



# Grain Transportation Report

A weekly publication of the  
 Transportation and Marketing Programs/Transportation Services Branch  
[www.ams.usda.gov/tmdtsb/grain](http://www.ams.usda.gov/tmdtsb/grain)

Mar. 16, 2006

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The next  
 release is  
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**Shipping Soybeans From United States and Brazil to Europe Cost More During 4<sup>th</sup> Quarter.** The cost of shipping soybeans from Minneapolis, MN, and Davenport, IA, to Hamburg, Germany, was 18 percent higher during the 4<sup>th</sup> quarter than it was in the 3<sup>rd</sup> quarter 2005 (see table).

Quarterly costs of transporting soybeans from U.S. and Brazil to Hamburg, Germany

	2005			2005		
	3rd qtr.	4th qtr.	Percent change	3rd qtr.	4th qtr.	Percent change
<b>United States</b>						
<b>Minneapolis, MN</b>						
	--\$/mt--		--%--			
Truck	8.90	10.06	13.03	8.90	10.06	13.03
Barge	28.88	36.71	27.11	23.63	30.91	30.81
Ocean <sup>1</sup>	21.34	22.81	6.89	21.34	22.81	6.89
Total transportation <sup>2</sup>	59.12	69.58	17.69	53.87	63.78	18.40
Farm Value <sup>3</sup>	224.26	207.11	-7.65	225.97	207.60	-8.13
Landed Cost	283.38	276.69	-2.36	279.84	271.38	-3.02
Transport % of landed cost	20.86	25.15		19.25	23.50	
<b>Brazil</b>						
<b>Northwest RS<sup>4</sup> - Rio Grande<sup>5</sup></b>						
	--\$/mt--		--%--			
Truck	12.65	13.20	4.35	80.67	80.86	0.24
Ocean <sup>6</sup>	43.04	55.23	28.32	43.54	55.73	28.00
Total transportation <sup>2</sup>	55.69	68.43	22.88	124.21	136.59	9.97
Farm Value <sup>7</sup>	214.23	206.36	-3.67	175.08	174.28	-0.46
Landed Cost	269.92	274.79	1.80	299.29	310.87	3.87
Transport % of landed cost	20.63	24.90		41.50	43.94	
<b>South GO<sup>4</sup> - Santos<sup>5</sup></b>						
	--\$/mt--		--%--			
Truck	41.86	42.56	1.67	22.76	21.25	-6.63
Ocean	44.54	56.73	27.37	43.54	55.73	28.00
Total transportation <sup>2</sup>	86.40	99.29	14.92	66.30	76.98	16.11
Farm Value <sup>7</sup>	188.26	184.89	-1.79	222.81	214.81	-3.59
Landed Cost	274.66	284.18	3.47	289.11	291.79	0.93
Transport % of landed cost	31.46	34.94		22.93	26.38	
<b>North MT<sup>4</sup> - Paranagua<sup>5</sup></b>						
	--\$/mt--		--%--			
Truck	80.67	80.86	0.24	80.67	80.86	0.24
Ocean <sup>6</sup>	43.54	55.73	28.00	43.54	55.73	28.00
Total transportation <sup>2</sup>	124.21	136.59	9.97	124.21	136.59	9.97
Farm Value <sup>7</sup>	175.08	174.28	-0.46	175.08	174.28	-0.46
Landed Cost	299.29	310.87	3.87	299.29	310.87	3.87
Transport % of landed cost	41.50	43.94		41.50	43.94	
<b>North Center PR<sup>4</sup> - Paranagua<sup>5</sup></b>						
	--\$/mt--		--%--			
Truck	22.76	21.25	-6.63	22.76	21.25	-6.63
Ocean	43.54	55.73	28.00	43.54	55.73	28.00
Total transportation <sup>2</sup>	66.30	76.98	16.11	66.30	76.98	16.11
Farm Value <sup>7</sup>	222.81	214.81	-3.59	222.81	214.81	-3.59
Landed Cost	289.11	291.79	0.93	289.11	291.79	0.93
Transport % of landed cost	22.93	26.38		22.93	26.38	

<sup>1</sup>Source: The Baltic Exchange; <sup>2</sup>Excludes handling charges

<sup>3</sup>Source: USDA/NASS

<sup>4</sup>Producing regions: RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná

<sup>5</sup>Export ports

<sup>6</sup>Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

<sup>7</sup>Source: Companhia Nacional de Abastecimento (CONAB) [www.conab.gov.br](http://www.conab.gov.br)

The cost of moving soybeans from Northwest RS and North Center PR, Brazil, to Hamburg increased about 23 and 16 percent, respectively, over the 3<sup>rd</sup> quarter. The costs of transporting from North MT and South GO were 10 and 15 percent higher, respectively, during the 4<sup>th</sup> quarter.

Rates for U.S. truck, barge, and ocean-going vessels increased during the 4<sup>th</sup> quarter.

Increased truck rates were partly due to higher fuel prices and increased competition for available trucks. The rise in barge rates may be attributed to the increased grain shipments that normally occur during the harvest period and to disruptions caused by hurricanes. An increase in ocean freight rates follows the global trend during the 4<sup>th</sup> quarter. Ocean freight rates bounced back slightly from a 3<sup>rd</sup> quarter decline due to increased break-bulk trade and rebuilding of the U.S. Gulf following hurricanes Katrina and Rita.

Ocean freight rates in Brazil increased by 27 to 28 percent during the 4<sup>th</sup> quarter, while

U.S. rates only increased by 7 percent. The difference in freight rate increases may have been caused by the number of vessels needed to supply the U.S. import market, which resulted in additional vessels available to export cargo from the United States. In the Southern Hemisphere, grain exporters must compete for vessel space with various raw materials, such as coal and mining products. For example, Australia is a leading coal exporter, while Brazil is the world's leading exporter of iron ore.

The transport costs from the U.S. to Hamburg were 24 to 25 percent of the landed cost; Brazil's transport costs were 25 to 44 percent of the landed cost (see table). [Surajudeen.Olowolayemo@usda.gov](mailto:Surajudeen.Olowolayemo@usda.gov), [ahgameir@esalq.usp.br](mailto:ahgameir@esalq.usp.br)

# Grain Transportation Indicators

**Table 1--Grain transport cost indicators\***

Week ending	Truck	Rail**	Barge	Gulf	Ocean
					Pacific
03/15/06	171	-24	187	162	206
<b>Compared with last week</b>	Unchanged	↓	↓	↑	↑

\*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = nearby secondary rail market (\$/car); barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

\*\*The rail indicator is not an index. It is the difference between the nearby secondary rail market bid for this week and the average bid for year 2000 (+) 100.

