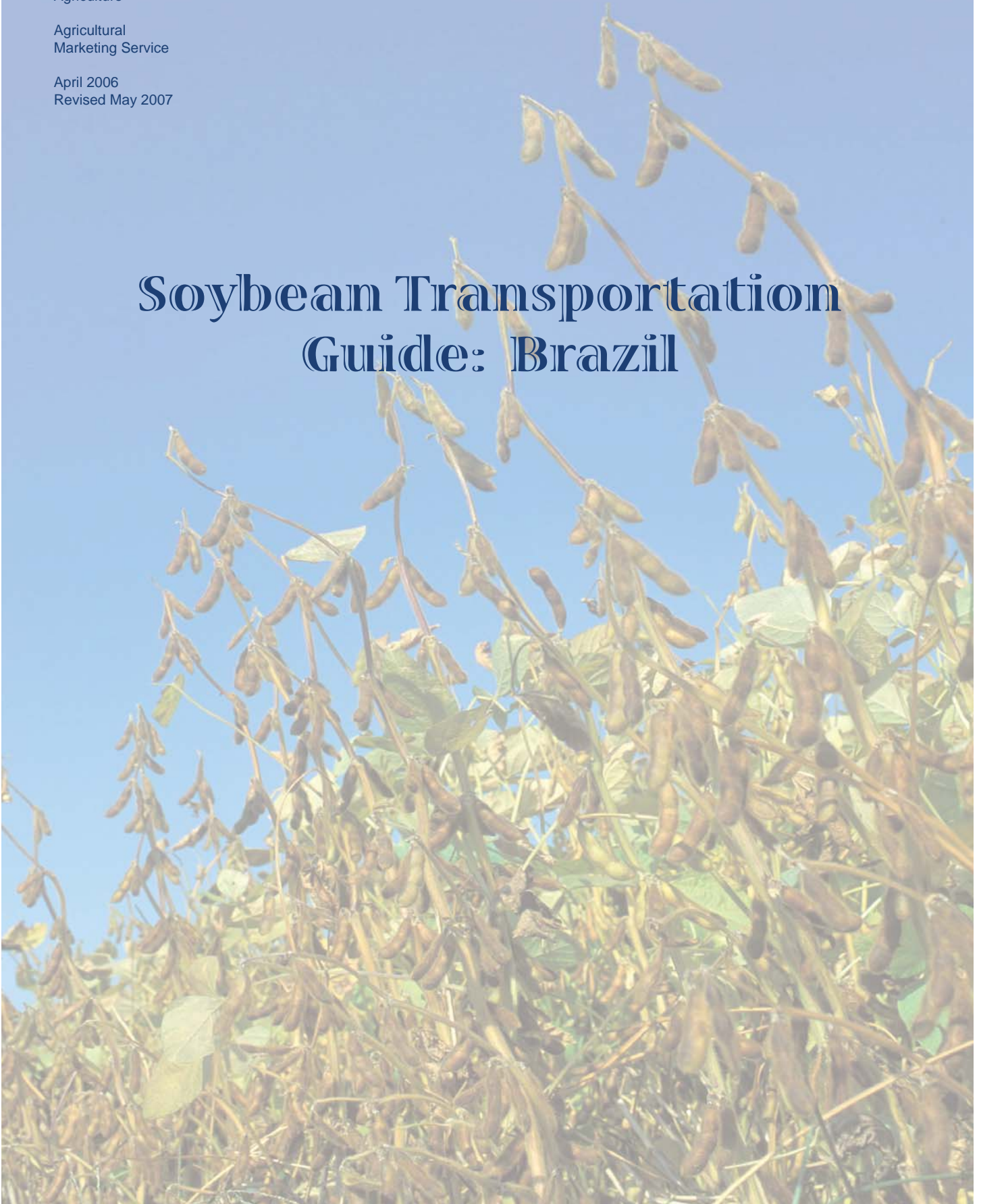


United States  
Department of  
Agriculture

Agricultural  
Marketing Service

April 2006  
Revised May 2007

# Soybean Transportation Guide: Brazil



United States Department of Agriculture  
Marketing and Regulatory Programs  
Agricultural Marketing Service  
Transportation and Marketing Programs

April 2006  
Revised May 2007

Authors:  
Delmy L. Salin  
Jessica E. Faust

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# Soybean Transportation Guide: Brazil

## Introduction

Brazil is the second largest soybean exporter after the United States and one of the most important U.S. competitors in the world oilseeds market. Transportation infrastructure and cost are key aspects of Brazil's competitiveness in the world market. The Soybean Transportation Guide is a visual snapshot of Brazilian soybean transportation in 2006. It provides data on the cost of shipping soybeans via highways and ships to Shanghai, China and Hamburg, Germany, as well as information about soybean production, exporting, railways, and ports.

From 2005 to 2006, the cost of transporting soybeans to Hamburg, Germany decreased from Paraná (PR) and Mato Grosso (MT) but increased from South Goiás (GO) and Rio Grande do Sul (RS). In U.S. dollar terms, total shipping costs have increased. However, due to the appreciation of the real, some areas of Brazil have seen proportionately smaller increases or even a decline in shipping costs because appreciation of the real means lower transportation costs for Brazilian shippers. During the year, the real appreciated 10.63 percent, from 2.4360 to 2.1771 reals per U.S. dollar. This, combined with an increased soybean demand from China, put pressure on international transportation rates that could translate into higher shipping costs for U.S. exporters.

The 2006 Brazilian soybean transportation cost index rose 11 percent over the previous year. The cost of shipping a metric ton (mt) of soybeans 100 miles by truck rose from \$6.28 in 2005 to \$6.96 in 2006. The rise was due to a jump in fuel costs and increased exports to China.

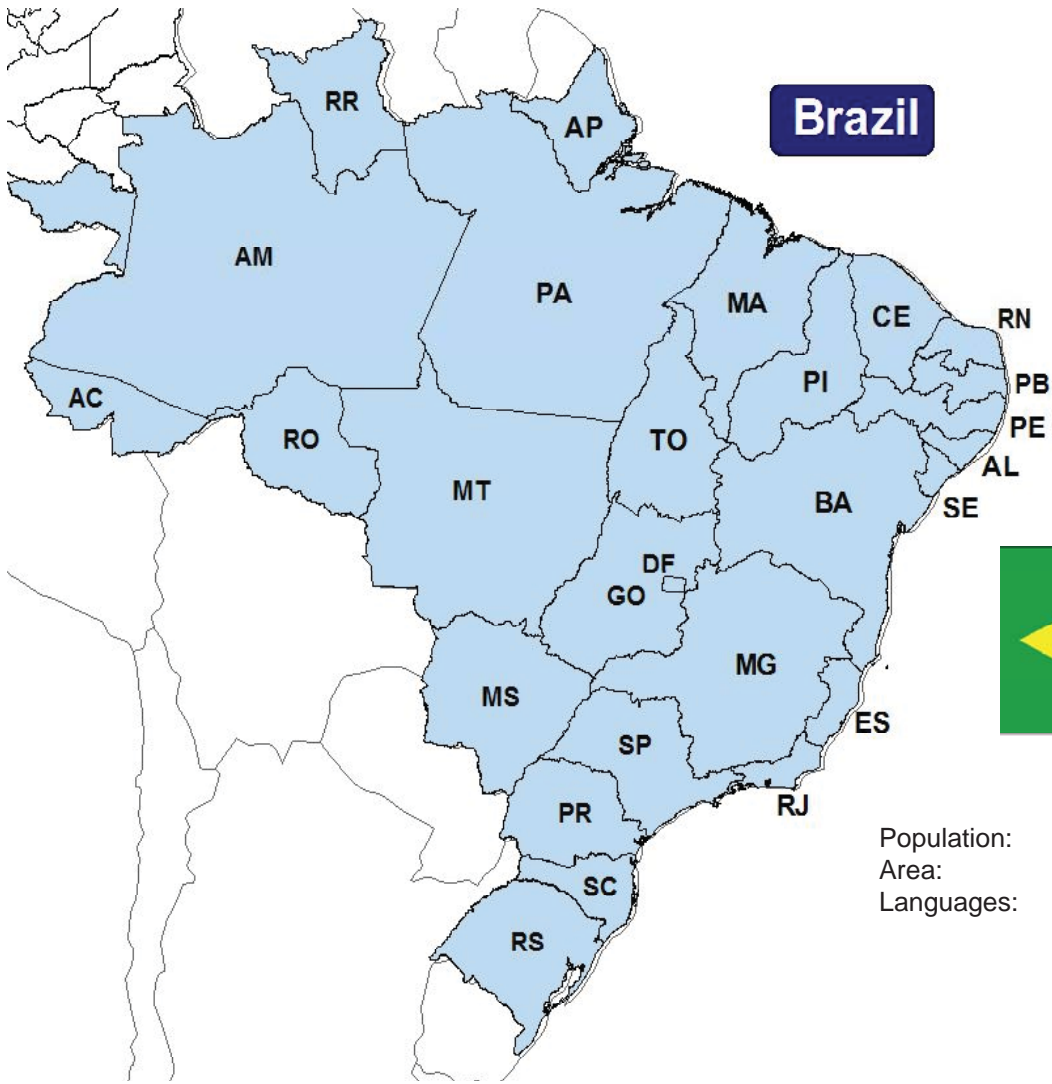
Ocean rates from the port of Santos to Shanghai declined from \$50.13/mt to \$44.80/mt early in 2006 but later rose, ending the year at \$73.32/mt., 46 percent higher than at the beginning of the year. Ocean rates to Hamburg followed the same trend. An increase in fuel costs, a rise in shipments to China, and a tight supply of bulk vessels all contributed to the higher costs. Transportation costs represent more than 40 percent of the total landed costs of shipping soybeans from Sorriso, North MT (the largest Brazilian soybean-producing state), to Shanghai and Hamburg through the ports of Santos and Paranaguá.

In 2006, the cost of shipping soybeans from Minneapolis, MN, and Davenport, IA, to Hamburg and Shanghai followed the same trend as Brazil. Truck and barge rates increased while ocean rates declined. Transportation costs were 22 percent of the total landed costs of shipping soybeans from Davenport, IA (the largest soybean-producing state), to Hamburg through the U.S. Gulf, and 27 percent to Shanghai.

2006 farm prices declined almost 11 percent from 2005 in MT and RS, and about 10 percent in PR. In April 2006, Brazilian farmers blocked roads in MT, PR, and RS, demanding price guarantees for their crop. Farmers claimed the Government minimum price did not cover their production costs and wasn't enough to alleviate their indebtedness, which was exacerbated by the strong real and by high production and transportation costs. By the middle of May, the Brazilian Federal Government announced a subsidy of 1 billion reals (\$470 million) for emergency aid for soybean farmers.

## Acknowledgments

The authors would like to acknowledge João Paulo de Moraes Filho for providing regional information and maps of Brazil. Comments and critiques by David Stalling, Keith Menzie, Allen Baker, Mark Ash, Morgan Perkins, and Sergio Barros are greatly appreciated. The authors would also like to thank Michael D. Smith, our editor. Finally, the authors would like to acknowledge Barbara C. Robinson for providing the resources which enable the publication of this report.



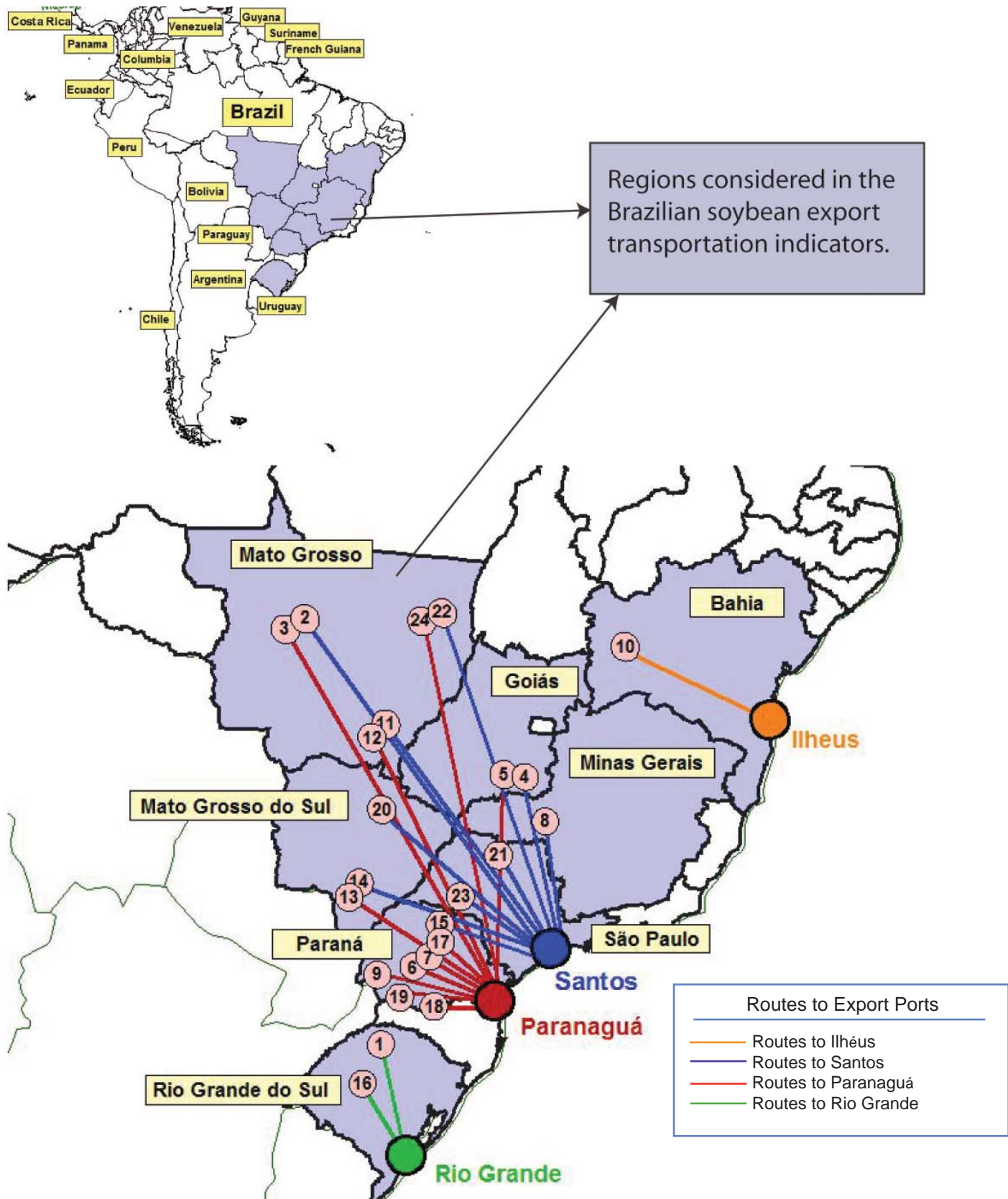
**Brazil**



Population: 188,078,227  
 Area: 8,511,965 sq km  
 Languages: Portuguese (official), Spanish, English, French

