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# Soybean Transportation Guide: Brazil 2010

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

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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. Brazil's competitiveness in the world market depends largely on its transportation infrastructure and cost. The Soybean Transportation Guide is a visual snapshot of Brazilian soybean transportation in 2010. It provides data on the cost of shipping soybeans via highways and ships to Shanghai, China, and Hamburg, Germany, and gives information about soybean production, exports, railways, ports, and infrastructural developments.

Brazilian soybean transportation costs to Hamburg and Shanghai as a percentage of total landed costs increased 6–19 percent in Mato Grosso (MT), Paraná (PR), Rio Grande do Sul (RS) and South Goiás (GO) from a year earlier as a result of an increase in truck rates which more than offset lower farm prices. Brazilian soybean prices are quoted in U.S. dollars, based on the Chicago Board of Trade, and producers are paid in reais. Consequently, even though international soybean prices increased, the strengthening of the real against the U.S. dollar resulted in a drop in Brazilian farm price. However, producers benefit from lower imported production inputs, such as chemicals, fertilizers, and farm equipment, as well as low ocean rates. Brazilian shippers also benefit from economies of scale lowering their average production cost, which partially shields against currency appreciation.

The cost of shipping a metric ton of soybeans 100 miles by truck increased nearly 23 percent last year, from \$8.74 in 2009 to \$10.74 in 2010. Truck rates began low at the beginning of the year but increased during the 2nd and 3rd quarter, surpassing the record quarter high of \$11.15/mt/100 miles set in the 3rd quarter 2008, but were lower than the July 2008 peak of \$12.05/mt/100 miles. Typically, the peak of Brazilian soybean exports occurs in May. By the end of June, almost two thirds of the year's soybeans are exported.

According to the Confederação Nacional do Transporte (CNT), the best Brazilian highways are located in the Southeast, followed by the South and Midwest regions. The Midwest and South regions are the most important soybean production and exporting areas. Almost half of Brazilian soybean production comes from the Midwest region and 37 percent from the South. Soybean producers in the south region have lower marketing costs than the Midwest due to its proximity to ports, more choices of transportation mode, and better road conditions. For example, routes located in Rio Grande do Sul showed smaller increases in truck rates because of shorter distances to the port of Rio Grande, about 288 miles. These selected routes saw proportionally greater increases in transportation costs in terms of the U.S. dollar because of the 12 percent appreciation of the real against the dollar, from 1.9977 reais per US\$ to 1.7595.

In 2010, ocean rates from the Port of Santos to Shanghai, China, steadily increased throughout the year, reaching a peak in the 3rd quarter, but still remaining 5 percent below 2009 rates, averaging \$55.84/mt. Ocean rates to Hamburg hit a peak of \$36.17/mt in the 2nd quarter and steadily declined in the 3rd and 4th quarter, ranging from \$31–\$36/mt.

According to Drewry, China's tight monetary policy, India's iron ore export ban, Russia's grain export ban, and massive floods at the end of the year in Australia contributed to volatility in the 2010 dry bulk rates. For example, in 2010, the cost to ship 1 mt of soybeans from Brazil to Shanghai by ocean vessel fell on average 2 percent from \$59.07/mt to \$57.66/mt. At the same time, the cost to ship 1 mt of soybeans from Brazil to Hamburg by ocean-going vessel increased on average almost 4 percent from \$33.21/mt to \$34.91/mt.

Ocean freight spreads between North America and South America to Asia can be at premium or discount depending on current market conditions, vessel availability, port loading conditions, ship size, distance, Panama Canal toll charges and delays, as well as fuel costs. For example, last year U.S. soybeans ocean rates to China were at premium because the United States shipped a significant amount of soybeans to China. Brazil ocean rates to Hamburg can be higher than the rates to China because carriers serving the Brazil–Hamburg route do not have the flexibility to reduce capacity in the same way as the Brazil–Shanghai route due to the shorter voyage distance and lack of markets caused by the slow economic recovery. The distance from Santos to Hamburg is 5,683 nautical miles; from Santos to Shanghai it is almost twice that—11,056 nautical miles. Santos was the most important soybean export port.

