2700 CBF	3000 CBF	
● LOAD	21-28 MT	26.75 MT	26.5 MT	28.5 MT	

- DRY CONTAINERS

- - Dry vans, DV's, DC's, GP's, Std's, High cubes

SPECIALS

- - Open Tops, O.T.'s
- - Flat Racks, Flats, Flat Vans, F.V.'s, F.R.'s

COFC

Container On Flat Car



- **Local Wheels needed**
- **Lift and Ramp needed**
- **Lower cost on rail**
- **Can be double stacked**

Terminal Operation

Lift or Load



A Heavy Container



- **Mounted Container on a Tri-Axle Trailer**
- **18 oz/sq.yd poly, waterproof tarp**
- **Galvanized grommets 175-180mm**

Elements of a Container



40' HV Container on standard chassis, moved TOFC on rail lifted, swung mounted and then pulled from terminal via truck

INTERMODAL Lift from Truck to Rail



- Quick movement possible
- Relatively low technology
- Containers can be grounded or live loaded



Or Rail to Truck

Lift from Truck or Rail to...



Or From Barges to Truck or Rail

Containers carried by barges passing the Port of Antwerp rose by 8% to 11 million tons, the equivalent of 1.1 million TEU or 550,000 road vehicles, in 1998.

**length 85 meters
width 9.50 meters**

**draught 3 meters
cargo capacity 1,500 tons**

Terminal Operation

Lift or Load



A Bulk Load



Container Character Readers

- Reads ISO code numbers
- Stores code numbers for long-term tracking/proof of receipt
- Operates 24/7/365
- Works in harsh environments
- Provides immediate manifests verification
- Interfaces with photo ID archiving technology
- Integrates with existing systems and scales



Global Positioning

- **GIS – Field level**
- **In Transit**
- **Customer tracking**
- **On terminal, On rail, On truck, On ship,**
- **At Destination**
- **Trading by container lots**
- **5 year storage life under 13% moisture**

Reducing unit costs

- 80,000# GVWR Truck
- Chassis 6500# regular 9000# HD
- 20' Tare 4500#
- Truck 18,000# Plus Driver
- Dunnage 500# Packaging Plus Bracing

- Cargo 50,500# 48,000# HD
- 20' CAPACITY 28 MT = 60,000 #

Solution!!!

IP Grain Marketing

- **Our grain popcorn has the following characteristics:**

Percentage of pop: 97-98%

Volume ratio: 38:1

Moisture content: 14%

Kernels/10 grams: 64-65

50 lb bags/20 ft oversea shipping container: 900

Availability: Immediately

Price: \$7.95 per 50 lb bag FOB Oakland (San Francisco), California, plus freight charges to your destination.

Quantity limit: Minimum one 20 ft. container (900 bags).

- **I am interested in contacting your company, and I want the following products: Grain popcorn in bags with weight of**