State and Abbreviation	
Acre (AC)	Paraíba (PB)
Alagoas (AL)	Paraná (PR)
Amapá (AP)	Pernambuco (PE)
Amazonas (AM)	Piauí (PI)
Bahia (BA)	Rio de Janeiro (RJ)
Ceará (CE)	Rio Grande do Norte (RN)
Distrito Federal (DF)	Rio Grande do Sul (RS)
Espírito Santo (ES)	Rondônia (RO)
Goiás (GO)	Roraima (RR)
Maranhão (MA)	Santa Catarina (SC)
Mato Grosso (MT)	São Paulo (SP)
Mato Grosso do Sul (MS)	Sergipe (SE)
Minas Gerais (MG)	Tocantins (TO)
Pará (PA)	

Routes<sup>1</sup> and regions considered in the Brazilian soybean export transportation indicator<sup>2</sup>



<sup>1</sup>Table defining routes by number is shown on page 8 of this document  
<sup>2</sup>Regions comprised about 82 percent of Brazilian soybean production, 2005  
 Source: USDA/AMS & ESALQ - University of São Paulo (USP), Brazil

Total 2006 Brazilian soybean transportation costs to Hamburg, Germany, decreased in Paraná (PR) and Mato Grosso (MT) but increased in South Goiás (GO) and Rio Grande do Sul (RS) compared with 2005.

Cost of transporting soybeans from Brazil to Hamburg, Germany						
	2005	2006	Percent Change	2005	2006	Percent Change
	--US\$/mt--			--US\$/mt--		
	<b>Northwest RS<sup>1</sup> - Rio Grande<sup>2</sup></b>			<b>North MT<sup>1</sup> - Paranaguá<sup>2</sup></b>		
Truck	12.84	16.16	25.83	77.64	78.05	0.53
Ocean	46.72	45.03	-3.61	47.19	45.76	-3.02
Total transportation	59.55	61.18	2.74	124.84	123.81	-0.82
Farm Value <sup>3</sup>	208.35	210.34	0.96	163.97	164.88	0.56
Landed Cost	267.90	271.53	1.35	288.81	288.70	-0.04
Transport % of landed cost	22.2	22.3	0.4	43.3	43.0	-0.7
	<b>South GO<sup>1</sup> - Santos<sup>2</sup></b>			<b>North Center PR<sup>1</sup> - Paranaguá<sup>2</sup></b>		
Truck	37.59	43.56	15.89	21.52	21.31	-0.99
Ocean	48.16	46.76	-2.90	47.19	45.76	-3.02
Total transportation	85.75	90.32	5.34	68.71	67.07	-2.38
Farm Value <sup>3</sup>	181.92	189.63	4.24	210.24	213.81	1.70
Landed Cost	267.66	279.96	4.59	278.95	280.88	0.69
Transport % of landed cost	31.9	32.2	0.8	24.6	23.8	-3.5

<sup>1</sup>Producing regions: RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná

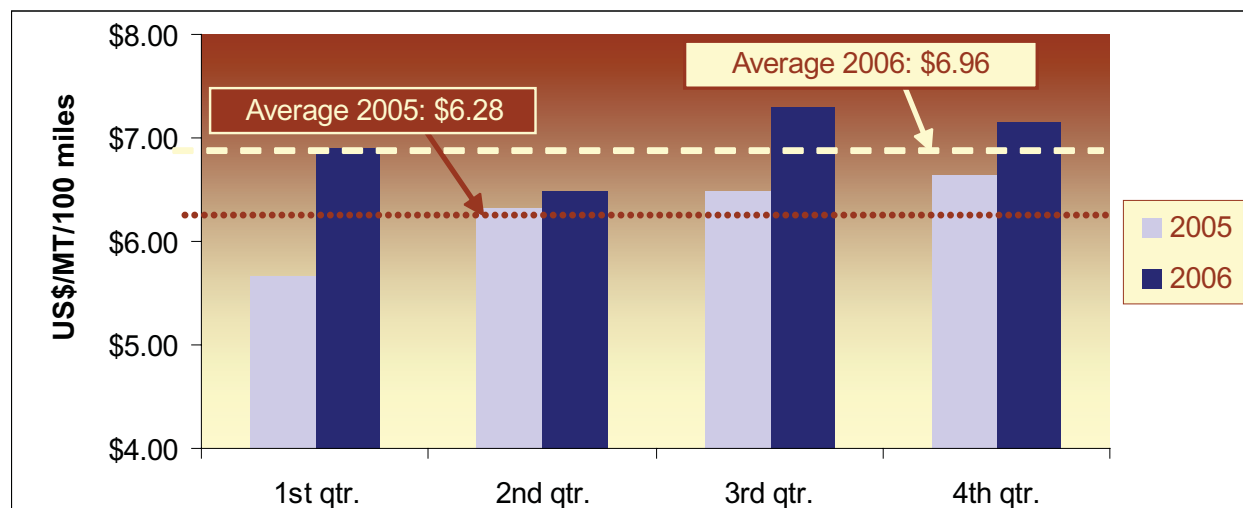
<sup>2</sup>Export ports

<sup>3</sup>Source: Companhia Nacional de Abastecimento (CONAB)

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

The Brazilian soybean export transportation cost index increased about 11 percent in 2006. The cost of shipping a metric ton (mt) of soybeans 100 miles by truck increased from \$6.28 in 2005 to \$6.96 in 2006.

**Brazilian soybean export truck cost index**

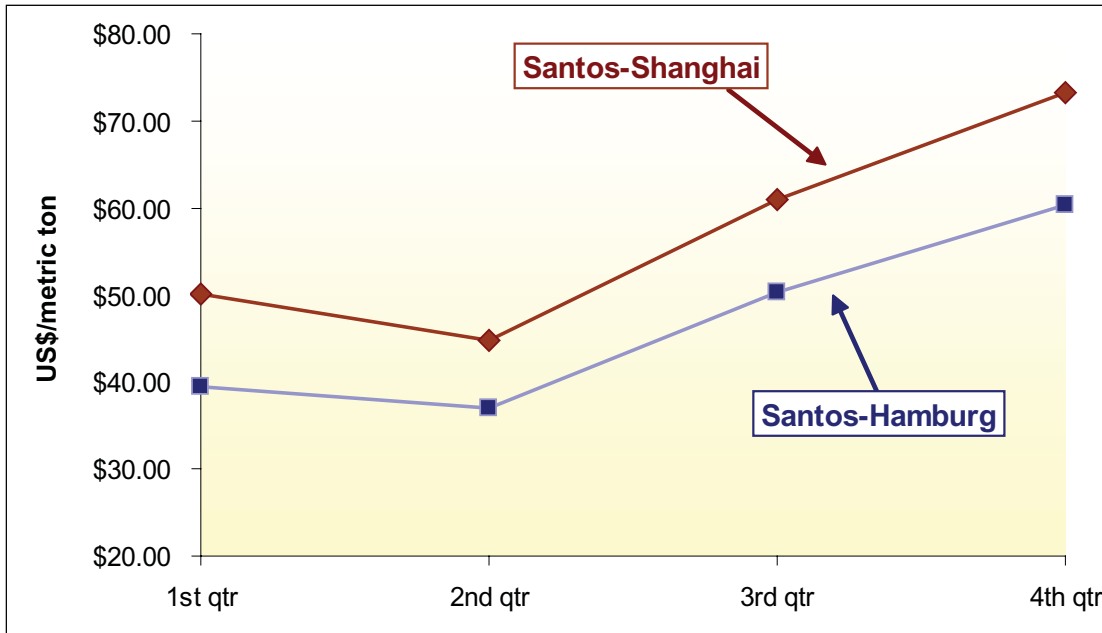


Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

# 2006 Summary

In 2006, ocean rates from the port of Santos to Shanghai, China, declined to \$44.80/mt early in the year but later rose, ending the year 46 percent higher, at \$73.32/mt. Ocean rates to Hamburg followed the same trend.

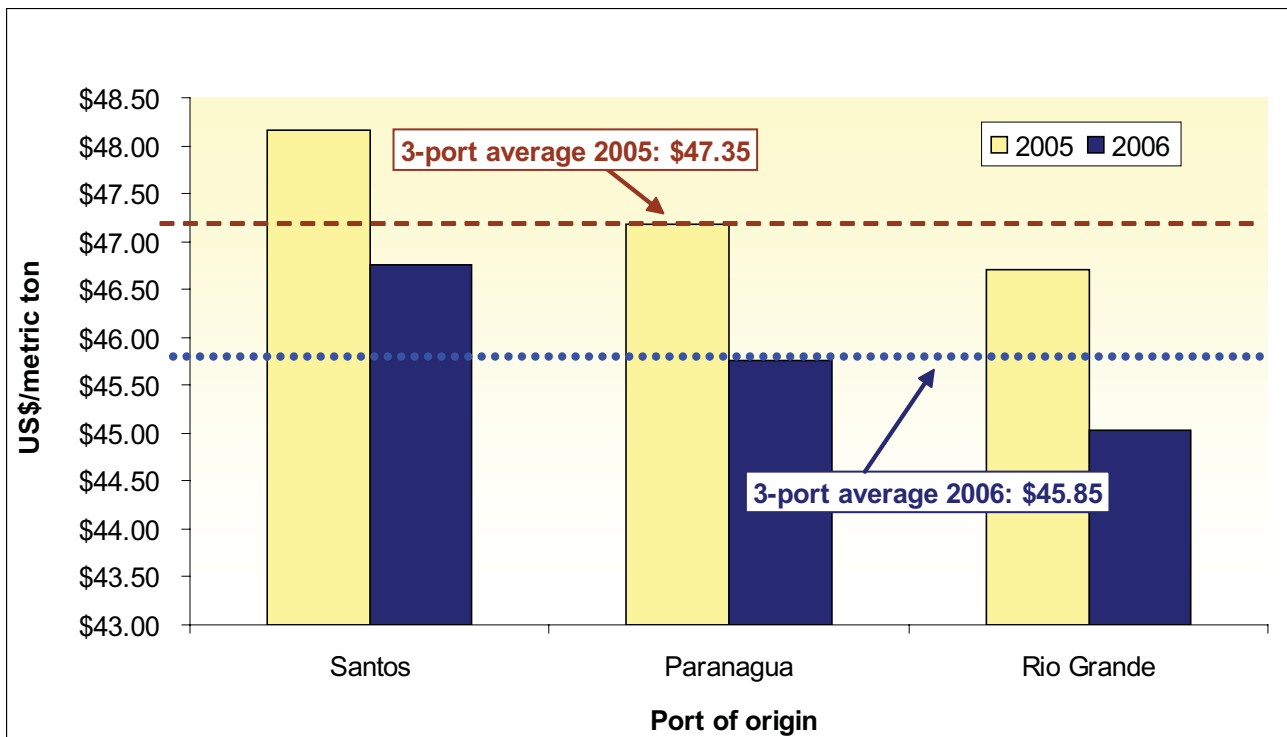
**Brazilian soybean ocean freight from Santos to Shanghai and Hamburg, 2006**



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

The cost to ship 1 mt of soybean from Brazil to Hamburg by ocean going vessel decreased on average 3 percent, from \$47.35/mt to \$45.85/mt, compared with 2005.