Source: Transportation & Marketing Programs/AMS/USDA

**Table 2--Market update: U.S. origins to export position price spreads (\$/bushel)**

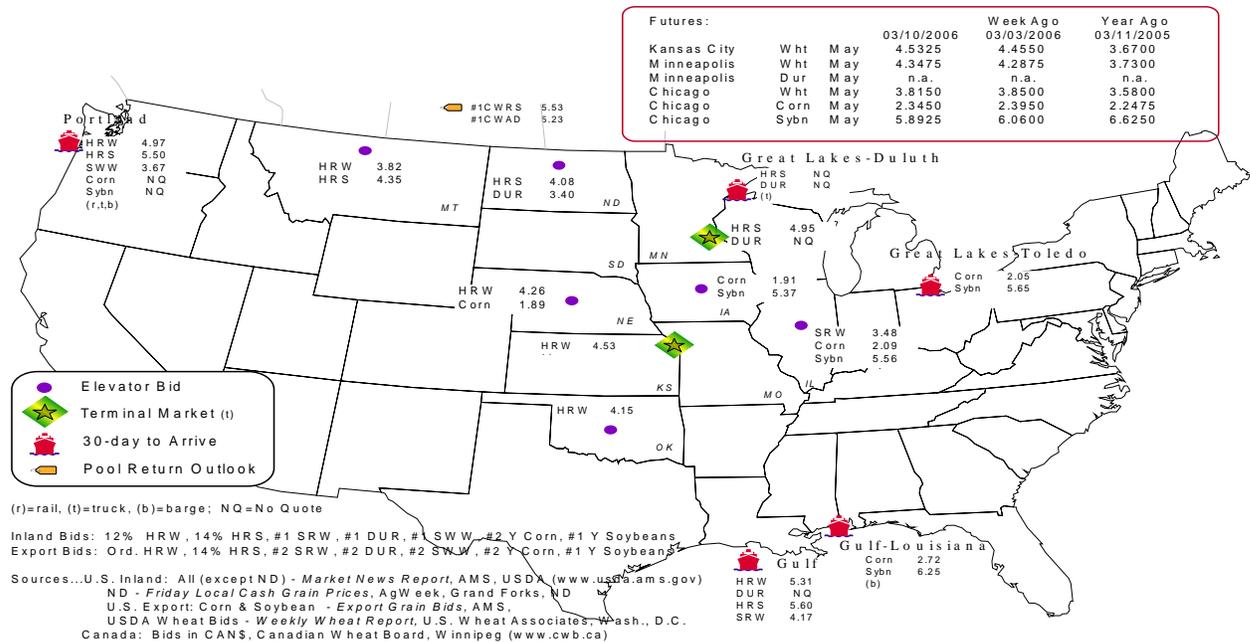
Commodity	Origin--destination	3/10/2006	3/3/2006
Corn	IL--Gulf	-0.63	-0.66
Corn	NE--Gulf	-0.83	-0.87
Soybean	IA--Gulf	-0.88	-0.92
HRW	KS--Gulf	-0.78	-0.77
HRS	ND--Portland	-1.42	-1.34

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1  
**Grain bid summary**



# Rail Transportation

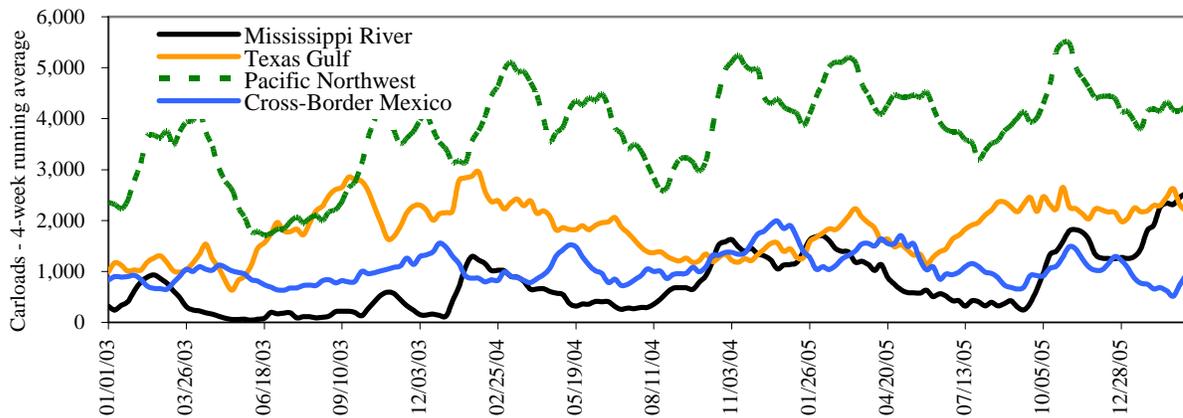
**Table 3--Rail deliveries to port (carloads)\***

Week ending	Mississippi Gulf***	Texas Gulf	Cross-Border	Pacific	Atlantic &	Total
			Mexico****	Northwest	East Gulf	
3/08/2006 <sup>p</sup>	2,956	1,935	1,143	4,223	722	10,979
3/01/2006 <sup>r</sup>	2,305	1,593	1,250	4,269	629	10,046
2006 YTD	21,761	22,821	7,449	41,737	5,330	99,098
2005 YTD	14,869	17,972	12,701	46,998	5,059	86,747
2006 as % of 2005	146	127	59	89	105	114
Total 2005**	50,677	99,864	60,879	223,328	15,752	450,500
Total 2004	43,102	92,073	59,102	209,625	10,986	414,888

(\*) Incomplete Data; as of 9/22/04, Cross-Border movements included; (\*\*) Includes 53rd week; (\*\*\*) Mississippi Gulf data back to January, 2004 from several new sources has been added; (\*\*\*\*) **Cross-border Mexico data for 2004 and 2005 has been amended to reflect amendments submitted by our sources.** YTD= year-to-date; p=preliminary data; r = revised data

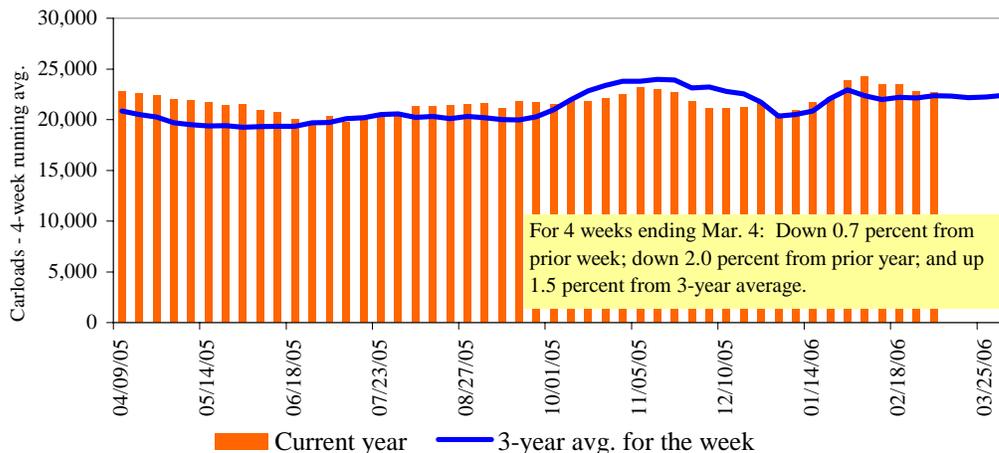
Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2  
**Rail deliveries to port**



Source: Transportation & Marketing Programs/AMS/USDA

Figure 3  
**Total weekly U.S. grain car loadings for Class I railroads**



Source: Association of American Railroads

**Table 4--Class I rail carrier grain car bulletin (grain carloads originated)**

Week ending	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
03/04/06	3,380	3,228	10,269	372	6,088	23,337	4,847	4,059
This week last year	3,190	3,192	10,270	681	5,388	22,721	4,668	3,507
2006 YTD	29,232	29,683	90,675	4,903	55,810	210,303	43,766	39,933
2005 YTD	28,198	31,081	87,912	6,325	52,578	206,094	41,574	36,729
Last 4 weeks as % of 2005	98.5	94.4	98.2	67.1	103.2	98.0	100.4	111.1
2006 as % of 2005	103.7	95.5	103.1	77.5	106.1	102.0	105.3	108.7
Total 2005	152,060	167,465	476,033	27,459	307,170	1,130,187	225,817	215,145

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

**Table 5--Rail car auction offerings\*, week ending 03/11/06 (\$/car)\*\***

Delivery for:	Apr-06	May-06	Jun-06
BNSF <sup>1</sup>			
COT/N. grain	no offer	\$14	\$10
COT/S. grain	no bids	no bids	no bids
UP <sup>2</sup>			
GCAS/Region 1	no bids	no bids	no offer
GCAS/Region 2	no bids	no bids	no offer

\*Auction offerings are for single-car and unit train shipments only.