- 50 LB

100 LB

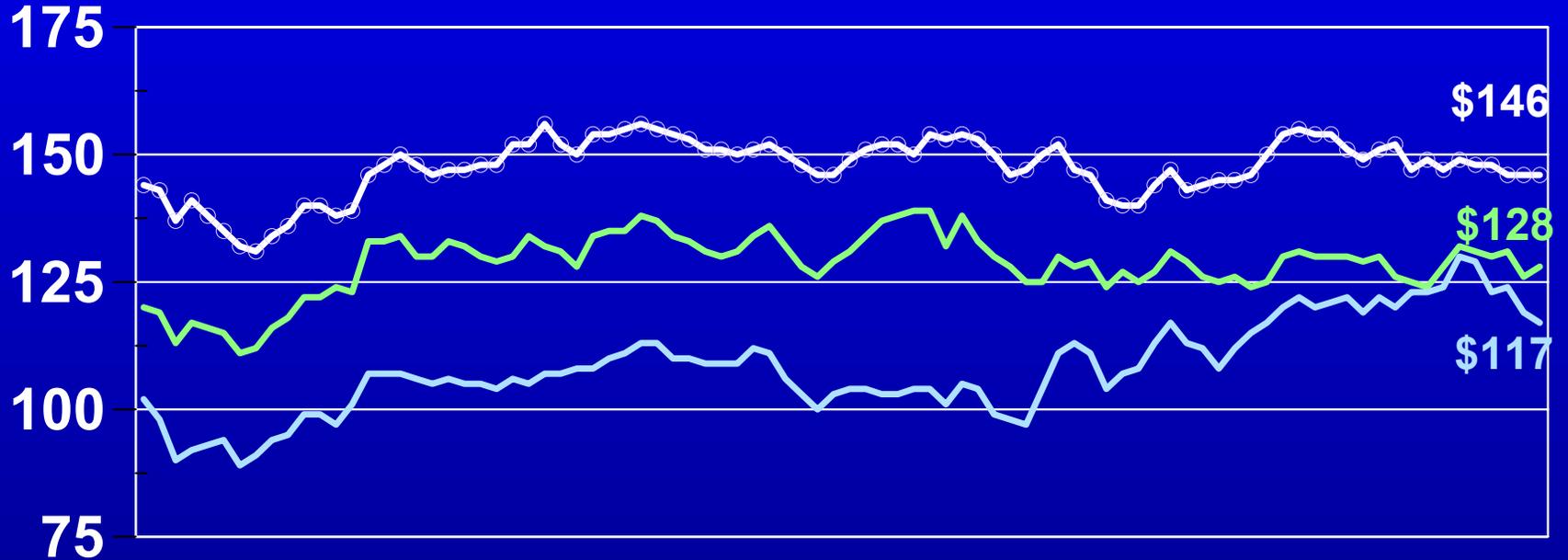
22 K

44 K

FOB U.S. Gulf Wheat Prices (Seasonal Review)