**Ocean rates from Brazil to Hamburg declined in 2006**

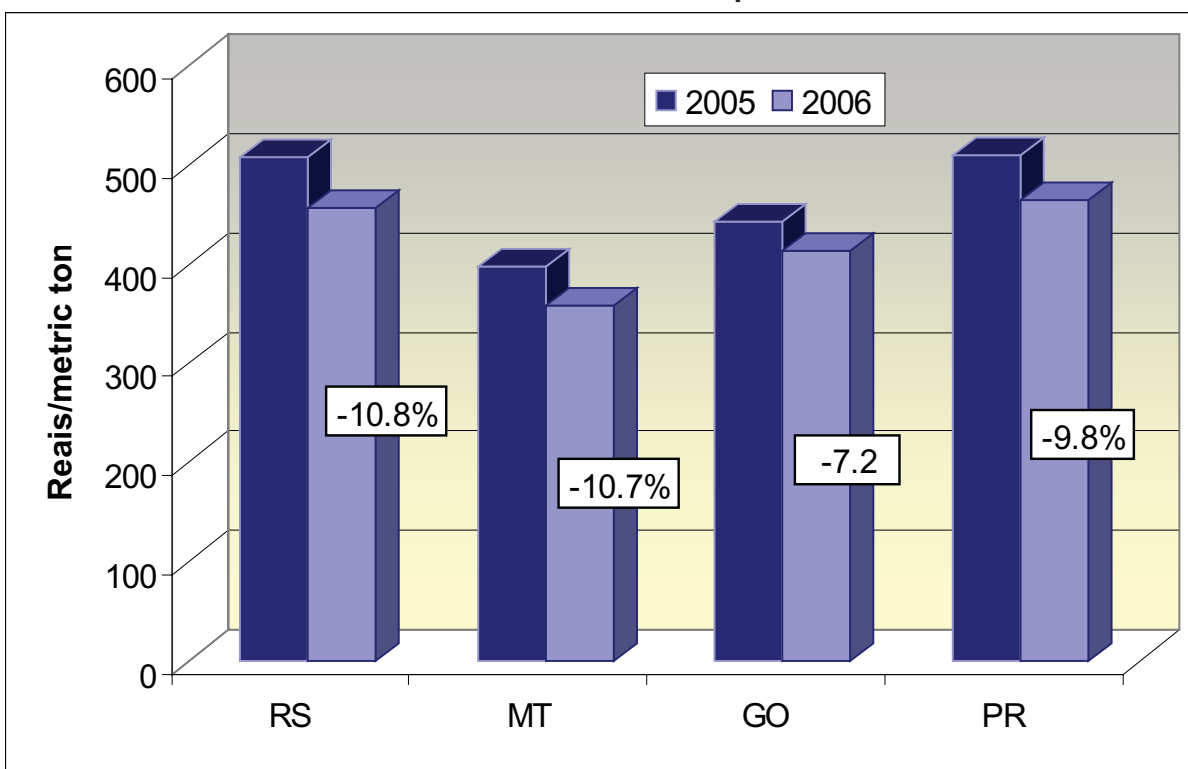


Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS



Farm prices declined almost 11 percent in Mato Grosso (MT) and Rio Grande do Sul (RS) in 2006 compared with 2005.

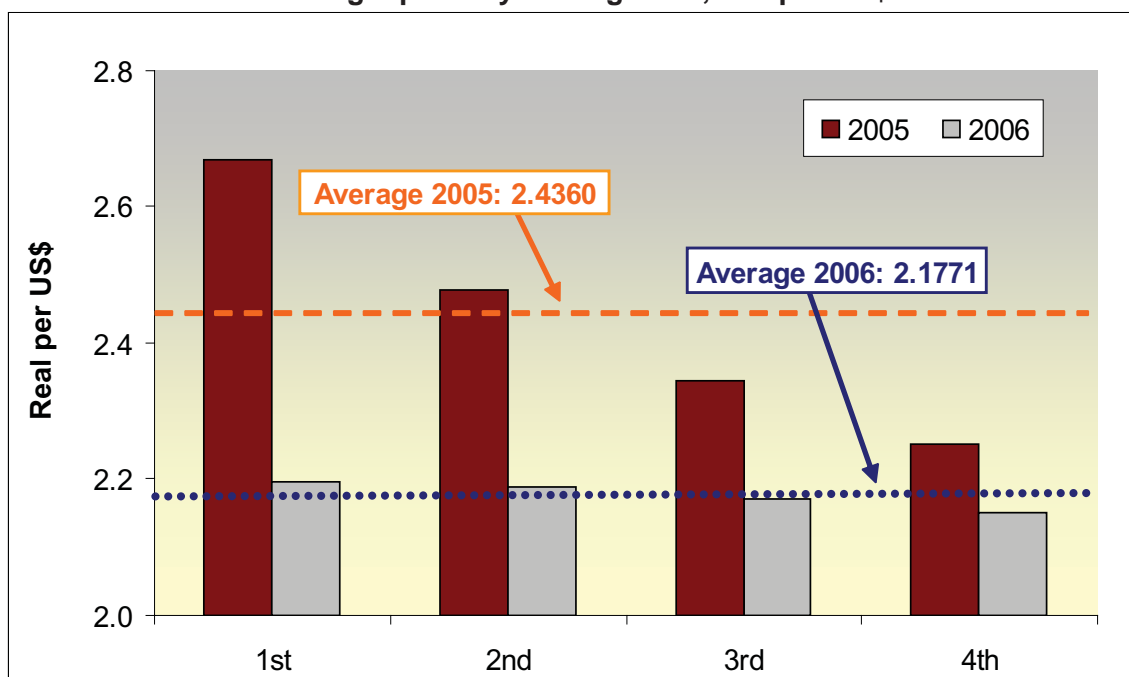
Selected Brazilian farm prices



RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná  
 Source: Companhia Nacional de Abastecimento (CONAB)

In 2006, the real appreciated 10.63 percent against the US\$ compared with 2005, from 2.4360 to 2.1771 reais per 1 US\$.

Average quarterly exchange rate, real per US\$



Source: Banco Central do Brasil

# Transportation Indicators

Quarterly costs of transporting soybeans from Brazil to Shanghai, China										
	2006					2006				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	<b>North MT<sup>1</sup> - Santos<sup>2</sup></b> --US\$/mt--					<b>North MT<sup>1</sup> - Paranagua<sup>2</sup></b> --US\$/mt--				
Truck	86.22	79.20	76.55	75.86	79.46	84.65	81.63	73.03	72.88	78.05
Ocean	50.13	44.80	60.98	73.32	57.31	49.13	43.80	59.98	72.32	56.31
Total transportation	136.36	124.00	137.54	149.18	136.77	133.78	125.43	133.02	145.20	134.36
Farm Value <sup>3</sup>	157.86	150.72	161.30	189.65	164.88	157.86	150.72	161.30	189.65	164.88
Landed Cost	294.22	274.71	298.84	338.84	301.65	291.65	276.15	294.32	334.86	299.24
Transport % of landed cost	46.4	45.1	46.0	44.0	45.4	45.9	45.4	45.2	43.4	45.0
	<b>Southeast MT<sup>1</sup> - Santos<sup>2</sup></b> --US\$/mt--					<b>North Center PR<sup>1</sup> - Paranagua<sup>2</sup></b> --US\$/mt--				
Truck	65.24	58.78	53.56	52.66	57.56	19.41	20.43	25.23	20.16	21.31
Ocean	50.13	44.80	60.98	73.32	57.31	49.13	43.80	59.98	72.32	56.31
Total transportation	115.37	103.58	114.54	125.98	114.87	68.54	64.23	85.22	92.48	77.62
Farm Value <sup>3</sup>	157.86	150.72	161.30	189.65	164.88	206.88	194.83	211.06	242.47	213.81
Landed Cost	273.24	254.30	275.85	315.64	279.75	275.42	259.05	296.27	334.96	291.43
Transport % of landed cost	42.2	40.7	41.5	39.9	41.1	24.9	24.8	28.8	27.6	26.5
	<b>South GO<sup>1</sup> - Santos<sup>2</sup></b> --US\$/mt--					<b>Northwest RS<sup>1</sup> - Rio Grande<sup>2</sup></b> --US\$/mt--				
Truck	42.49	41.40	46.54	43.81	43.56	13.54	11.74	18.72	20.63	16.16
Ocean	50.13	44.80	60.98	73.32	57.31	48.63	43.30	59.48	71.82	55.81
Total transportation	92.62	86.20	107.52	117.13	100.87	62.17	55.04	78.20	92.45	71.97
Farm Value <sup>3</sup>	180.71	175.49	185.73	216.60	189.63	202.56	198.03	207.37	233.43	210.34
Landed Cost	273.33	261.69	293.25	333.74	290.50	264.73	253.06	285.57	325.88	282.31
Transport % of landed cost	33.9	32.9	36.7	35.1	34.7	23.5	21.8	27.4	28.4	25.3

<sup>1</sup>Producing regions: RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná

<sup>2</sup>Export ports

<sup>3</sup>Source: Companhia Nacional de Abastecimento (CONAB)

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

# Transportation Indicators

Quarterly costs of transporting soybeans from Brazil to Hamburg, Germany										
	2006					2006				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	<b>North MT<sup>1</sup> - Santos<sup>2</sup></b> --US\$/mt--					<b>North MT<sup>1</sup> - Paranagua<sup>2</sup></b> --US\$/mt--				
Truck	86.22	79.20	76.55	75.86	79.46	84.65	81.63	73.03	72.88	78.05
Ocean	39.51	36.91	50.24	60.40	46.76	38.51	35.91	49.24	59.40	45.76
Total transportation	125.73	116.11	126.79	136.26	126.22	123.16	117.54	122.27	132.28	123.81
Farm Value <sup>3</sup>	157.86	150.72	161.30	189.65	164.88	157.86	150.72	161.30	189.65	164.88
Landed Cost	283.60	266.83	288.09	325.92	291.11	218.02	268.26	283.57	321.94	288.70
Transport % of landed cost	44.3	43.5	44.0	41.8	43.4	43.8	43.8	43.1	41.1	43.0
	<b>Southeast MT<sup>1</sup> - Santos<sup>2</sup></b> --US\$/mt--					<b>North Center PR<sup>1</sup> - Paranagua<sup>2</sup></b> --US\$/mt--				
Truck	65.24	58.78	53.56	52.66	57.56	19.41	20.43	25.23	20.16	21.31
Ocean	39.51	36.91	50.24	60.40	46.76	38.51	35.91	49.24	59.40	45.76
Total transportation	104.75	95.69	103.80	113.06	104.33	57.92	56.34	74.47	79.56	67.07
Farm Value <sup>3</sup>	157.86	150.72	161.30	189.65	164.88	206.88	194.83	211.06	242.47	213.81
Landed Cost	262.61	246.41	265.10	302.72	269.21	264.79	251.16	285.53	322.04	280.88
Transport % of landed cost	39.9	38.8	39.2	37.4	38.8	21.9	22.4	26.1	24.7	23.8
	<b>South GO<sup>1</sup> - Santos<sup>2</sup></b> --US\$/mt--					<b>Northwest RS<sup>1</sup> - Rio Grande<sup>2</sup></b> --US\$/mt--				
Truck	42.49	41.40	46.54	43.81	43.56	13.54	11.74	18.72	20.63	16.16
Ocean	39.51	36.91	50.24	60.40	46.76	37.06	35.41	48.74	58.90	45.03
Total transportation	82.00	78.31	96.78	104.21	90.32	50.60	47.15	67.46	79.53	61.18
Farm Value <sup>3</sup>	180.71	175.49	185.73	216.60	189.63	202.56	198.03	207.37	233.43	210.34
Landed Cost	262.71	253.80	282.51	320.82	279.96	253.16	245.17	274.82	312.96	271.53
Transport % of landed cost	31.2	30.9	34.3	32.5	32.2	20.0	19.2	24.6	25.4	22.3

<sup>1</sup>Producing regions: RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná

<sup>2</sup>Export ports

<sup>3</sup>Source: Companhia Nacional de Abastecimento (CONAB)

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

# Transportation Indicators

Truck rates for selected Brazilian soybean export transportation routes, 2006

Route #	Origin <sup>1</sup> (reference city)	Destination	Distance (miles) <sup>2</sup>	Share (%) <sup>3</sup>	Quarterly Freight Price (US\$)				Avg 2006	Avg 2005
					1st -----	2nd (per 100 miles) <sup>4</sup> -----	3rd	4th		
1	Northwest RS <sup>5</sup> (Cruz Alta)	Rio Grande	288	16.6	4.70	4.08	6.50	7.16	5.61	4.46
2	North MT (Sorriso)	Santos	1190	10.1	7.25	6.66	6.43	6.37	6.68	6.65
3	North MT (Sorriso)	Paranaguá	1262	9.5	6.71	6.47	5.79	5.78	6.18	6.15
4	South GO (Rio Verde)	Santos	587	7.0	7.24	7.05	7.93	7.46	7.42	6.40
5	South GO (Rio Verde)	Paranaguá	726	5.6	5.94	5.20	6.26	5.72	5.78	5.11
6	North Center PR (Londrina)	Paranaguá	268	4.4	7.24	7.62	9.42	7.52	7.95	8.03
7	Western Center PR (Mamborê)	Paranaguá	311	3.9	6.57	4.82	7.77	7.57	6.68	5.72
8	Triangle MG (Uberaba)	Santos	339	3.8	10.01	10.29	10.31	10.60	10.30	9.48
9	West PR (Assis Chateaubriand)	Paranaguá	377	3.7	6.30	6.69	7.38	6.67	6.76	5.82
10	West Extreme BA (São Desidério)	Ilhéus	544	3.6	8.07	6.91	9.08	8.27	8.08	7.28
11	Southeast MT (Primavera do Leste)	Santos	901	3.6	7.24	6.52	5.94	5.84	6.39	6.54
12	Southeast MT (Primavera do Leste)	Paranaguá	975	3.3	6.48	6.35	5.53	5.43	5.95	6.06
13	Southwest MS (Maracaju)	Paranaguá	612	3.1	7.58	9.02	8.68	7.38	8.16	5.83
14	Southwest MS (Maracaju)	Santos	652	2.9	9.48	7.44	7.41	7.67	8.00	6.01
15	West PR (Assis Chateaubriand)	Santos	550	2.5	6.00	5.82	7.83	9.14	7.20	5.84
16	Western Center RS (Tupanciretã)	Rio Grande	273	2.4	5.86	5.83	6.86	7.08	6.41	--na--
17	Southwest PR (Chopinzinho)	Paranaguá	291	2.3	9.40	8.93	7.10	8.72	8.54	--na--
18	Eastern Center PR (Castro)	Paranaguá	130	2.3	9.91	8.21	9.81	10.28	9.55	10.12
19	South Center PR (Guarapuava)	Paranaguá	204	2.1	8.55	8.49	10.76	10.45	9.56	8.33
20	North Center MS (São Gabriel do Oeste)	Santos	720	2.0	6.09	6.26	6.13	6.35	6.21	5.47
21	Ribeirão Preto SP (Guairá)	Santos	314	1.5	8.42	8.51	8.67	10.05	8.91	7.55
22	Northeast MT (Canarana)	Santos	950	1.4	8.23	7.81	7.74	7.70	7.87	7.35
23	Assis SP (Palmital)	Santos	285	1.2	7.81	7.35	6.84	7.01	7.25	--na--
24	Northeast MT (Canarana)	Paranaguá	1075	1.2	7.30	7.05	6.92	6.83	7.03	6.48
<b>Average</b>			<b>626</b>	<b>100</b>	<b>6.91</b>	<b>6.49</b>	<b>7.29</b>	<b>7.16</b>	<b>6.96</b>	<b>6.28</b>