\*\*Average premium/discount to tariff, last auction

<sup>1</sup>BNSF - COT = Certificate of Transportation

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

<sup>2</sup>UP - GCAS = Grain Car Allocation System

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

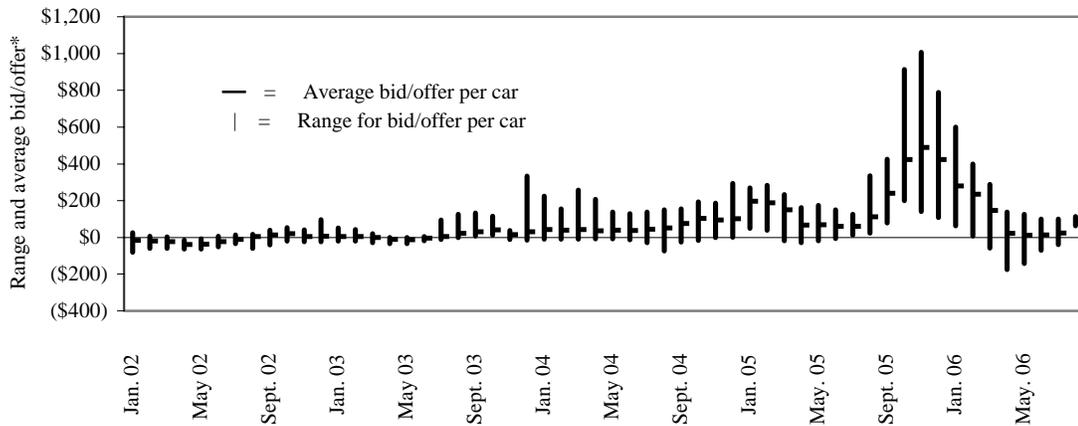
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Rail service may be ordered directly from the railroad via **auction** for guaranteed service, or via tariff for nonguaranteed service, or through the secondary railcar market.

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The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4  
**Secondary rail car market, delivery month-year**



\*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

**Average bid/offer** is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Range for bid/offer** shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Table 6--Weekly secondary rail car market, week ending 03/11/06 (\$/car)\***

	Delivery period			
	Apr-06	May-06	Jun-06	Jul-06
BNSF-GF	-\$63	-\$63	-\$25	\$17
Change from last week	-\$37	-\$28	-\$19	-\$6
UP-Pool	-\$175	-\$142	-\$33	\$16
Change from last week	-\$50	-\$17	\$0	\$32

\*Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

**Table 7--Tariff rail rates for unit and shuttle train shipments\***

Effective date:

3/6/2006

	Origin Region	Destination Region	Rate/car	Rate/metric ton	Rate/bushel**
<b><u>Unit train*</u></b>					
Wheat	Chicago, IL	Albany, NY	\$1,861	\$20.51	\$0.56
	Kansas City, MO	Galveston, TX	\$2,020	\$22.27	\$0.61
	South Central, KS	Galveston, TX	\$2,450	\$27.01	\$0.74
	Minneapolis, MN	Houston, TX	\$2,420	\$26.68	\$0.73
	St. Louis, MO	Houston, TX	\$2,360	\$26.01	\$0.71
	South Central, ND	Houston, TX	\$4,149	\$45.73	\$1.24
	Minneapolis, MN	Portland, OR	\$3,963	\$43.68	\$1.19
	South Central, ND	Portland, OR	\$3,963	\$43.68	\$1.19
	Northwest, KS	Portland, OR	\$4,490	\$49.49	\$1.35
Corn	Chicago, IL	Richmond, VA	\$2,161	\$23.82	\$0.65
	Chicago, IL	Baton Rouge, LA	\$2,610	\$28.77	\$0.73
	Council Bluffs, IA	Baton Rouge, LA	\$2,470	\$27.23	\$0.69
	Kansas City, MO	Dalhart, TX	\$2,365	\$26.07	\$0.66
	Minneapolis, MN	Portland, OR	\$3,130	\$34.50	\$0.88
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.55
	Columbus, OH	Raleigh, NC	\$1,850	\$20.39	\$0.52
	Council Bluffs, IA	Stockton, CA	\$3,606	\$39.75	\$1.01
	Soybeans	Chicago, IL	Baton Rouge, LA	\$2,655	\$29.27
Council Bluffs, IA		Baton Rouge, LA	\$2,515	\$27.72	\$0.75
Minneapolis, MN		Portland, OR	\$3,610	\$39.79	\$1.08
Evansville, IN		Raleigh, NC	\$1,961	\$21.62	\$0.59
Chicago, IL		Raleigh, NC	\$2,561	\$28.23	\$0.77
<b><u>Shuttle Train*</u></b>					
Wheat	St. Louis, MO	Houston, TX	\$1,820	\$20.06	\$0.55
	Minneapolis, MN	Portland, OR	\$3,763	\$41.48	\$1.13
Corn	Fremont, NE	Houston, TX	\$2,124	\$23.41	\$0.59
	Minneapolis, MN	Portland, OR	\$3,024	\$33.33	\$0.85
Soybeans	Council Bluffs, IA	Houston, TX	\$2,412	\$26.59	\$0.72
	Minneapolis, MN	Portland, OR	\$3,170	\$34.94	\$0.95

\*A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

\*\*Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.upr.com

**Table 8--Tariff rail rates for U.S. bulk grain shipments to Mexico, 2005**

Effective date: 3/06/06

Commodity	Origin State	Border crossing region	Train size	Rate <sup>1</sup>	Rate/metric ton	Rate/bushel**
Wheat	KS	Brownsville, TX	Shuttle	\$2,851	\$29.13	\$0.79
	ND	Eagle Pass, TX	Unit	\$4,086	\$41.75	\$1.14
	OK	El Paso, TX	Shuttle	\$2,235	\$22.84	\$0.62
	OK	El Paso, TX	Unit	\$2,432	\$24.85	\$0.68
	AR	Laredo, TX	Unit	\$2,383	\$24.35	\$0.66
	IL	Laredo, TX	Unit	\$3,188	\$32.57	\$0.89
	MT	Laredo, TX	Shuttle	\$3,980	\$40.67	\$1.11
	TX	Laredo, TX	Shuttle	\$2,165	\$22.12	\$0.60
	MO	Laredo, TX	Shuttle	\$2,731	\$27.90	\$0.76
	WI	Laredo, TX	Unit	\$3,405	\$34.79	\$0.95
Corn	NE	Brownsville, TX	Shuttle	\$3,543	\$36.20	\$0.92
	NE	Brownsville, TX	Unit	\$3623*	\$37.02	\$0.94
	IA	Eagle Pass, TX	Unit	\$3,773	\$38.55	\$0.98
	MO	Eagle Pass, TX	Shuttle	\$3364*	\$34.37	\$0.87
	NE	Eagle Pass, TX	Shuttle	\$3764*	\$38.46	\$0.98
	IA	Laredo, TX	Shuttle	\$3,696	\$37.76	\$0.96
Soybean	IA	Brownsville, TX	Shuttle	\$3,318	\$33.90	\$0.92
	MN	Brownsville, TX	Shuttle	\$3,614	\$36.93	\$1.00
	NE	Brownsville, TX	Shuttle	\$3,127	\$31.95	\$0.87
	NE	Eagle Pass, TX	Shuttle	\$3,203	\$32.73	\$0.89
	IA	Laredo, TX	Unit	\$3,357	\$34.30	\$0.93

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

<sup>1</sup>Rates are based upon published tariff rates for high-capacity rail cars.