U.S. transportation as a percentage of total landed costs for soybeans to Hamburg and Shanghai was up 20–26 percent in 2010 because of higher ocean and barge rates, but still below Brazil's. Larger crops increased barge demand in the northernmost portion of the upper Mississippi River, resulting in an 8-11 percent increase in barge rates from Minneapolis, MN, and Davenport, IA, to New Orleans, LA.

The Confederação Nacional do Transporte (CNT) estimates that because of the poor conditions of the paved roads, Brazilian operational costs of cargo trucks are 28 percent higher than they would be on paved roads under optimal conditions. The Brazilian government has instituted the Growth Acceleration Program (PAC 1) 2007–2010 and the National Plan of Logistics and Transportation (PNLT) 2008–2023 to improve infrastructure and aid Brazil's competitiveness in the world market. In March 2010, the Brazilian government announced the Growth Acceleration Program (PAC 2), 2011-2014, with a planned investment of US\$ 60 billion allocated to the logistic sector.

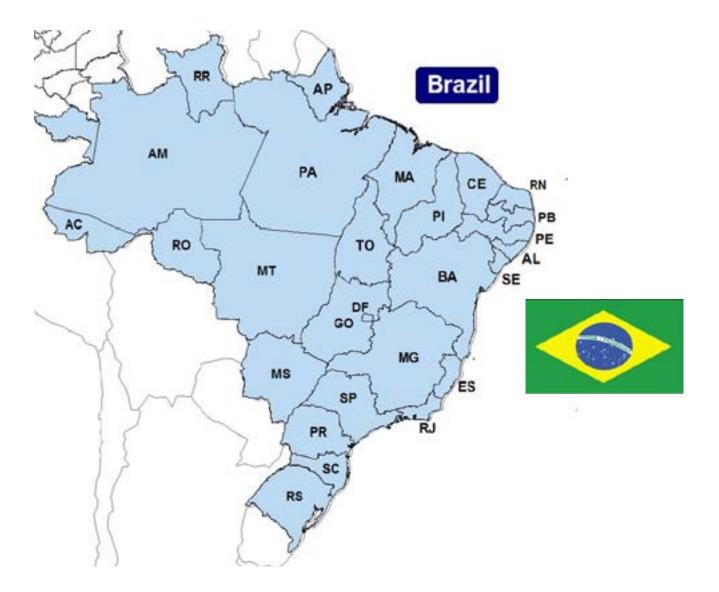
In Sorriso, North MT (the largest Brazilian soybean-producing State, Midwest region) transportation costs represented 39 percent of the 2010 total landed costs of shipping soybeans to Shanghai through Santos and Paranaguá, compared with 45 percent in 2006. However, paving BR 163 (Part of PAC 1) would transform Brazil's Midwest region by increasing efficiency in an agricultural sector which for years has not been able to materialize the benefits of its large economies of scale in soybean production. BR-163 is a major highway connecting Brazil's Midwest to the Amazon River. If BR-163 pavement is realized, because of the shorter distance, the cost of shipping a metric ton (mt) of soybeans 100 miles from Sorriso, North Mato Grosso (MT) to Santarém, Pará (PA), would range from \$7.77-\$9.70<sup>1</sup> compared to \$8.75 to Santos, \$7.24 to Paranaguá, and the 2009 Brazil average truck rate of \$8.74. The cost of shipping soybeans from Sorriso to Santarém per metric ton would be reduced 34 percent to \$61.81 compared with the average cost of shipping to Santos and Paranaguá of \$94.18.<sup>2</sup> Rates might decline 27-42 percent, ranging from \$55.00 to \$68.63 per metric ton. Sorriso, North MT, is located about 707 miles from Santarem, 1,190 from Santos, and 1,262 miles from Paranaguá. This improvement in the infrastructure will enhance Brazil's market share in the world agricultural market. Mato Grosso's agricultural competitiveness will improve considerably when the paving of BR-163 is completed in 2012 and soybean exports are shifted from the Southern ports of Santos and Paranaguá to the north port of Santarém on the Amazon River.