<sup>1</sup>Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price; na = not available

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

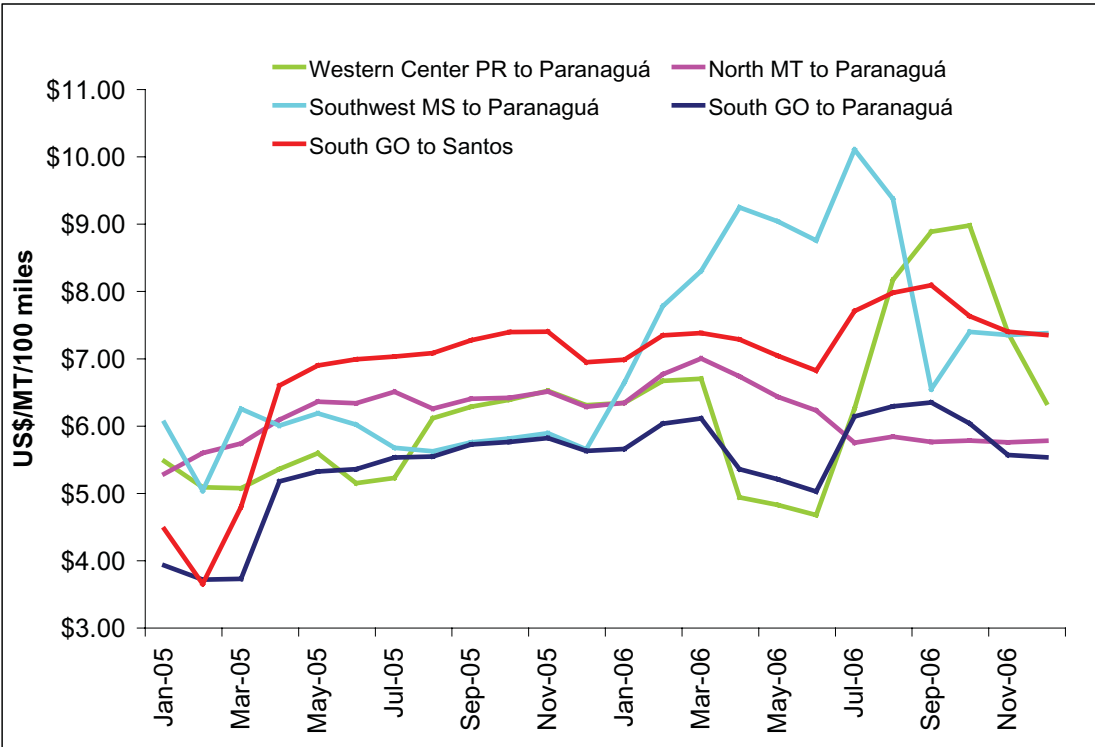
<sup>3</sup>Share is measured as a percentage of total production

<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

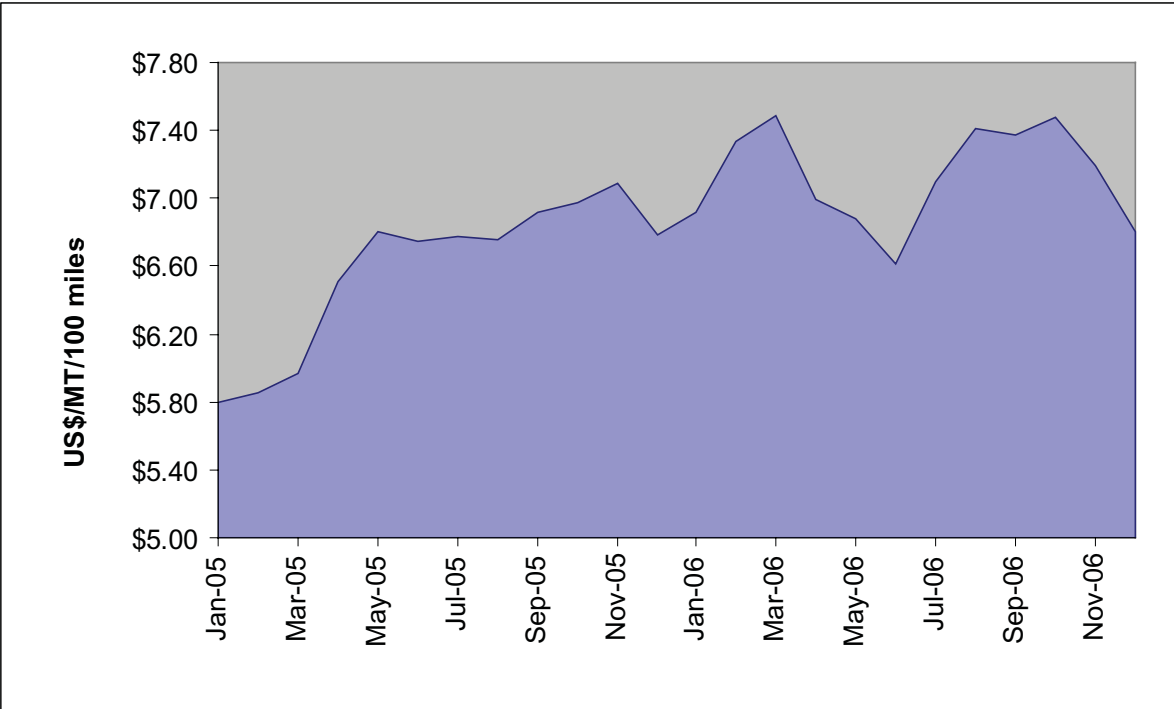
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Truck rates for selected Brazilian soybean export transportation routes



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

Brazilian soybean export truck transportation weighted average prices, 2005/06



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

## Transportation Indicators

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	5.80		100.00
Feb. 05	5.85	0.9	100.90
Mar. 05	5.97	2.0	102.92
Apr. 05	6.51	9.0	112.14
May 05	6.80	4.5	117.22
Jun. 05	6.74	-0.9	116.22
Jul. 05	6.77	0.5	116.76
Aug. 05	6.75	-0.3	116.41
Sep. 05	6.92	2.5	119.27
Oct. 05	6.98	0.9	120.28
Nov. 05	7.09	1.6	122.15
Dec. 05	6.78	-4.3	116.95
Jan. 06	6.91	1.9	119.18
Feb. 06	7.33	6.0	126.36
Mar. 06	7.48	2.1	129.02
Apr. 06	6.99	-6.6	120.57
May 06	6.88	-1.7	118.56
Jun. 06	6.62	-3.8	114.05
Jul. 06	7.10	7.3	122.41
Aug. 06	7.41	4.4	127.79
Sep. 06	7.37	-0.6	127.02
Oct. 06	7.48	1.5	128.88
Nov. 06	7.19	-3.8	123.92
Dec. 06	6.81	-5.3	117.32

\*Weighted average and quoted in US\$ per metric ton  
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

## Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Shanghai, China (US\$/metric ton)\*

Ports	1st qtr	2nd qtr	3rd qtr	4th qtr	2006 Avg
Santos	50.13	44.80	60.98	73.32	<b>57.31</b>
Paranaguá	49.13	43.80	59.98	72.32	<b>56.31</b>
Rio Grande	48.63	43.30	59.48	71.82	<b>55.81</b>

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

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

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

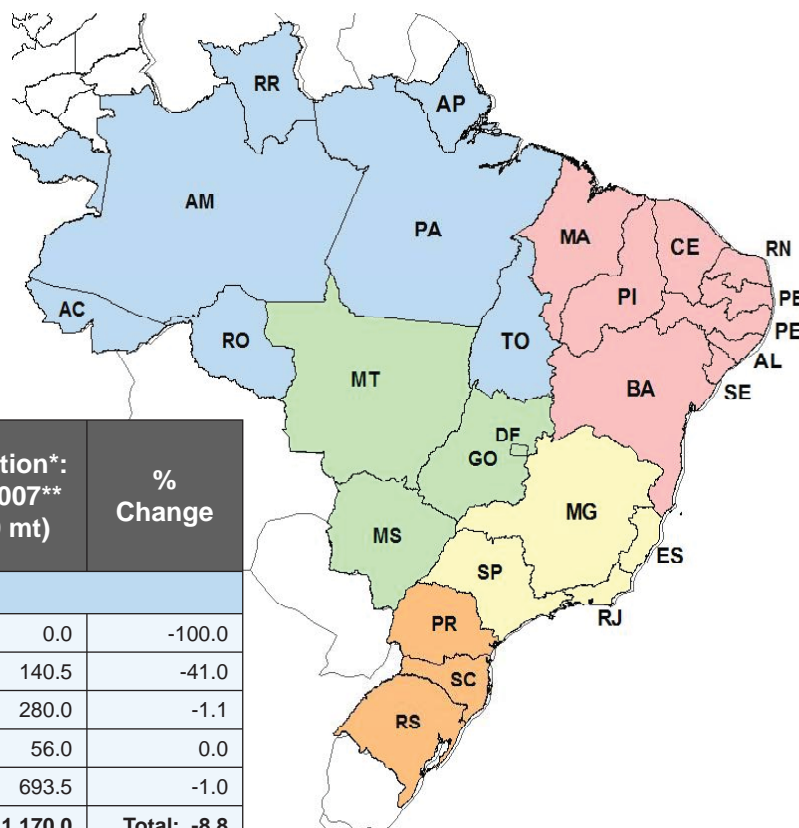
Ports	1st qtr	2nd qtr	3rd qtr	4th qtr	2005 Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	2006 Avg
Santos	45.53	45.84	44.54	56.73	<b>48.16</b>	39.51	36.91	50.24	60.40	<b>46.76</b>
Paranaguá	44.64	44.84	43.54	55.73	<b>47.19</b>	38.51	35.91	49.24	59.40	<b>45.76</b>
Rio Grande	44.20	44.39	43.04	55.23	<b>46.71</b>	37.06	35.41	48.74	58.90	<b>45.03</b>

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

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

# Soybean Production

Soybean production by state



Region/State	Production*: 2005-2006 (1,000 mt)	Production*: 2006-2007** (1,000 mt)	% Change
<b>North</b>			
Amazonas (AM)	5.7	0.0	-100.0
Pará (PA)	238.1	140.5	-41.0
Rondônia (RO)	283.0	280.0	-1.1
Roraima (RR)	56.0	56.0	0.0
Tocantins (TO)	700.4	693.5	-1.0
	<b>Total: 1,283.2</b>	<b>Total: 1,170.0</b>	<b>Total: -8.8</b>
<b>Northeast</b>			
Bahia (BA)	1,991.3	2,309.9	16.0
Maranhão (MA)	1,025.1	1,030.2	0.5
Piauí (PI)	544.5	534.0	-1.9
	<b>Total: 3,560.9</b>	<b>Total: 3,874.1</b>	<b>Total: 8.8</b>
<b>Center West</b>			
Distrito Federal (DF)	145.7	162.9	11.8
Goiás (GO)	6,396.7	6,110.9	-4.5
Mato Grosso (MT)	15,877.6	15,274.3	-3.8
Mato Grosso do Sul (MS)	4,375.5	4,880.4	11.5
	<b>Total: 26,795.5</b>	<b>Total: 26,428.5</b>	<b>Total: -1.4</b>
<b>Southeast</b>			
Minas Gerais (MG)	2,482.5	2,623.7	5.7
São Paulo (SP)	1,569.3	1,428.8	-9.0
	<b>Total: 4,051.8</b>	<b>Total: 4,052.5</b>	<b>Total: 0.0</b>
<b>South</b>			
Paraná (PR)	9,389.1	11,797.2	25.6
Rio Grande do Sul (RS)	7,518.6	9,188.4	22.2
Santa Catarina (SC)	814.8	1,040.0	27.6
	<b>Total: 17,722.5</b>	<b>Total: 22,025.6</b>	<b>Total: 24.3</b>
<b>Total Production:</b>	<b>53,413.9</b>	<b>57,550.7</b>	<b>7.74</b>
*Data based on calendar year, January-December			
**Forecast, May 2007			
Source: Companhia Nacional de Abastecimento (CONAB)			