\*High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

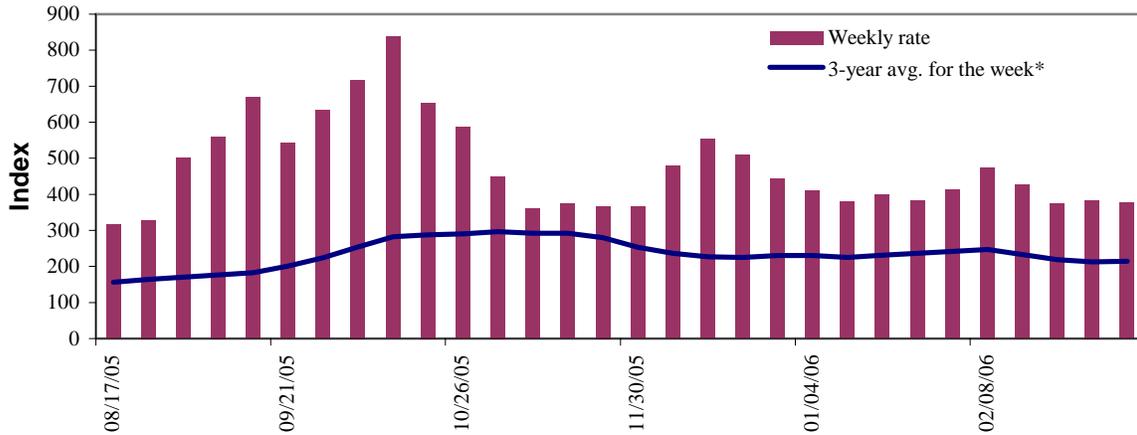
\*\*Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

Sources: www.bnsf.com, www.uprr.com

# Barge Transportation

Figure 5

**Illinois River barge rate index - quotes**



Note: Index = percent of tariff rate; \*4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market bids** are indicators of grain transport supply and demand.

**Table 9--Barge rate quotes: southbound barge freight**

Location	3/8/2006	3/1/2006	April '06	June '06
Twin Cities	n/a	n/a	398	390
Mid-Mississippi	383	383	368	356
Illinois River	377	384	357	348
St. Louis	330	328	305	304
Lower Ohio	344	309	300	303
Cairo-Memphis	297	282	284	286

Index = percent of tariff, based on 1976 tariff benchmark rate

Source: Transportation & Marketing Programs/AMS/USDA

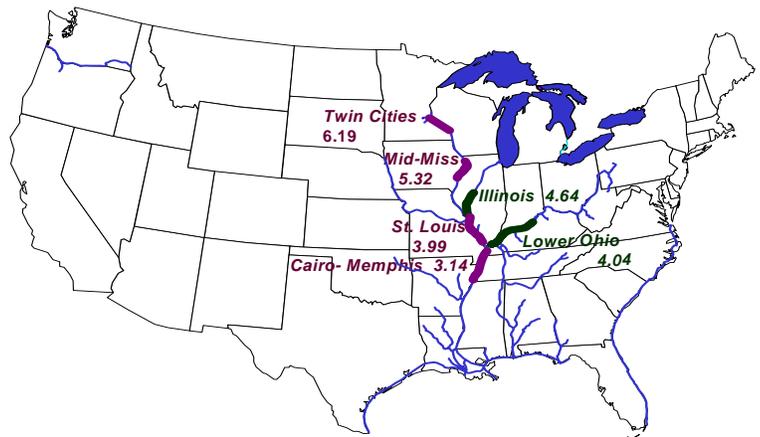
Figure 6

**Benchmark tariff rates**

**Calculating barge rate per ton:**

$(\text{Index} * 1976 \text{ tariff benchmark rate per ton}) / 100$

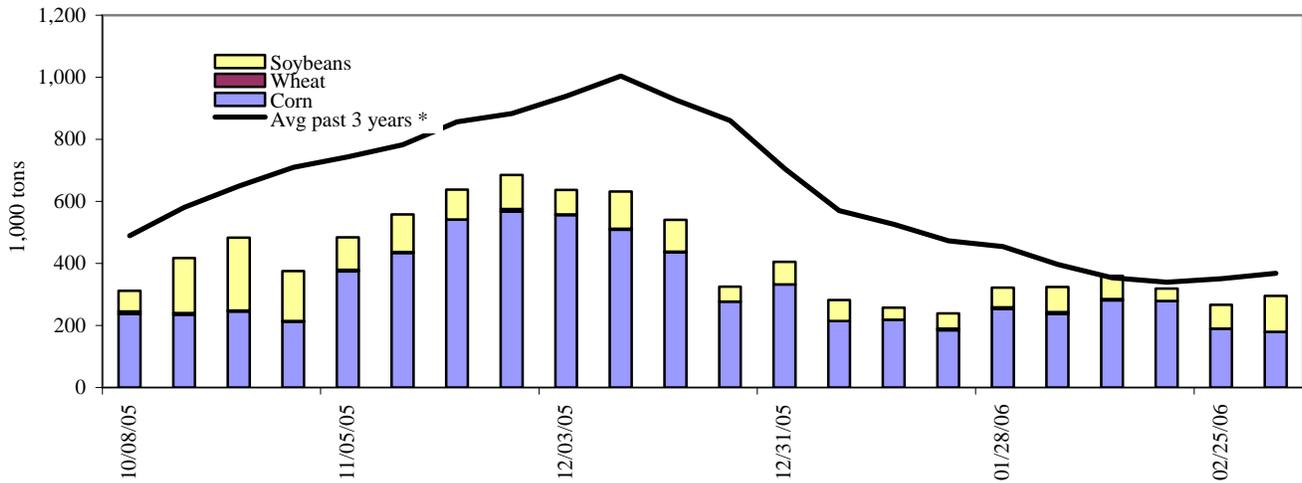
Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).



**Note:** The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam (L&D 8).

Figure 7

**Barge movements on the Mississippi River (Locks 27 - Granite City, IL)**



\* 4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

**Table 10--Barge grain movements (1,000 tons)**

Week ending 3/4/2006	Corn	Wheat	Soybean	Other	Total
<b>Mississippi River</b>					
Rock Island, IL (L15)	0	0	0	0	0
Winfield, MO (L25)	12	0	8	0	20
Alton, IL (L26)	174	0	108	0	282
Granite City, IL (L27)	180	0	115	0	295
<b>Illinois River (L8)</b>	161	9	93	0	263
<b>Ohio River (L52)</b>	116	3	57	0	177
<b>Arkansas River (L1)</b>	0	21	21	10	52
2006 YTD	3,431	190	1,383	183	5,187
2005 YTD	3,057	254	1,732	156	5,199
2006 as % of 2005 YTD	112	75	80	117	100
Total 2005	23,761	1,620	7,276	731	33,388

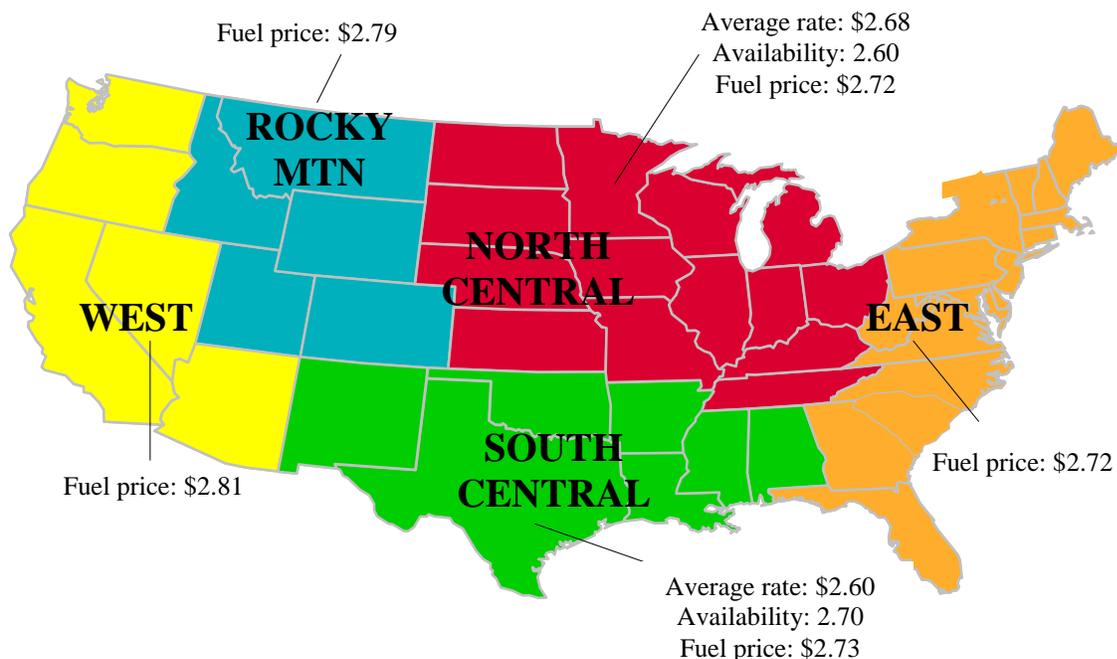
YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