<sup>1</sup> Accounting for average rate variability, assuming there are no delays caused by the lack of port export terminal capacity.

<sup>2 \$94/</sup>mt = average 2009 truck rates (\$97/mt from Sorriso to Santos + \$91.36/mt from Sorriso to Paranaguá).

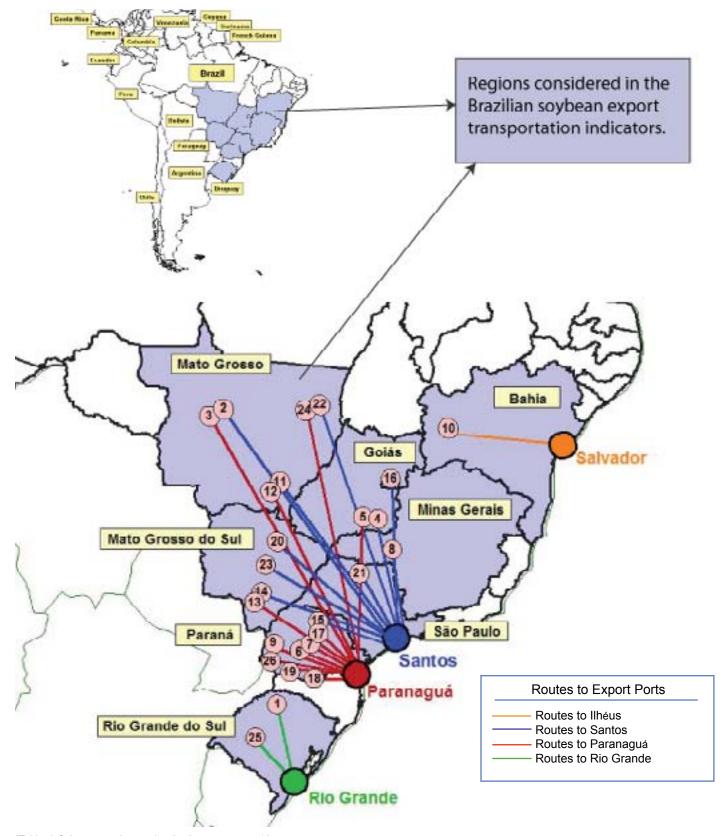
### Acknowledgments

The author would like to acknowledge Mariano Marques (Companhia Nacional de Abastecimento, CONAB), Francisco P. Magalhães Gomes, (National Agency of Inland Transportation, ANTT), Rodrigo Vilaça and Ellen Capistrano Martins (National Association of Railroads, ANTF), Curt Reynolds (USDA, Foreign Agricultural Service) for providing regional information and maps of Brazil. Comments and critiques by Keith Menzie and David Stallings (USDA, Office of the Chief Economist), Mark Ash (USDA, Economic Research Service), and Sergio Barros (USDA, Foreign Agricultural Service) are greatly appreciated. The support provided by Alan Hrapsky, Fred Giles, Irene Mota, Priscila Ming, and Julie Morin (USDA, Foreign Agricultural Service) is gratefully acknowledged. The author would also like to thank Michael D. Smith, editor, and Jessica Ladd, graphic designer.



State and A	bbreviation	Population:	190,755,799
Acre (AC) Alagoas (AL) Amapá (AP) Amazonas (AM) Bahia (BA) Ceará (CE) Distrito Federal (DF) Espírito Santo (ES) Goiás (GO) Maranhão (MA) Mato Grosso (MT) Mato Grosso do Sul (MS) Minas Gerais (MG)	Paraíba (PB) Paraná (PR) Pernambuco (PE) Piauí (PI) Rio de Janeiro (RJ) Rio Grande do Norte (RN) Rio Grande do Sul (RS) Rondônia (RO) Roraima (RR) Santa Catarina (SC) São Paulo (SP) Sergipe (SE) Tocantins (TO)	Urban: Rural: Area: Languages:	(2010 Census, Instituto Brasileiro de Geografia e Estatística (IBGE)) 160,925,792 29,830,007 8,514,877 sq km Portuguese (official), Spanish, English, French