**Brazil soybean supply and distribution  
(1,000 metric tons)**

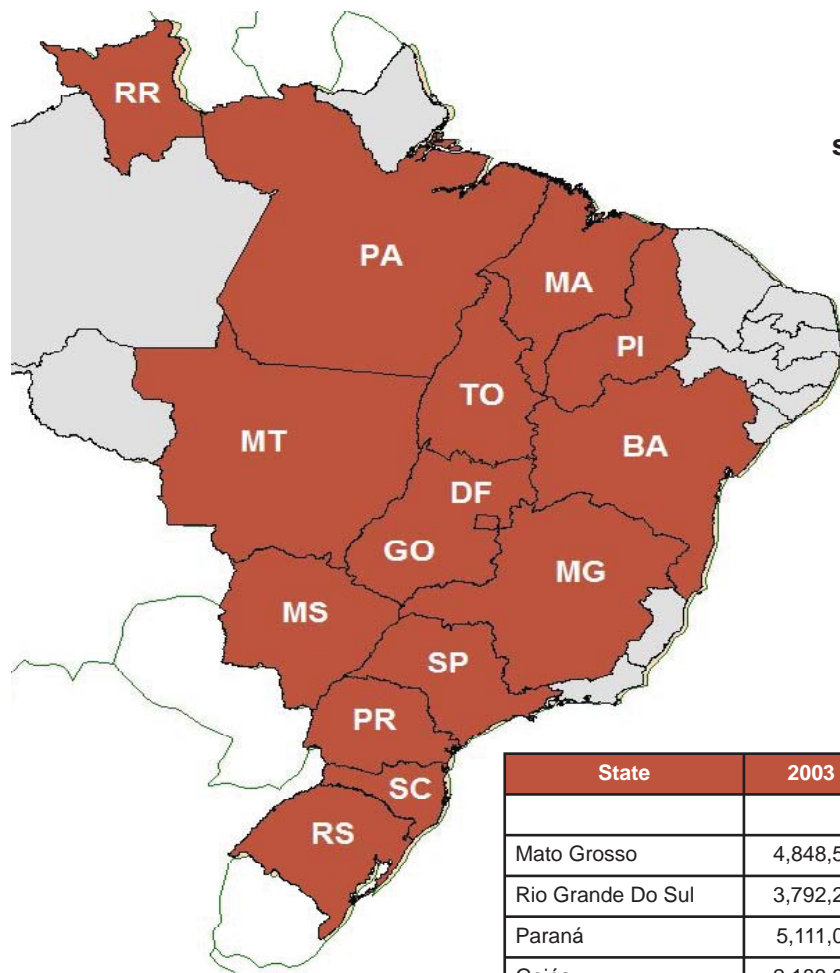
Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
1993/94	11,440	771	24,700	900	26,371	5,395	18,736	20,387	589
1994/95	11,680	589	25,900	900	27,389	3,492	21,599	23,249	648
1995/96	10,950	648	24,150	1,300	26,098	3,633	20,083	21,631	834
1996/97	11,800	834	27,300	1,450	29,584	8,327	18,944	20,658	599
1997/98	13,000	599	32,500	634	33,733	9,325	21,832	23,586	822
1998/99	12,900	822	31,300	616	32,738	8,912	21,645	23,423	403
1999/00	13,600	403	34,700	794	35,897	11,779	21,578	23,502	616
2000/01	13,934	616	39,500	854	40,970	15,521	22,773	24,992	457
2001/02	16,350	457	43,500	1,100	45,057	16,074	25,843	28,302	681
2002/03	18,448	681	52,000	1,124	53,805	19,987	27,796	30,520	3,298
2003/04	21,476	3,298	51,000	364	54,662	19,257	28,914	31,807	3,598
2004/05	22,800	3,598	53,000	352	56,950	22,799	29,728	32,513	1,638
2005/06	22,229	1,638	57,000	40	58,678	24,770	28,756	31,656	2,252
2006/07**	21,000	2,252	58,800	100	61,152	26,700	29,400	32,374	2,078

\*Data based on Brazil's local February/January Marketing Year (MY)

Where February 2006-January 2007 is the 2005/06 MY

\*\* Forecast, May 11, 2007

Source: USDA/Foreign Agricultural Service/Circular Series

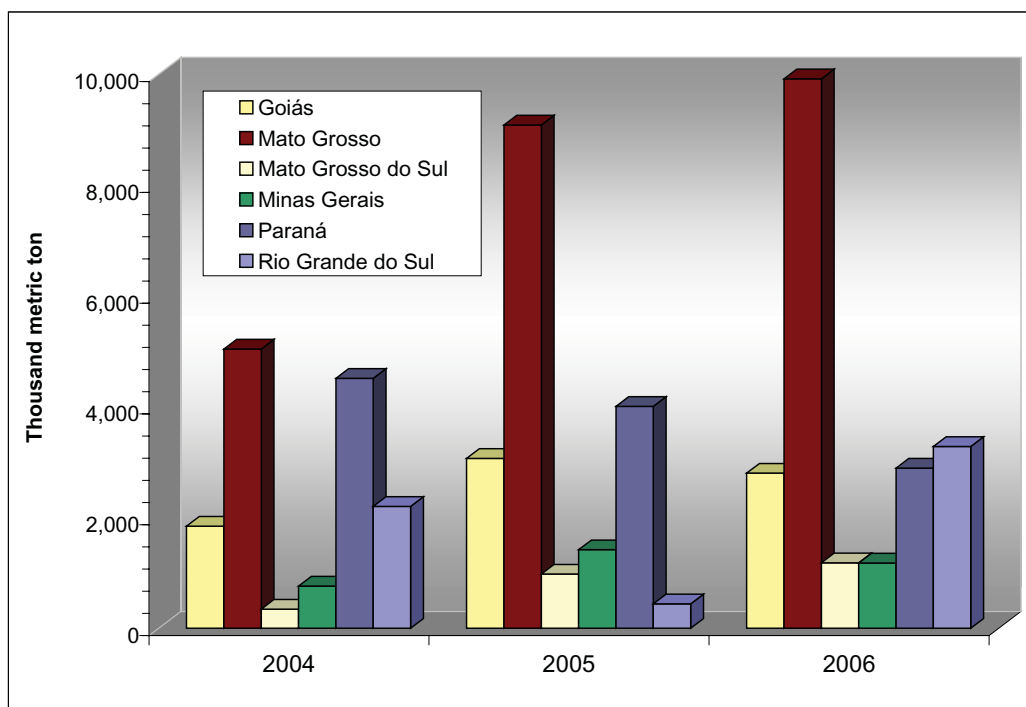


**Top 15 Brazilian soybean exporting states**

State	2003	2004	2005	2006	Rank
	-----Metric ton-----				
Mato Grosso	4,848,502	5,041,915	9,086,389	9,920,599	1
Rio Grande Do Sul	3,792,297	2,200,352	439,739	3,281,005	2
Paraná	5,111,064	4,513,005	4,006,891	2,891,525	3
Goiás	2,183,320	1,843,558	3,066,616	2,800,224	4
Mato Grosso Do Sul	233,830	345,325	978,248	1,182,096	5
Minas Gerais	850,481	762,478	1,417,669	1,179,189	6
Maranhão	576,581	676,922	896,838	1,021,543	7
São Paulo	369,799	977,322	547,148	939,202	8
Tocantins	185,232	362,612	589,965	633,956	9
Bahia	52,590	378,147	663,849	448,706	10
Rondônia	-	-	180,882	250,120	11
Santa Catarina	41,712	79,622	132,873	206,735	12
Pará	67,279	15,000	77,876	81,853	13
Distrito Federal	37,573	28,601	62,450	57,873	14
Piauí	57,853	31,471	32,999	24,429	15
Others	1,482,354	1,991,359	254,641	38,918	
<b>Total</b>	<b>19,890,466</b>	<b>19,247,689</b>	<b>22,435,071</b>	<b>24,957,973</b>	

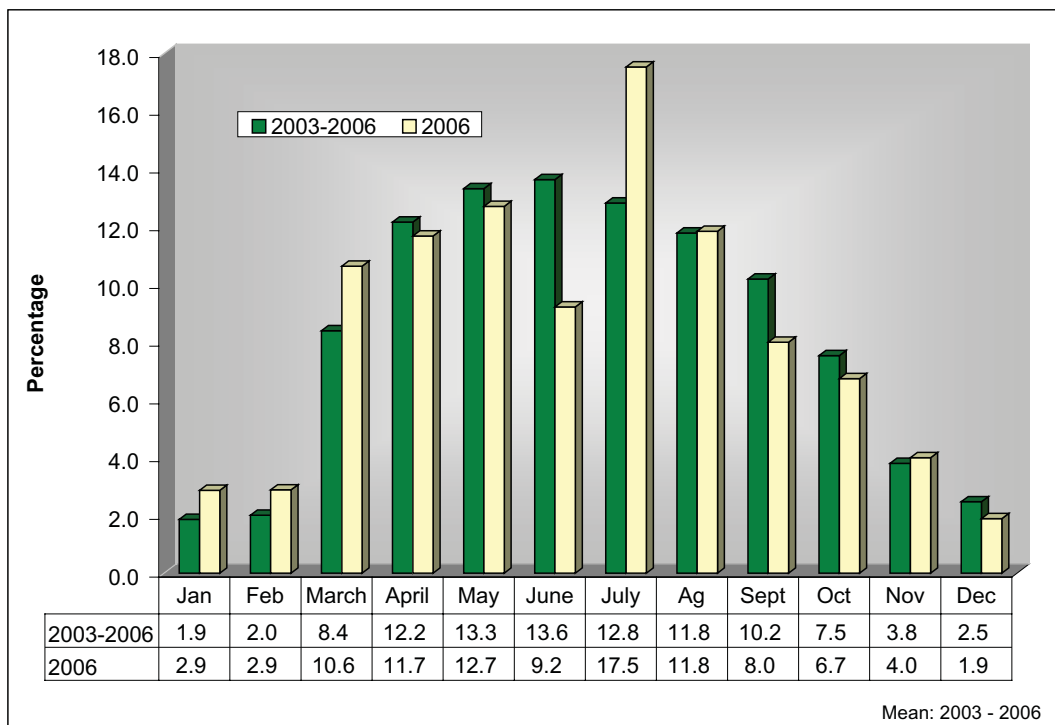
Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)/Digem/Suin/Geint

**Top 6 Brazil soybean exporting states**



Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

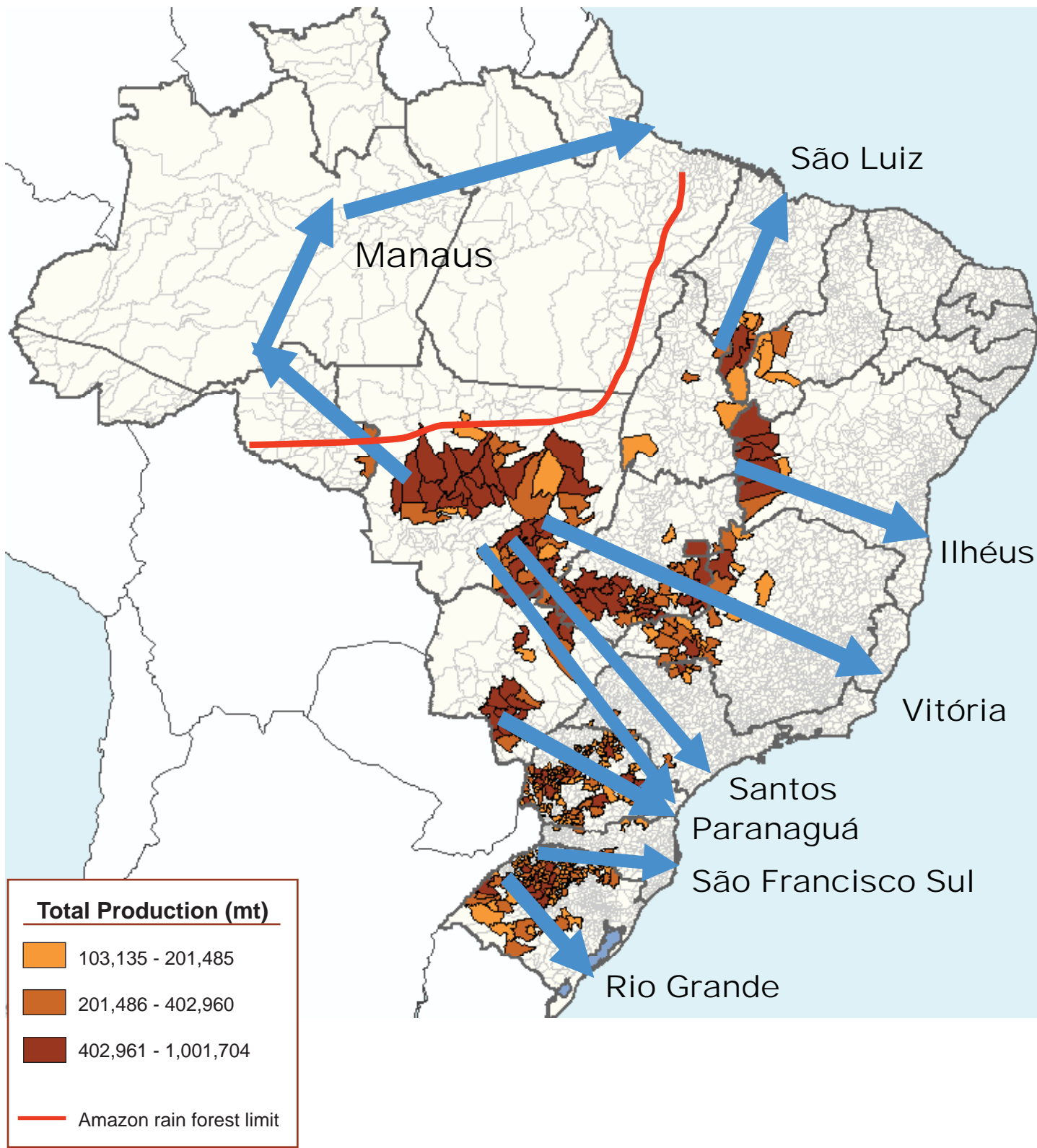
**Brazil soybean average monthly exports**



Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

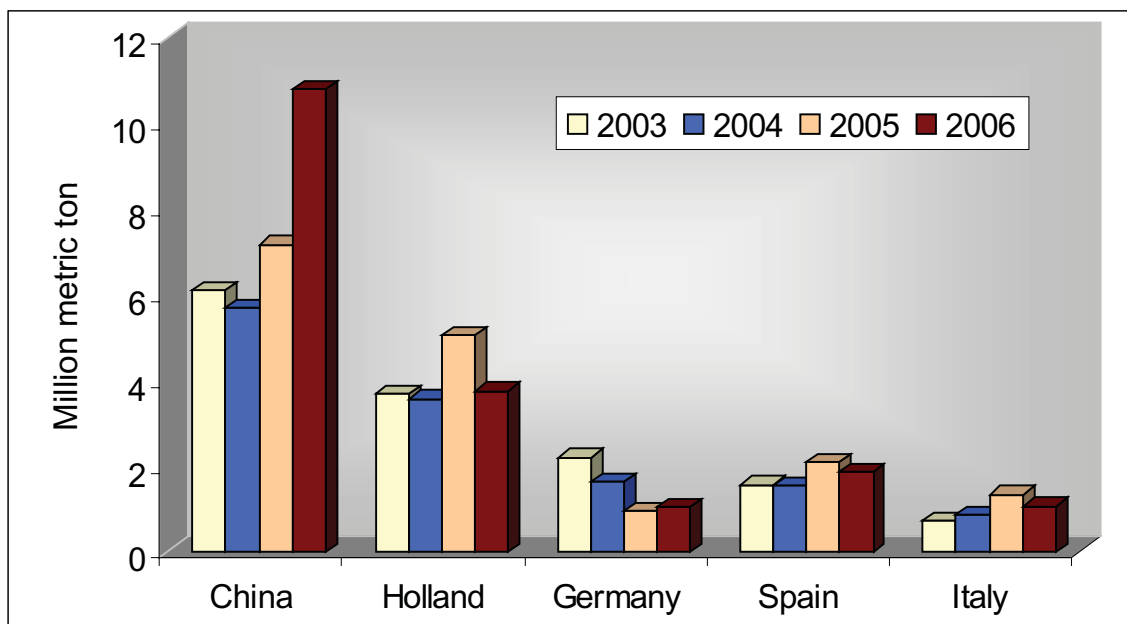
# Exports

Main export routes for soybeans



Source: Companhia Nacional de Abastecimento (CONAB)

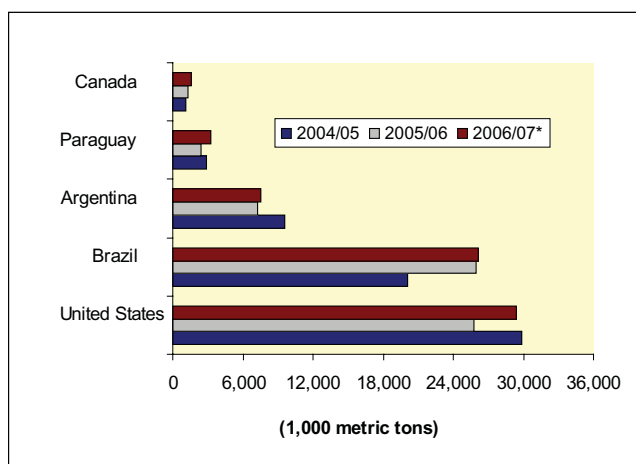
**Brazil soybeans: top 5 export destinations**



Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

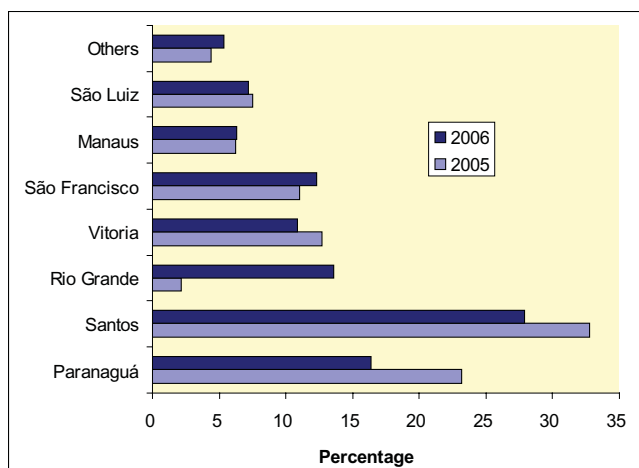
China and the European Union are the largest Brazilian soybean export markets. Brazil is the second largest soybean exporting country after the United States. Santos is the largest Brazilian soybean export port followed by Paranaguá and Rio Grande.

**Top 5 world soybean exporting countries**



\*Forecast, April 10, 2007  
Source: USDA/FAS

**Brazil soybean exports by port**

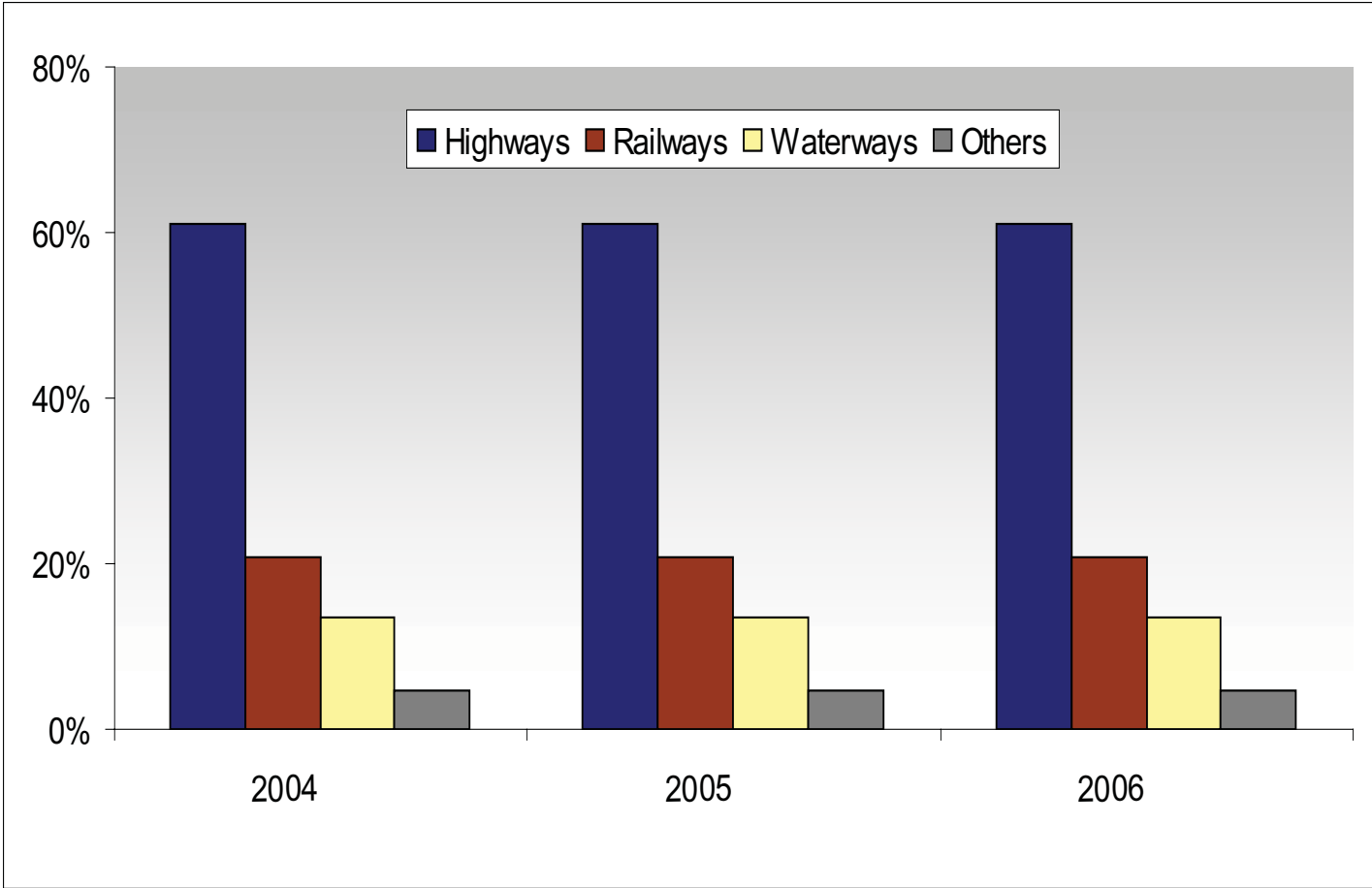


Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)



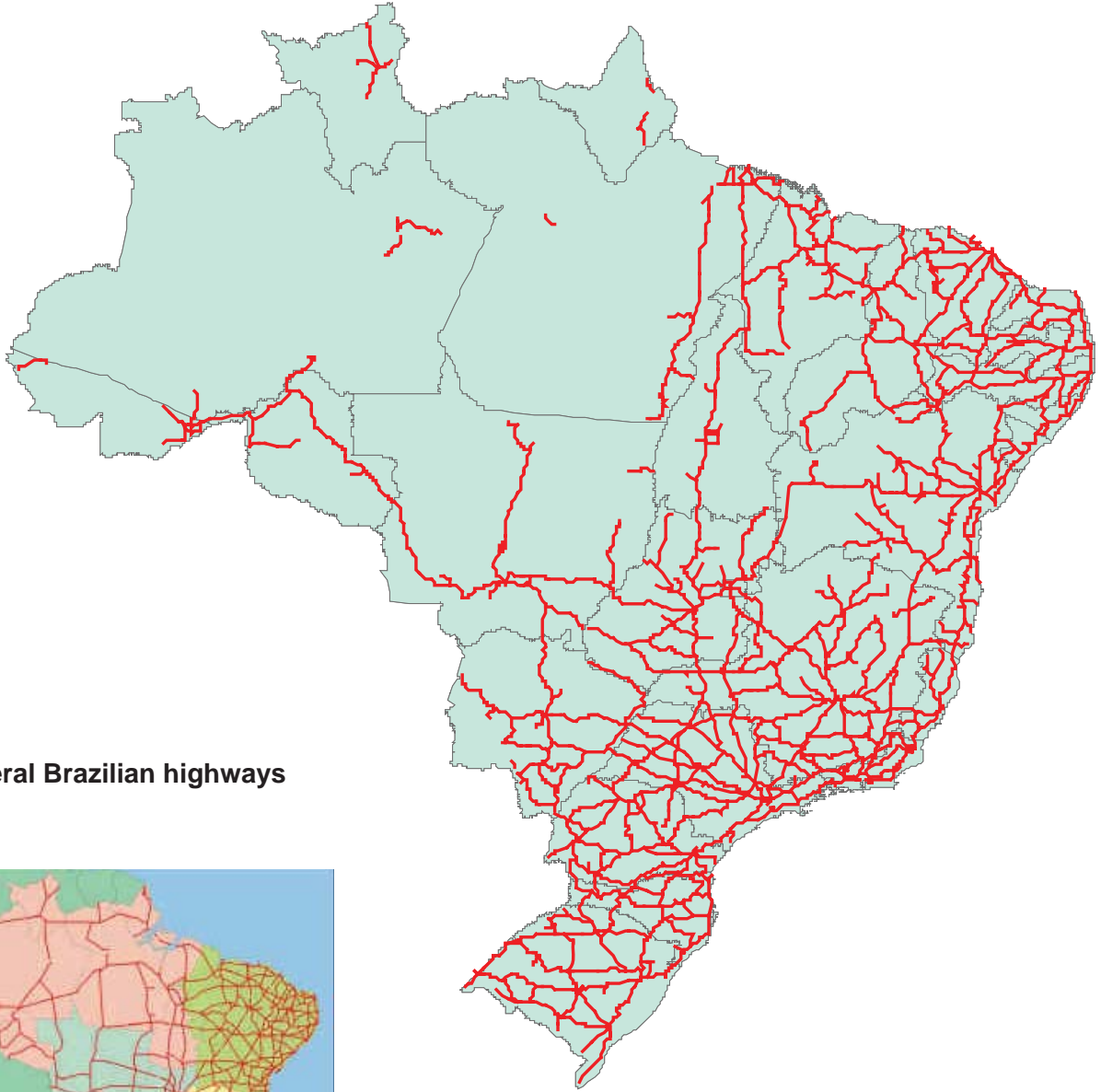
**Modal share for Brazil's general cargo**

In 2006, trucks carried 61 percent of Brazil's general cargo. Barge and rail shipped almost 21 and 14 percent, respectively.