Source: U.S. Army Corp of Engineers ([www.mvr.usace.army.mil/mvrmi/omni/webbrpts/default.asp](http://www.mvr.usace.army.mil/mvrmi/omni/webbrpts/default.asp))

Note: Total may not add exactly, due to rounding

# Truck Transportation

Figure 8  
U.S. grain truck market advisory, 4<sup>th</sup> quarter 2005\*



\*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles

Note: Fuel prices are a quarterly average (unit per gallon)

Fuel price data source: Energy Information Administration, U.S. Department of Energy, [www.eia.doe.gov](http://www.eia.doe.gov)

Table 11--U.S. grain truck market overview, 4<sup>th</sup> quarter 2005

Region	25 miles	100 miles	200 miles	Truck availability	Truck activity	Future truck activity
	<sup>1</sup> Rate per mile			<i>Rating compared to same quarter last year</i>		
				1=Very easy to 5=Very difficult	1=Much lower to 5=Much higher	
<b>National average<sup>2</sup></b>	<b>3.31</b>	<b>2.46</b>	<b>2.26</b>	<b>2.6</b>	<b>2.9</b>	<b>2.9</b>
North Central region	3.23	2.51	2.29	2.6	3.0	3.0
Rocky Mountain	4.58	2.35	1.95	2.8	3.0	3.0
South Central	3.00	2.42	2.39	2.7	2.5	2.7
West	n/a	n/a	n/a	2.0	3.5	3.0

<sup>1</sup>Rates are based on trucks with 80,000 lb gross vehicle weight limit

<sup>2</sup>National average includes: AL, AR, CO, IA, ID, IL, IN, KS, LA, MN, MO, MS, MT, ND, NE, OH, OK, OR, SD, TX, WA, WI, and WY.

Source: Transportation and Marketing Programs/AMS/USDA

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

**Table 12--Retail on-highway diesel prices\*, week ending 3/13/06 (US\$/gallon)**

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	2.567	-0.004	0.370
	New England	2.687	0.031	0.367
	Central Atlantic	2.681	-0.001	0.372
	Lower Atlantic	2.507	-0.009	0.370
II	Midwest <sup>1</sup>	2.491	-0.009	0.351
III	Gulf Coast <sup>2</sup>	2.497	-0.002	0.367
IV	Rocky Mountain	2.566	0.021	0.306
V	West Coast	2.725	0.014	0.283
	California	2.747	0.008	0.329
Total	U.S.	2.543	-0.002	0.349

\*Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy ([www.eia.doe.gov](http://www.eia.doe.gov))

<sup>1</sup>Same as North Central

<sup>2</sup>Same as South Central

# Grain Exports

**Table 13--U.S. export balances (1,000 metric tons)**

Week ending 1/	Wheat						Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR	All wheat			
3/2/2006	1,444	368	1,039	686	174	3,710	9,246	3,134	16,090
This week year ago	1,556	271	1,400	517	107	3,851	6,746	3,662	14,259
Cumulative exports-crop year 2/									
2005/06 YTD	8,548	1,570	5,895	3,236	585	19,834	24,441	16,973	61,248
2004/05 YTD	7,347	2,869	6,085	3,965	481	20,748	23,502	22,116	66,366
2005/06 as % of 2004/05	116	55	97	82	122	96	104	77	92
2004/05 Total	9,407	3,217	8,083	4,773	686	26,117	44,953	29,878	100,948
2003/04 Total	12,697	3,785	6,928	4,895	1,053	29,359	47,704	24,108	101,171

Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31, 1/ = Current unshipped export sales to date

2/ = Shipped export sales to date

Source: Foreign Agricultural Service/USDA ([www.fas.usda.gov](http://www.fas.usda.gov))

Figure 9

**U.S. grain, unshipped export balance, including wheat, corn, and soybean sales**



Source: Foreign Agricultural Service/USDA ([www.fas.usda.gov](http://www.fas.usda.gov))

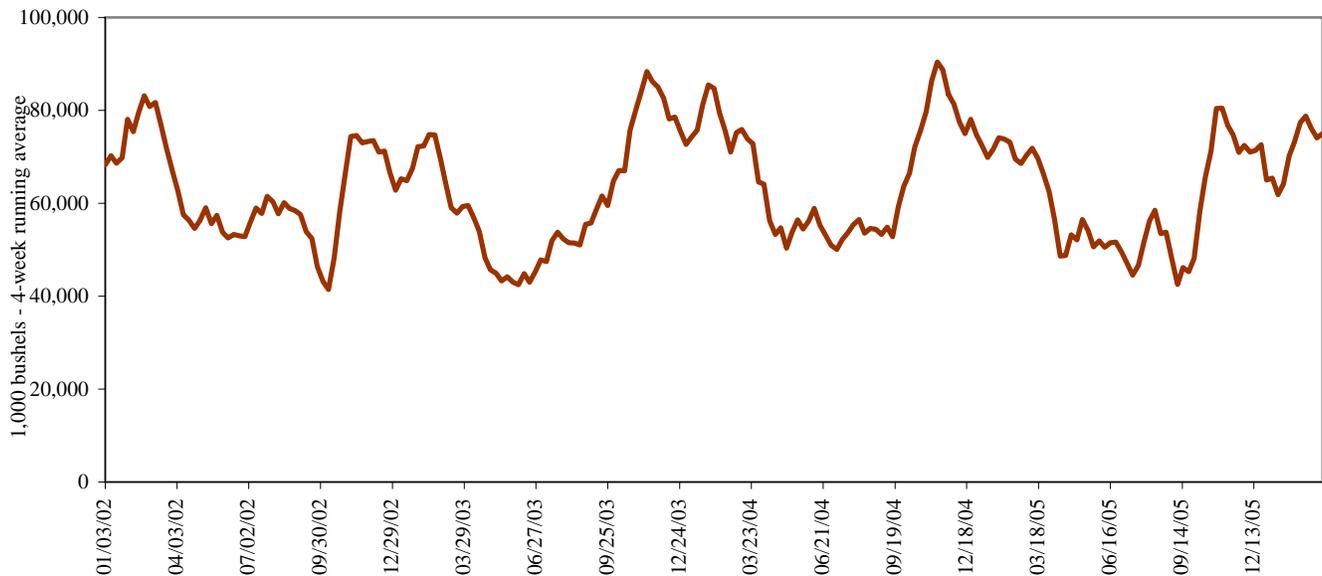
**Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)**

Week ending	Pacific Region			Mississippi Gulf			Texas Gulf			Port Region total		
	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
03/09/06	272	52	175	122	722	529	160	72	5	500	1,372	238
2006 YTD	2,313	1,529	1,390	907	6,774	4,539	1,722	286	15	5,233	12,219	2,023
2005 YTD	2,180	1,672	1,847	1,043	5,377	5,371	1,107	187	6	5,700	11,791	1,300
2006 as % of 2005	106	91	75	87	126	85	156	153	260	92	104	156
2005 Total *	10,801	10,104	6,225	4,643	27,596	14,793	7,743	810	36	27,130	47,032	8,589

Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov); YTD: year-to-date; \*includes weekly revisions

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2004.