\$/MT

○ HRS 14% — HRW 11% — SRW

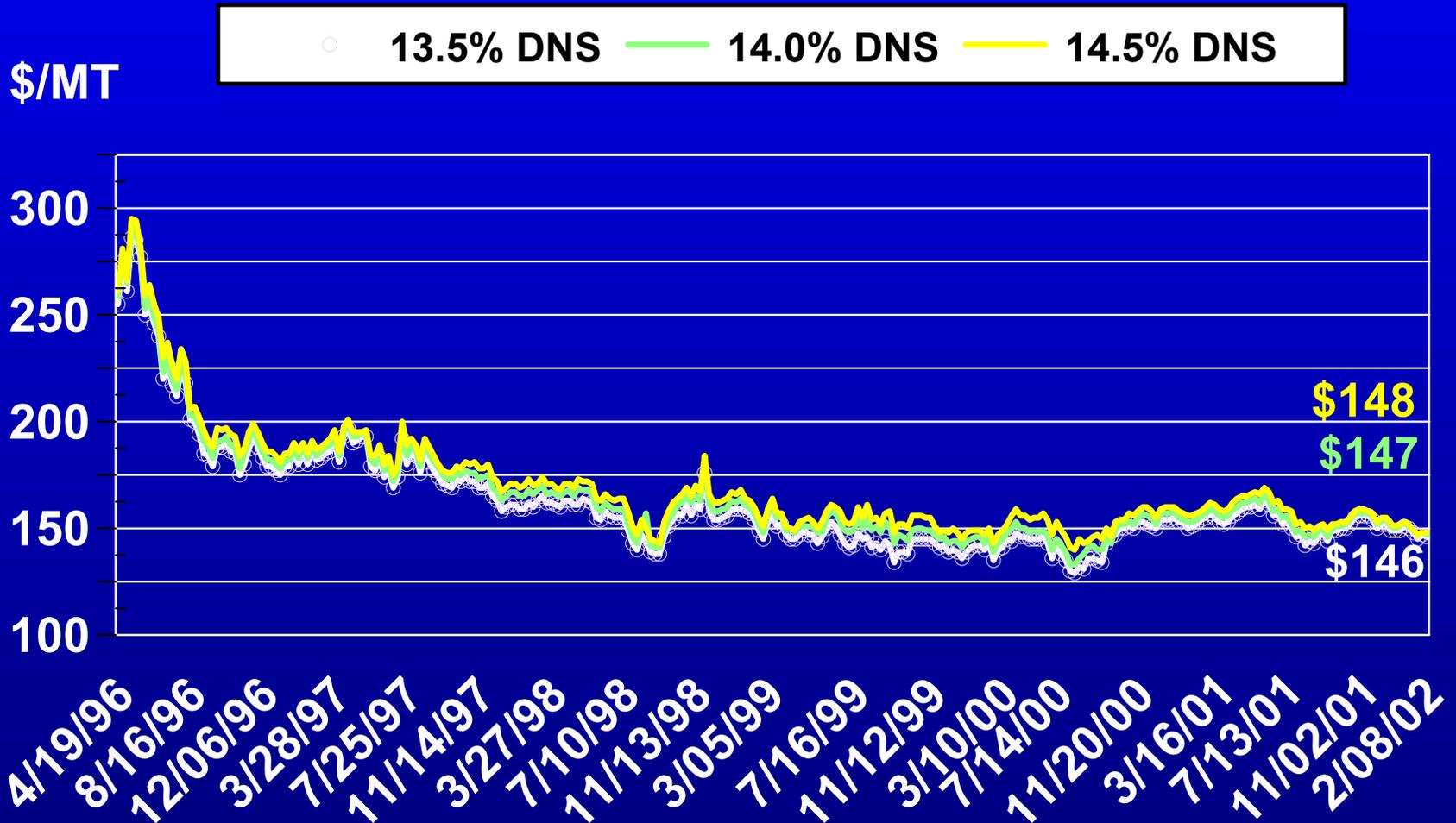


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01/25/2002
02/08/2002



U.S. Wheat Associates, Inc.

FOB PNW (Portland) Wheat Prices



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Solution!!!

Transport Alternatives

BIG BAGS – Container Liners

- **Load via pneumatic, mechanical or gravity**
- **\$225-\$350 cost/ tar weight is only 150 # @ .7 mil thickness**
- **Food Grade Application**
- **Open top or end loading; tilt/pneumatic unloading.**
- **Moisture and contaminant control, density**

Bulk Bags – 17-20 x 1 Ton Bags

- **Easier unloading w/o tilt**

Solution!!!

SHIPPER POOL

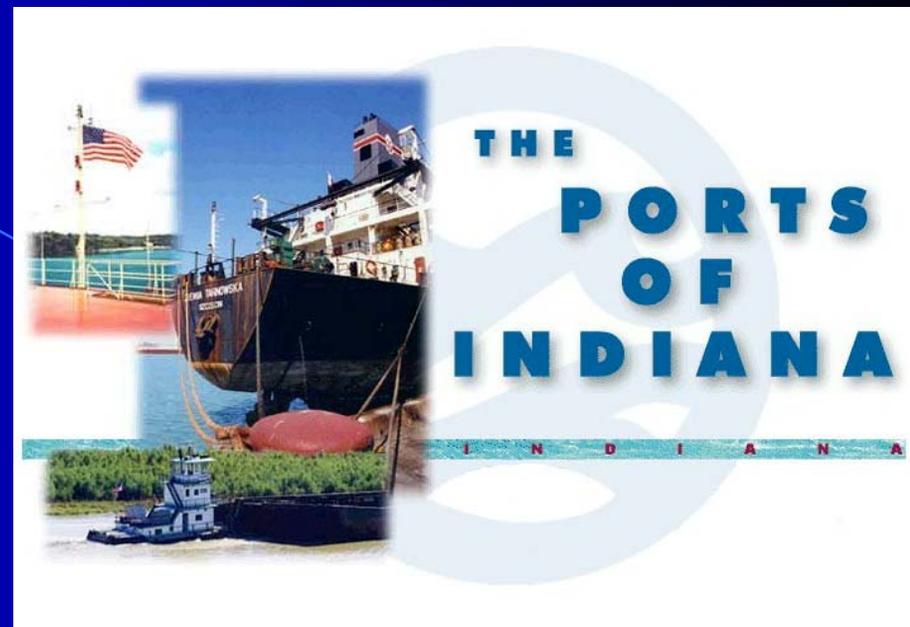
- **Neutral Containers staged at any location**
- **Food Grade can be specified**
- **Any size or type; DC, HC, OT, FV**
- **For pick-up by any steamship line with prior agreement**
- **Load anytime, day, night or week-end**
- **The ocean carrier pays for the unit when their bill of lading begins**
- **Inland Transport cost savings with round trips - load out, empty returned**

Summary

- **Trade increases / global competition is real**
- **Containerization is competitive and workable especially for IP Grains**
- **Define your cargo loadability**
- **Qualify destination needs upon delivery**
- **International customers require 1st rate delivery and customer service**

Thank you!

**For more
information on
Ports of Indiana
visit our Web site at**



www.portsofindiana.com

**Scott J. Sigman
Chief Planning & Business
Development Officer
Email: ssigman@indports.com**

**Ports of Indiana
150 W. Market St., Ste. 100
Indianapolis, IN 46260
1-800-233-PORT**