Source: Confederação Nacional do Transporte (CNT)

## Major Brazilian highways



## Federal Brazilian highways



Sources: Companhia Nacional de Abastecimento (CONAB)  
Ministério dos Transportes, Brazil

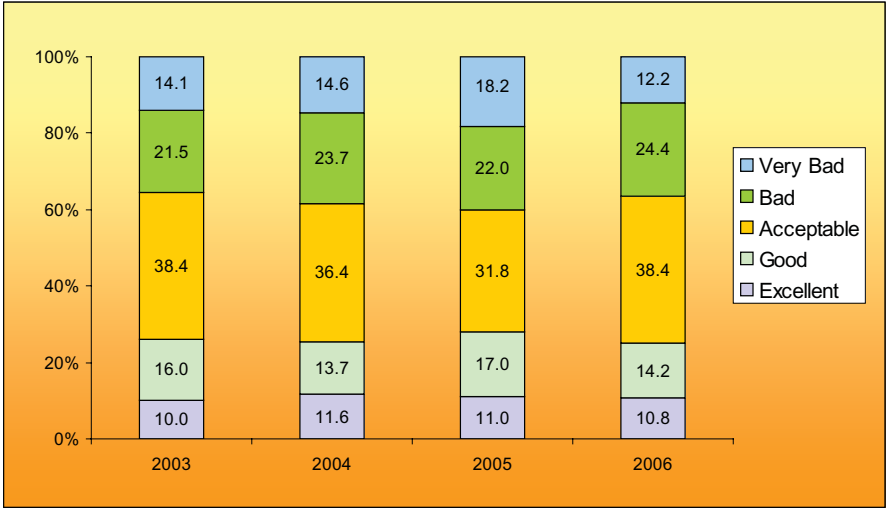


**Brazilian highways**

The Brazilian highway system comprises about 1 million miles of which 12 percent are paved. The best highways are located in the state of São Paulo. The 2006 survey of the highway system conducted by the Confederação Nacional do Transporte (CNT) shows 75 percent of Brazil's 52,317 highway miles assessed had some degree of deficiency.



**Brazilian highway conditions 2003-2006**

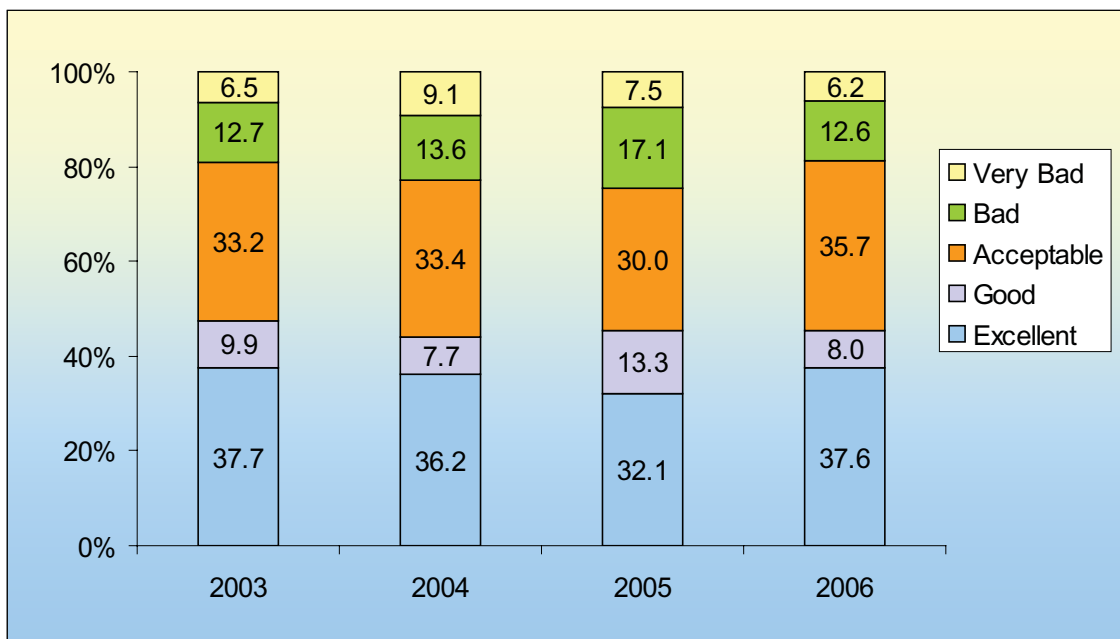


Source: Confederação Nacional do Transporte

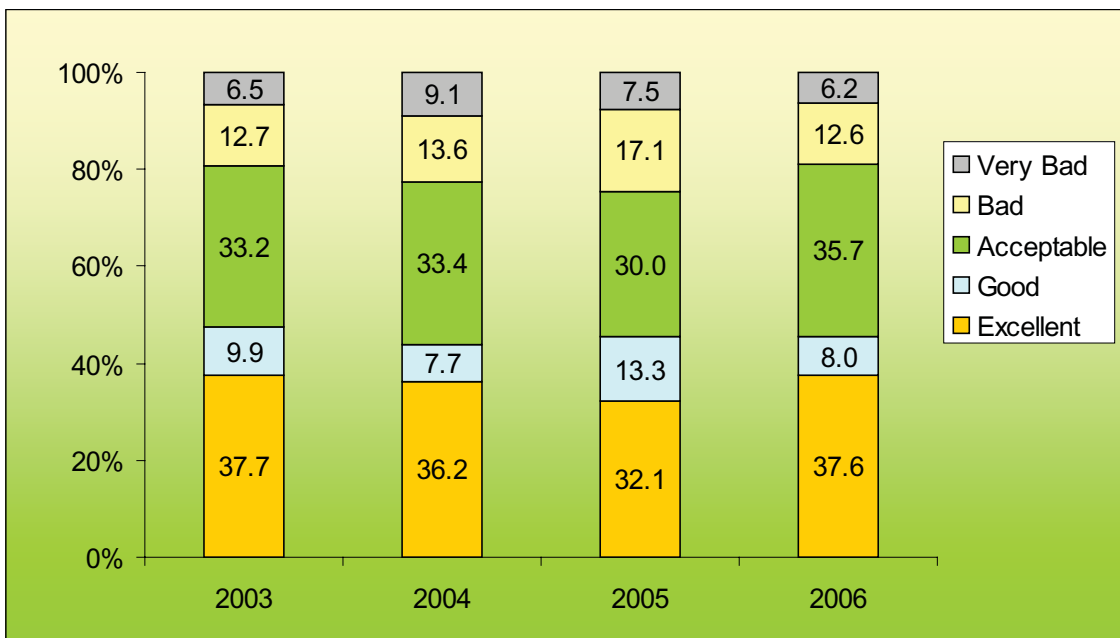
## Brazilian highways

The 2006 Confederação Nacional do Transporte (CNT) survey of the highway system shows that more than half of the paved roads ranged from acceptable to very bad and 45.6 percent were in good to excellent condition; 70.3 percent of traffic road signs were deemed inadequate; 40.5 percent of the roads did not have shoulders; and 40.7 percent of the roads did not have speed limit signs.

**Brazilian paved highway conditions  
2003-2006**

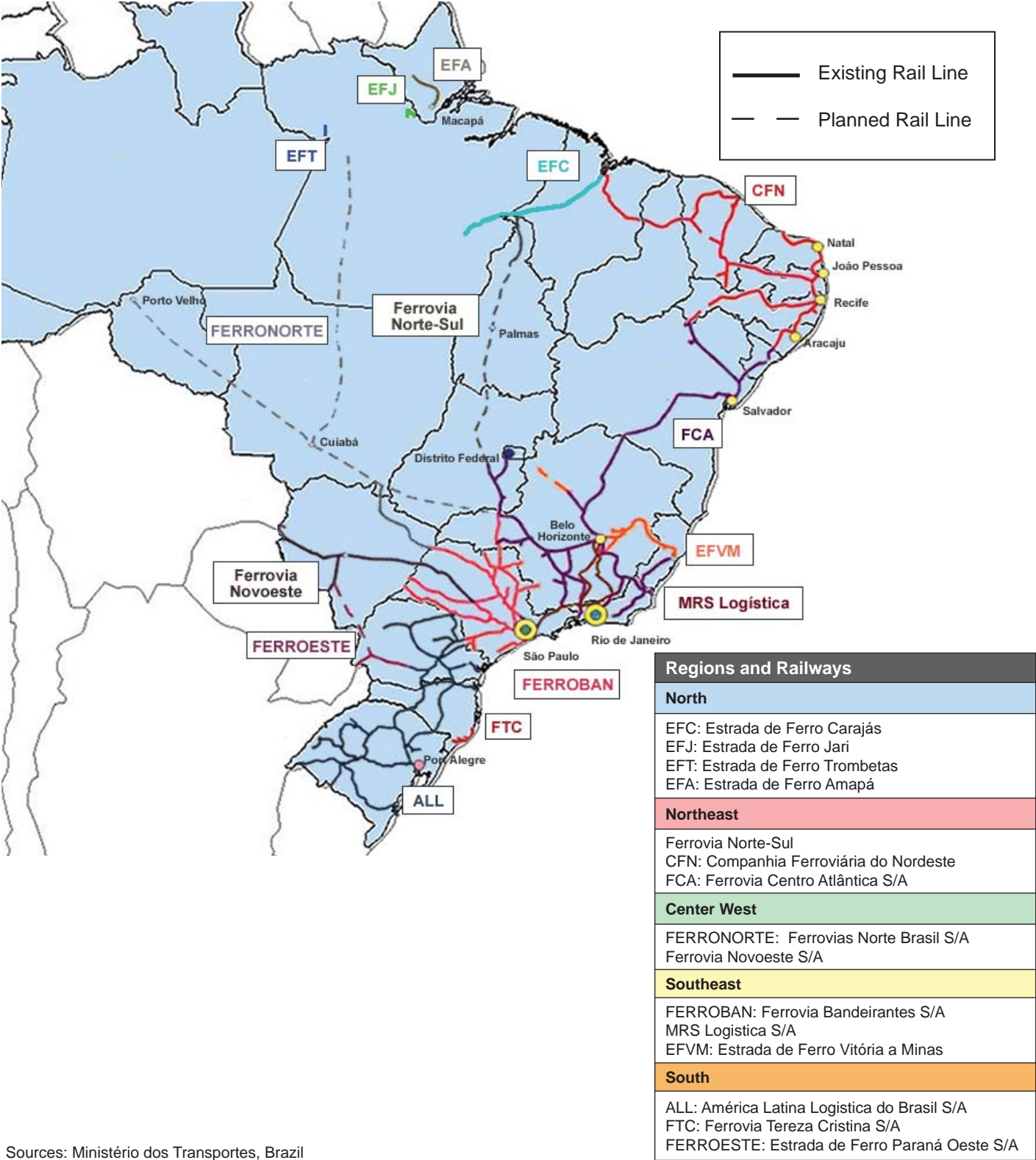


**Brazilian road sign conditions  
2003-2006**



**Brazilian rail system**

The Brazilian railroad system consists of 15 railroads with an extension of 17,861 miles, mostly concentrated in the south, southeast, and northeast. The following 11 railroads are privately operated: EFC, CFN, EFVM, FCA, FERROBAN, FERRONORTE, NOVOESTE, ALL, FTC, MRS, and FERROESTE. FCA and ALL are the largest Brazilian railroads, accounting for 25 and 23 percent, respectively, of total railroads.



Sources: Ministério dos Transportes, Brazil  
National Association of Rail Transporters (ANTF)

## Brazilian rail system: gauge sizes

Gauge size (distance between two rails) varies by region. There are 3 types of gauge: metric (39"), wide (63") and mixed (39"-63"). The metric gauge accounts for 65 percent of the total Brazilian railroads, and predominates in the southern region. The wide gauge accounts for 17 percent of total railroads and prevails in the southeast region.



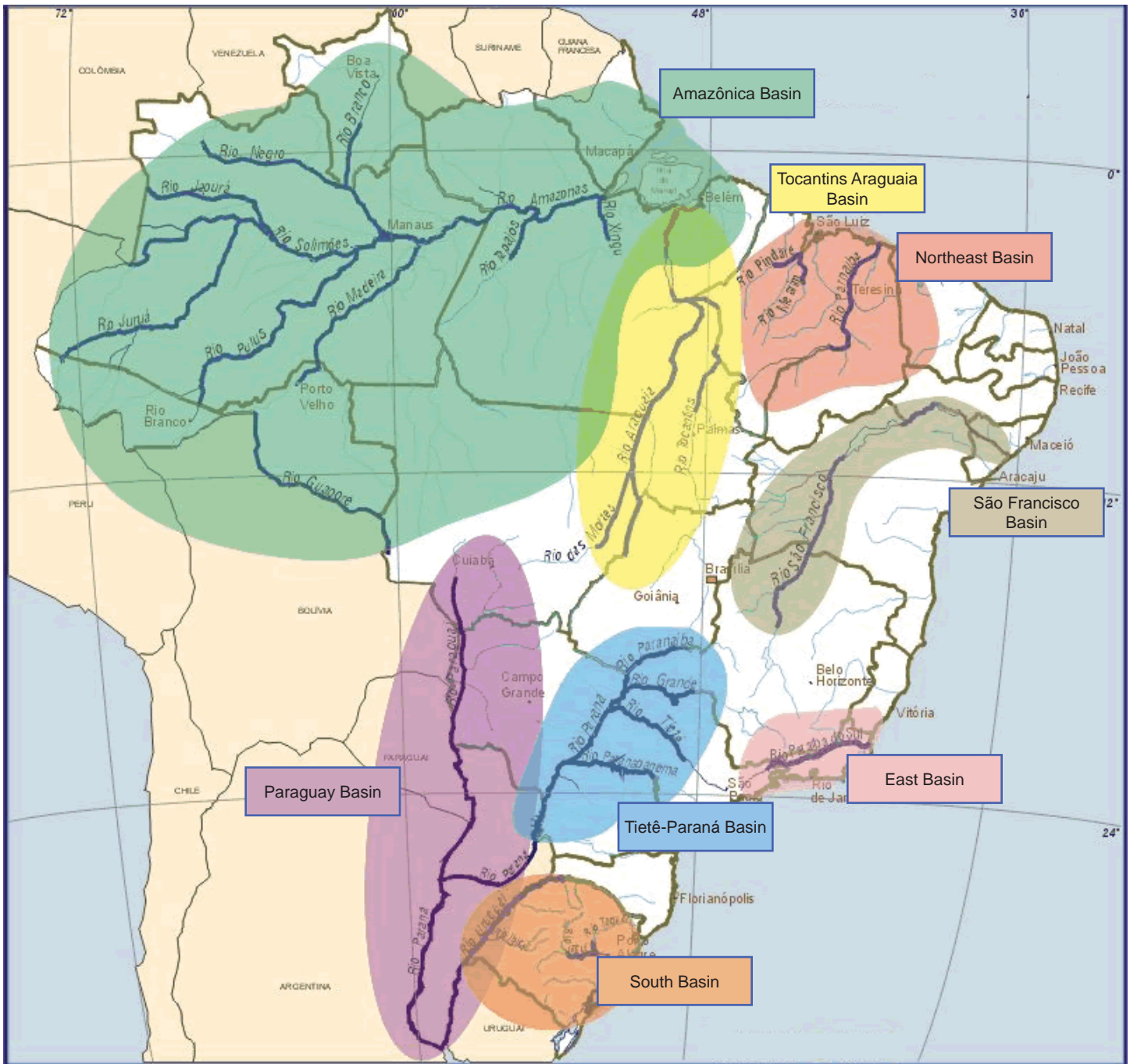
Source: National Association of Rail Transporters (ANTF)



# Transportation Modes

## Brazilian river basins

Brazil's river system comprises 8 basins: Amazônica, Nordeste, Tocantins Araguaia, São Francisco, Bacia do Leste, Bacia do Prata, Paraguay, and Sul. The Amazônica and Paraguay Basin account for 72 percent of the total area of the Brazilian basins. The Paraguay Basin serves Argentina, Brazil, Bolivia, Paraguay, and Uruguay. Its navigable extension is comparable with the Mississippi River in the United States and the Rhine River in Europe.