Figure 10  
**U.S. grain inspected for export (wheat, corn, and soybeans)**



Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)

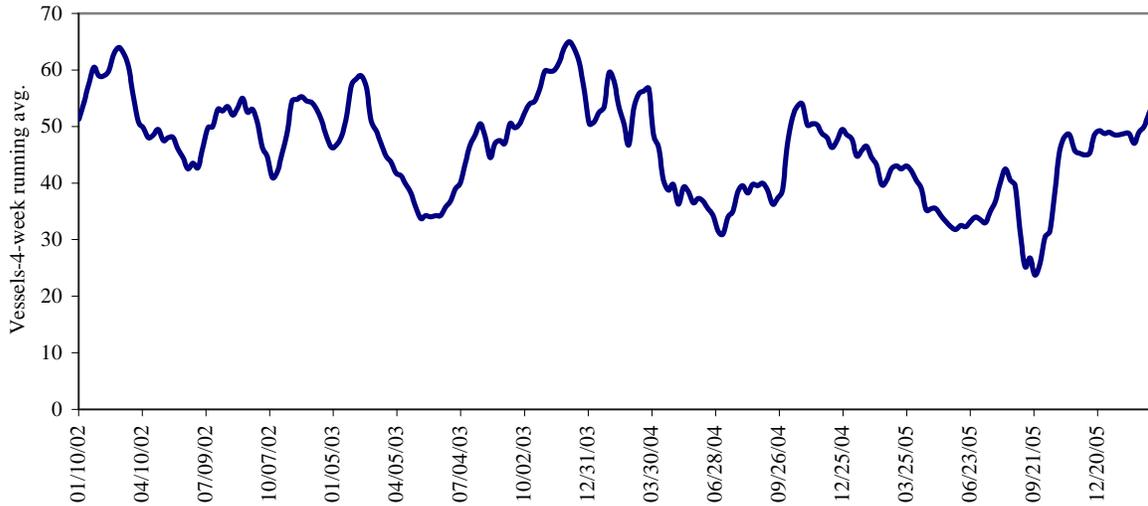
# Ocean Transportation

**Table 15--Weekly port region grain ocean vessel activity (number of vessels)**

Date	Gulf			Pacific Northwest	Vancouver B.C.
	In port	Loaded 7-days	Due next 10-days	In port	In port
3/9/2006	22	54	61	11	7
3/2/2006	36	49	61	11	9
2005 range	(11..57)	(10..56)	(18..76)	(2..16)	(0..17)
2005 avg.	27	39	53	9	7

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11  
**Gulf Port grain vessel loading (past 7 days)**



Source: Transportation & Marketing Programs/AMS/USDA

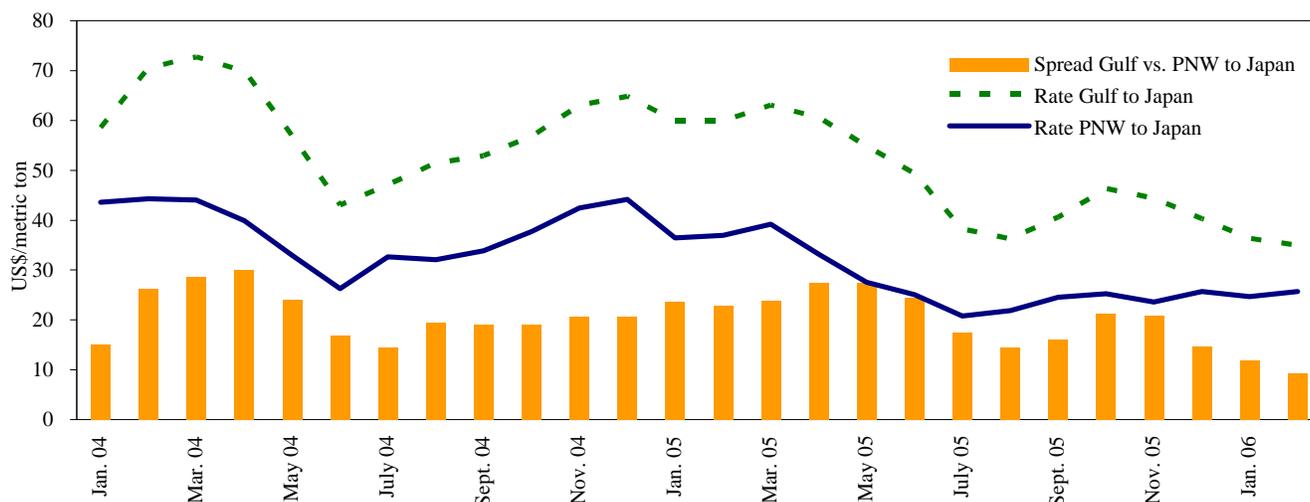
**Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US\$/metric ton)**

Countries/ regions	2005 4 <sup>th</sup> qtr	2004 4 <sup>th</sup> qtr	Percent change	Countries/ regions	2005 4 <sup>th</sup> qtr	2004 4 <sup>th</sup> qtr	Percent change
<b>Gulf to</b>				<b>Pacific NW to</b>			
Japan	46.75	60.83	-23	Japan	---	---	---
China		56.35	---	<b>Argentina/Brazil to</b>			
N. Africa	31.75	---	---	N. Africa	42.67	---	---
Med. Sea	31.75	---	---	Mediterranean	40.20	---	---

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12

**Grain vessel rates, U.S. to Japan**



Source: Baltic Exchange (www.balticexchange.com)

**Table 17--Ocean freight rates for selected shipments, week ending 3/11/06**

Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate (\$/metric ton)
U.S. Gulf	Japan	Hvy Grain	Jan 25/Feb 5	54,000	37.45
U.S. Gulf	China	Hvy Grain	Feb 1/10	55,000	32.00
U.S. Gulf	China	Hvy Grain	Feb 20/28	55,000	31.00
U.S. Gulf	N. China	Hvy Grain	Feb 20/28	55,000	29.75
United Kingdom	Thailand	Wheat	Feb 25/Mar 10	42,000	21.50
PNW	Pakistan*	Soybeans	Feb 16/27	10,000	59.45
PNW	Saudi Arabia	Barley	Feb 1/5	55,000	27.00
Brazil	N. China	Hvy Grain	Feb 10/18	58,000	27.50
Brazil	N. France	Grains	Mar 12/20	25,000	26.00
River Plate	Spain	Grains	Jan 25/Feb 10	45,000	29.00
River Plate	Poland	Grains	Feb 21/26	30,000	36.00

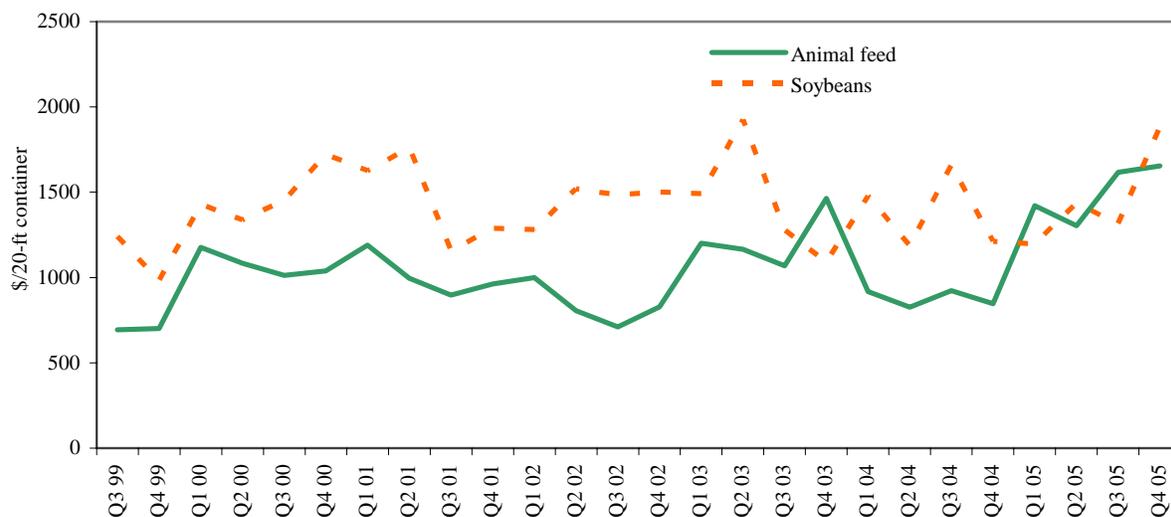
Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

\*75 percent of food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Source: Maritime Research Inc. (www.maritime-research.com)

Figure 13

**Weighted average rates<sup>1</sup> for containerized shipments of animal feed and soybeans to selected Asian countries**



<sup>1</sup>Animal Feed: Busan-Korea (12%), Kaohsiung-Taiwan (34%), Tokyo-Japan (35%), Hong Kong (13%), Bangkok-Thailand (6%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (89%), Tokyo-Japan (8%), Bangkok-Thailand (1%), Hong Kong (1%)

Quarter 4, 2005.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

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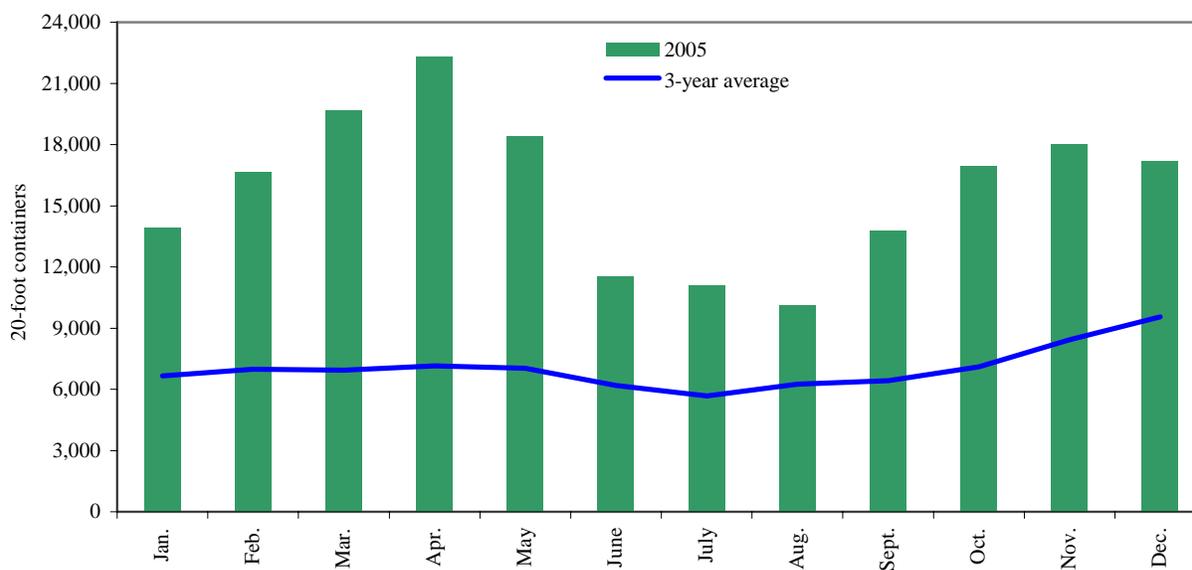
Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

During 2004, containers were used to transport 2 percent of total U.S. grain exported, and 3 percent of total U.S. grain exported to Asia.

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Figure 14

**Monthly shipments of containerized grain to Asia for 2005 compared with a 3-year average**

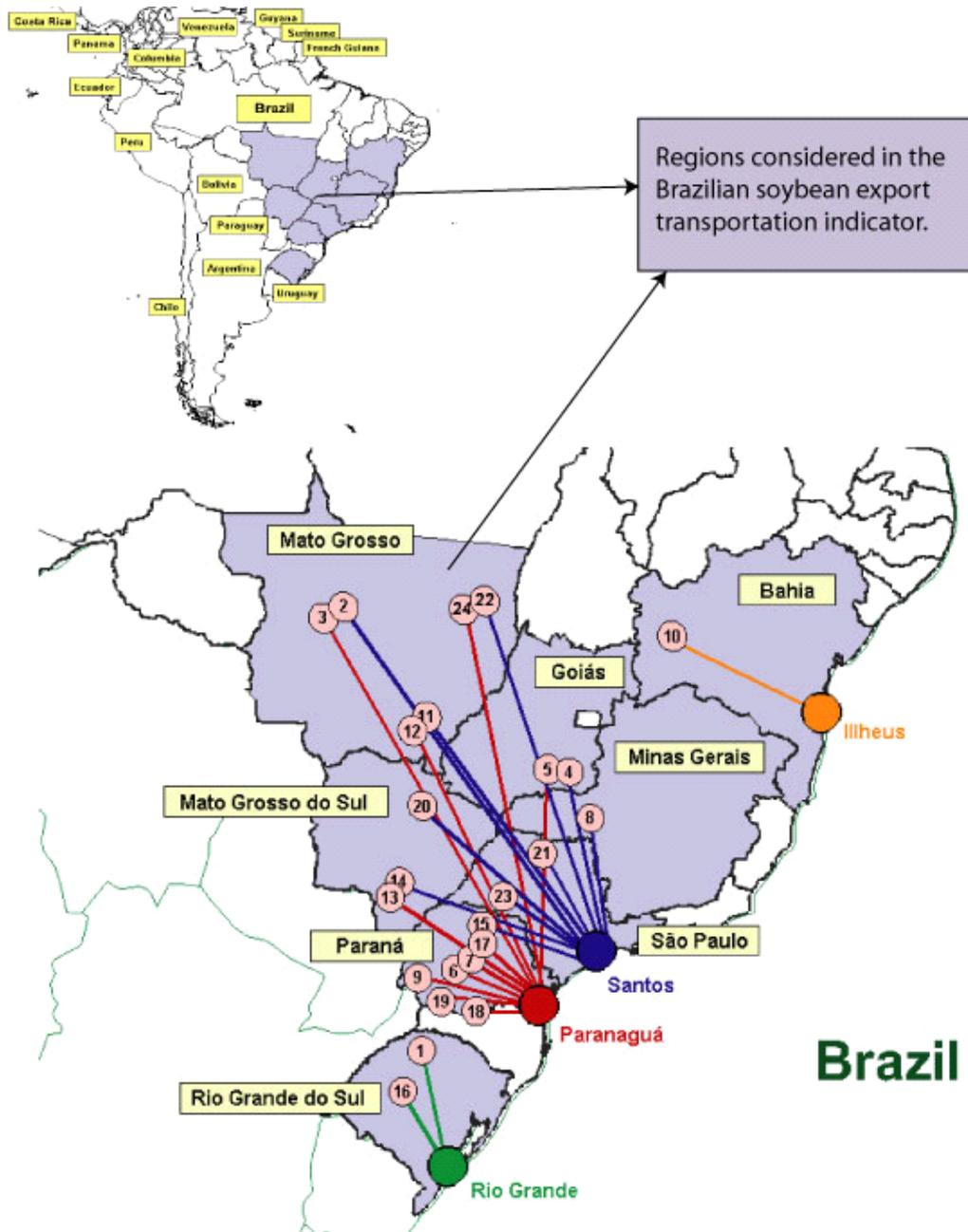


Source: Port Import Export Reporting Service (PIERS), *Journal of Commerce*

Note: PIERS data is available with a lag of approximately 40 days

# Brazil Transportation

Figure 15  
Routes and Regions considered in the Brazilian soybean export transportation indicator<sup>1</sup>