Source: Ministério dos Transportes, Brazil

**United States: soybean supply and distribution  
(1,000 metric tons)**

Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
1993/94	23,191	7,955	50,885	175	59,015	16,006	34,716	37,318	5,691
1994/95	24,609	5,691	68,444	149	74,284	22,867	38,242	42,305	9,112
1995/96	24,906	9,112	59,174	121	68,407	23,108	37,273	40,306	4,993
1996/97	25,637	4,993	64,780	242	70,015	24,110	39,080	42,317	3,588
1997/98	27,968	3,588	73,176	135	76,899	23,760	43,464	47,701	5,438
1998/99	28,507	5,438	74,598	82	80,118	21,898	43,262	48,736	9,484
1999/00	29,318	9,484	72,224	114	81,822	26,537	42,927	47,388	7,897
2000/01	29,303	7,897	75,055	97	83,049	27,103	44,625	49,203	6,743
2001/02	29,532	6,743	78,672	63	85,478	28,948	46,259	50,867	5,663
2002/03	29,339	5,663	75,010	127	80,800	28,423	43,948	47,524	4,853
2003/04	29,330	4,853	66,778	151	71,782	24,128	41,632	44,595	3,059
2004/05	29,930	3,059	85,013	152	88,224	29,860	46,160	51,404	6,960
2005/06	28,834	6,960	83,368	92	90,420	25,778	47,320	52,413	12,229
2006/07**	30,190	12,229	86,770	109	99,108	29,393	48,172	53,123	16,592

\*Data based on local Marketing Year (MY). Soybeans are on a September/August MY

\*\*Forecast: May 11, 2007

Source: USDA/Foreign Agricultural Service/Circular Series

**Soybean production: world supply and distribution  
(1,000 metric tons)**

Country	2002/03	2003/04	2004/05	2005/06	2006/07*
United States	75,010	66,778	85,013	83,368	86,770
Brazil	52,000	51,000	53,000	57,000	58,800
Argentina	35,500	33,000	39,000	40,500	45,500
China	16,510	15,394	17,400	16,350	16,200
India	4,000	6,800	5,850	6,300	7,300
Paraguay	4,500	3,911	4,050	3,640	6,000
Canada	2,336	2,263	3,042	3,161	3,500
Other	6,933	7,385	8,391	9,459	9,605
<b>Total</b>	<b>196,789</b>	<b>186,531</b>	<b>215,746</b>	<b>219,778</b>	<b>233,675</b>

Most countries are on an October/September Market Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on a March/February MY

\*Forecast: May 11, 2007

Source: USDA/ Foreign Agricultural Service/Circular Series

## Reference Material

Soybean imports: world supply and distribution (1,000 metric tons)					
Country	2002/03	2003/04	2004/05	2005/06	2006/07*
China	21,417	16,933	25,802	28,317	30,000
EU-27	16,943	14,675	14,539	13,928	14,623
Japan	5,087	4,688	4,295	3,957	4,100
Mexico	4,230	3,797	3,640	3,667	4,000
Taiwan	2,351	2,217	2,256	2,498	2,570
Thailand	1,779	1,407	1,517	1,473	1,600
Korea	1,516	1,368	1,240	1,190	1,275
Indonesia	1,238	1,059	1,112	1,187	1,270
Iran	533	883	976	1,084	1,100
Turkey	756	612	1,046	863	1,050
Other	7,257	6,409	7,309	5,751	6,941
<b>Total</b>	<b>63,107</b>	<b>54,048</b>	<b>63,732</b>	<b>63,915</b>	<b>68,529</b>

Most countries are on an October/September Market Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on a March/February MY

\*Forecast: May 11, 2007

Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean exports: world supply and distribution (1,000 metric tons)					
Country	2002/03	2003/04	2004/05	2005/06	2006/07*
United States	28,423	24,128	29,860	25,778	29,393
Brazil	19,629	20,417	20,137	25,911	25,600
Argentina	8,714	6,741	9,568	7,249	7,200
Paraguay	2,806	2,776	2,888	2,465	3,800
Canada	726	897	1,093	1,326	1,550
Other	774	1,018	1,083	1,492	1,624
<b>Total</b>	<b>61,072</b>	<b>55,977</b>	<b>64,629</b>	<b>64,221</b>	<b>69,167</b>

Most countries are on an October/September Market Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on a March/February MY

\*Forecast: May 11, 2007

Source: USDA/ Foreign Agricultural Service/Circular Series



Soybean crush: world supply and distribution (1,000 metric tons)					
Country	2002/03	2003/04	2004/05	2005/06	2006/07*
United States	43,948	41,632	46,160	47,320	48,172
China	26,540	25,439	30,362	34,500	36,700
Argentina	23,526	25,021	27,313	31,886	35,000
Brazil	27,168	29,323	29,252	28,285	28,900
EU-27	16,480	14,084	14,222	13,529	14,400
India	3,420	5,534	5,030	5,435	6,335
Mexico	4,335	3,889	3,729	3,783	4,125
Japan	4,217	3,536	3,149	2,820	2,925
Taiwan	2,135	2,046	2,013	2,180	2,290
Bolivia	1,524	1,676	1,815	1,843	1,794
Canada	1,796	1,534	1,580	1,508	1,525
Thailand	1,808	1,385	1,500	1,413	1,520
Paraguay	1,594	985	979	990	1,250
Iran	625	938	1,066	1,154	1,170
Korea	1,211	1,089	975	960	990
Other	5,198	5,622	6,538	6,735	7,542
<b>Total</b>	<b>165,525</b>	<b>163,733</b>	<b>175,683</b>	<b>184,341</b>	<b>194,638</b>

Most countries are on an October/September Market Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on a March/February MY

\*Forecast: May 11, 2007

Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean ending stocks: world supply and distribution (1,000 metric tons)					
Country	2002/03	2003/04	2004/05	2005/06	2006/07*
Argentina	15,199	15,584	16,960	17,452	20,216
Brazil	16,636	15,507	16,750	16,733	18,138
United States	4,853	3,059	6,960	12,229	16,592
China	4,467	2,100	4,700	4,473	3,433
EU-27	876	906	880	933	916
Other	1,634	1,648	2,240	2,024	2,595
<b>Total</b>	<b>43,665</b>	<b>38,804</b>	<b>48,490</b>	<b>53,844</b>	<b>61,890</b>

Most countries are on an October/September Market Year (MY). The United States, Mexico, and Thailand are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on a March/February MY

\*Forecast: May 11, 2007

Source: USDA/ Foreign Agricultural Service/Circular Series

## Reference Material

Quarterly costs of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China										
	2006					2006				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
<b>To Hamburg, Germany</b>										
	<b>Minneapolis, Minnesota --US\$/mt--</b>					<b>Davenport, Iowa --US\$/mt--</b>				
Truck	9.42	9.18	10.14	10.26	9.75	9.42	9.18	10.14	10.26	9.75
Barge <sup>1</sup>	25.38	28.30	39.92	39.22	33.21	21.42	21.58	31.73	27.64	25.59
Ocean <sup>2</sup>	19.53	20.13	26.87	29.60	24.03	19.53	20.13	26.87	29.60	24.03
Total transportation	54.33	57.61	76.93	79.08	66.99	50.37	50.89	68.74	67.50	59.38
Farm Value <sup>3</sup>	202.34	198.42	190.94	209.93	200.41	204.78	203.44	189.48	218.50	204.05
Landed Cost	256.67	256.03	267.87	289.01	267.40	255.15	254.33	258.22	286.00	263.43
Transport % of landed cost	21.2	22.5	28.7	27.4	24.9	19.7	20.0	26.6	23.6	22.5
<b>To Shanghai, China</b>										
	<b>Minneapolis, Minnesota --US\$/mt--</b>					<b>Davenport, Iowa --US\$/mt--</b>				
Truck	9.42	9.18	10.14	10.26	9.75	9.42	9.18	10.14	10.26	9.75
Barge <sup>1</sup>	25.38	28.30	39.92	39.22	33.21	21.42	21.58	31.73	27.64	25.59
Ocean <sup>2</sup>	35.71	35.52	44.88	50.24	41.59	35.71	35.52	44.88	50.24	41.59
Total transportation	70.51	73.00	94.94	99.72	84.54	66.55	66.28	86.75	88.14	76.93
Farm Value <sup>3</sup>	202.34	198.42	190.94	209.93	200.41	204.78	203.44	189.48	218.59	204.07
Landed Cost	272.85	271.42	285.88	309.65	284.95	271.33	269.72	276.23	306.73	281.00
Transport % of landed cost	25.8	26.9	33.2	32.2	29.5	24.5	24.6	31.4	28.7	27.3

<sup>1</sup>The Mississippi River closes from Minneapolis to just north of St. Louis from mid-December to late March

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

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

Average quarterly exchange rate										
	1st qtr	2nd qtr	3rd qtr	4th qtr	2005	1st qtr	2nd qtr	3rd qtr	4th qtr	2006
<b>Real per US\$</b>	2.6692	2.4792	2.3434	2.2520	<b>2.4360</b>	2.1974	2.1879	2.1711	2.1520	<b>2.1771</b>

Source: Banco Central do Brasil

Cost of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China						
	2005 Average	2006 Average	% Change	2005 Average	2006 Average	% Change
	<b>To Hamburg, Germany</b>					
	<b>Minneapolis, Minnesota --US\$/mt--</b>			<b>Davenport, Iowa --US\$/mt--</b>		
Truck	8.59	9.75	13.50	8.59	9.75	13.50
Barge <sup>1</sup>	25.74	33.21	29.03	21.84	25.59	17.17
Ocean <sup>2</sup>	28.61	24.03	-15.98	28.61	24.03	-15.98
Total transportation <sup>2</sup>	62.93	66.99	6.45	59.04	59.38	0.57
Farm Value <sup>3</sup>	217.58	200.41	-7.89	215.65	204.05	-5.38
Landed Cost	280.51	267.40	-4.67	274.69	263.43	-4.10
Transport % of landed cost	22.5	24.9	11.0	21.5	22.5	4.4
	<b>To Shanghai, China</b>					
	<b>Minneapolis, Minnesota --US\$/mt--</b>			<b>Davenport, Iowa --US\$/mt--</b>		
Truck	8.59	9.75	13.50	8.59	9.75	13.50
Barge <sup>1</sup>	25.74	33.21	29.03	21.84	25.59	17.17
Ocean <sup>2</sup>	49.50	41.59	-15.98	49.50	41.59	-15.98
Total transportation <sup>2</sup>	83.83	84.54	0.86	79.93	76.93	-3.76
Farm Value <sup>3</sup>	217.58	200.41	-7.89	215.65	204.07	-5.37
Landed Cost	301.40	284.95	-5.46	295.58	281.00	-4.93
Transport % of landed cost	27.8	29.5	6.1	27.1	27.3	0.9

<sup>1</sup>The Mississippi River closes from Minneapolis to just north of St. Louis from mid-December to late March. The distance by barge between Minneapolis and Davenport to the Port of New Orleans is 1,713 and 1,343 miles, respectively.

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

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

Selected quarterly Brazilian farm prices (US\$/metric ton)*										
	1st qtr	2nd qtr	3rd qtr	4th qtr	2005 Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	2006 Avg
Rio Grande do Sul	202.61	210.19	214.23	206.36	<b>208.35</b>	202.56	198.03	207.37	233.43	<b>210.34</b>
Mato Grosso	145.15	161.38	175.08	174.28	<b>163.97</b>	157.86	150.72	161.30	189.65	<b>164.88</b>
Goiás	174.70	179.81	188.26	184.89	<b>181.92</b>	180.71	175.49	185.73	216.60	<b>189.63</b>
Paraná	196.31	207.04	222.81	214.81	<b>210.24</b>	206.88	194.83	211.06	242.47	<b>213.81</b>

Source: Companhia Nacional de Abastecimento (CONAB)