<sup>1</sup>Regions comprised 84 percent of Brazilian soybean production, 2003  
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

**Table 18--Truck rates for selected Brazilian soybean export transportation routes, 4th quarter 2005**

Route #	Origin <sup>1</sup> (reference city)	Destination	Distance (miles) <sup>2</sup>	Weight(%) <sup>3</sup>	Freight price (per 100 miles) <sup>4</sup>
1	Northwest RS <sup>5</sup> (Cruz Alta)	Rio Grande	288	16.6	4.58
2	North MT(Sorriso)	Santos	1190	10.1	6.94
3	North MT(Sorriso)	Paranaguá	1262	9.5	6.41
4	South GO(Rio Verde)	Santos	587	7.0	7.25
5	South GO(Rio Verde)	Paranaguá	726	5.6	5.74
6	North Center PR(Londrina)	Paranaguá	268	4.4	7.93
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	6.41
8	Triangle MG(Uberaba)	Santos	339	3.8	9.98
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	6.34
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	7.87
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	6.97
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	6.22
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	5.79
14	Southwest MS(Maracaju)	Santos	652	2.9	6.24
15	West PR(Assis Chateaubriand)	Santos	550	2.5	5.85
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.74
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	9.17
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	9.96
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	8.67
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	5.62
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	8.27
22	Northeast MT(Canarana)	Santos	950	1.4	7.87
23	Assis SP(Palmital)	Santos	285	1.2	7.85
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	6.96
	<b>Average</b>		<b>626</b>	<b>100</b>	<b>6.64</b>

<sup>1</sup>Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

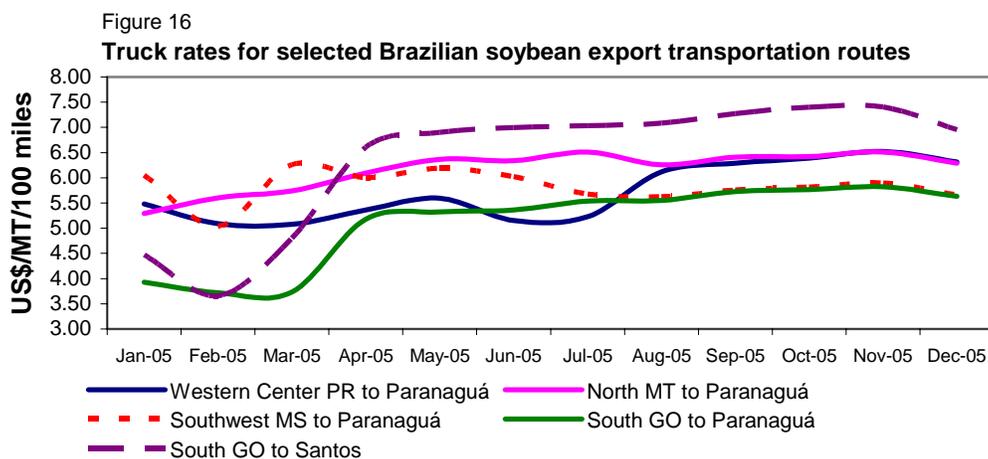
<sup>2</sup>Distance from the main city of the considered region to the mentioned ports

<sup>3</sup>The weight is directly proportional to the amount of production in each region

<sup>4</sup>US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

<sup>5</sup>RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

**Table 19--Monthly Brazilian soybean export truck transportation cost index**

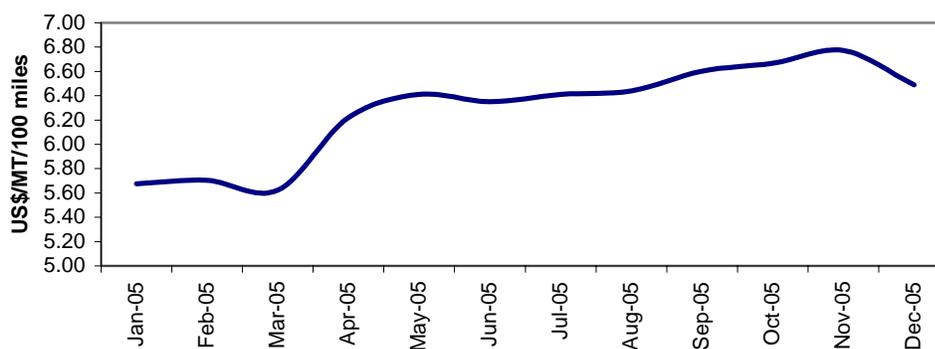
Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan. 05	5.67		100.00
Feb. 05	5.71	0.5	100.54
Mar. 05	5.62	-1.5	99.08
Apr. 05	6.22	10.6	109.61
May 05	6.41	3.1	112.96
Jun. 05	6.35	-0.9	111.90
Jul. 05	6.41	1.0	112.99
Aug. 05	6.44	0.4	113.46
Sep. 05	6.60	2.5	116.36
Oct. 05	6.67	1.0	117.52
Nov. 05	6.77	1.5	119.33
Dec. 05	6.49	-4.2	114.34

\*weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

**Brazilian soybean export truck transportation weighted average prices, 2005**



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

**Table 20--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)\***

Ports	2005 1st qtr	2005 2nd qtr	2005 3rd qtr	2005 4th qtr
Santos	45.53	45.84	44.54	56.73
Paranagua	44.64	44.84**	43.54	55.73
Rio Grande	44.20	44.39	43.04	55.23

\*correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes

Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

\*\*Revised figure

# Contacts and Links

## Contact Information

Coordinator		
Surajudeen (Deen) Olowolayemo	<a href="mailto:surajudeen.olowolayemo@usda.gov">surajudeen.olowolayemo@usda.gov</a>	(202) 690-1328
Ethel Mitchell	<a href="mailto:ethel.mitchell@usda.gov">ethel.mitchell@usda.gov</a>	(202) 720-1378
Grain Transportation Indicators		
Surajudeen (Deen) Olowolayemo	<a href="mailto:surajudeen.olowolayemo@usda.gov">surajudeen.olowolayemo@usda.gov</a>	(202) 690-1328
Rail		
Marvin Prater	<a href="mailto:marvin.prater@usda.gov">marvin.prater@usda.gov</a>	(202) 690-6290
Johnny Hill	<a href="mailto:johnny.hill@usda.gov">johnny.hill@usda.gov</a>	(202) 720-4211
Barge Transportation		
Karl Hacker	<a href="mailto:karl.hacker@usda.gov">karl.hacker@usda.gov</a>	(202) 690-0152
Nicholas Marathon	<a href="mailto:nick.marathon@usda.gov">nick.marathon@usda.gov</a>	(202) 690-0331
Truck Transportation		
Karl Hacker	<a href="mailto:karl.hacker@usda.gov">karl.hacker@usda.gov</a>	(202) 690-0152
Grain Exports		
Johnny Hill	<a href="mailto:johnny.hill@usda.gov">johnny.hill@usda.gov</a>	(202) 720-4211
Ocean Transportation		
Surajudeen (Deen) Olowolayemo (Freight rates and vessels)	<a href="mailto:surajudeen.olowolayemo@usda.gov">surajudeen.olowolayemo@usda.gov</a>	(202) 690-1328
April Taylor (Container rates)	<a href="mailto:april.taylor@usda.gov">april.taylor@usda.gov</a>	(202) 690-1326

**Subscription Information:** To subscribe to the GTR for a weekly email copy, please contact Deen Olowolayemo at [surajudeen.olowolayemo@usda.gov](mailto:surajudeen.olowolayemo@usda.gov) or 202-690-1328 (1303) (*printed copies are also available upon request*).

## Related Websites

*Agricultural Container Indicators*  
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