Pará (PA)



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

<sup>1</sup>Table defining routes by number is shown on page 16 <sup>2</sup>Regions comprised about 81 percent of Brazilian soybean production, 2009 Source: USDA/AMS & ESALQ - University of São Paulo (USP), Brazil

### 2010 Summary

In 2010, Brazilian soybean transportation costs to Shanghai, China, as a percentage of total landed costs increased 16-18 percent compared with 2009 due to an increase in truck rates which more than offset lower farm prices. In Sorriso, North MT (the largest Brazilian soybean-producing state) transportation costs represented 39 percent of the total landed costs of shipping soybeans to Shanghai through Santos and Paranaguá, compared with 45 percent in 2006.

		Cost of	transpo	orting s	oybeans	s from E	Brazil to	Shangh	nai, Chir	na			
	2006	2007	2008	2009	2010	Percent	2006	2007	2008	2009	2010	Percent	
			US\$/mt			change 09-10			change 09-10				
			North MT	<sup>1</sup> - Santos <sup>2</sup>			Northwest RS <sup>1</sup> - Rio Grande <sup>2</sup>						
Truck	79.46	97.67	115.74	97.00	116.78	20.4	16.16	21.82	22.29	24.50	28.18	15.0	
Ocean	57.31	82.83	70.38	58.78	55.84	-5.0	55.81	81.56	72.08	59.42	58.21	-2.0	
Total transportation	136.77	180.51	186.12	155.78	172.62	10.8	71.97	103.37	94.37	83.92	86.39	2.9	
Farm price 3	164.88	233.82	358.99	324.34	318.15	-1.9	210.34	267.06	394.66	359.51	344.90	-4.1	
Landed cost	301.65	414.33	545.11	480.12	490.77	2.2	282.31	370.43	489.03	443.43	431.29	-2.7	
Transport % of landed cost	45.4	43.9	34.1	32.6	38.6	18.4	25.2	28.1	19.4	19.0	20.1	6.1	
		Nort	h Center P	R¹ - Parana	agua²		South GO <sup>1</sup> - Santos <sup>2</sup>						
Truck	21.31	32.36	33.60	27.37	34.51	26.1	43.56	50.47	55.33	50.83	64.71	27.3	
Ocean	56.31	80.81	71.66	59.00	58.92	-0.1	57.31	82.83	70.38	58.78	55.84	-5.0	
Total transportation	77.62	113.18	105.26	86.37	93.43	8.2	100.87	133.30	125.71	109.62	120.56	10.0	
Farm price 3	213.81	281.14	399.31	372.46	350.44	-5.9	189.63	268.65	373.13	338.31	324.27	-4.2	
Landed cost	291.43	394.32	504.56	458.83	443.87	-3.3	290.50	401.95	498.84	447.93	444.82	-0.7	
Transport % of landed cost	26.5	28.9	21.0	18.9	21.2	12.2	34.6	33.5	25.4	24.6	27.4	11.4	

<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) www.conab.gov.br

## 2010 Summary

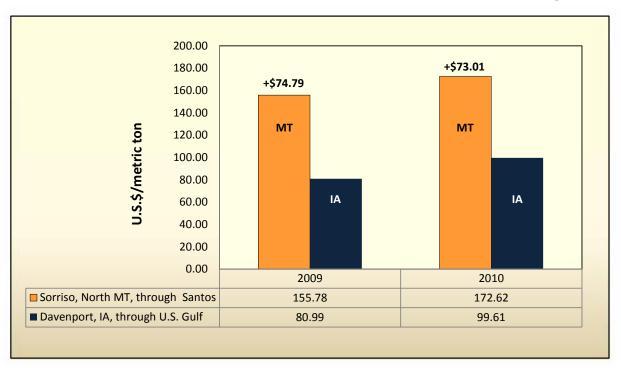
In 2010, Brazilian soybean transportation costs from South Goiás (GO), Mato Grosso (MT), Paraná (PR) and Rio Grande do Sul (RS) to Hamburg, Germany, as a percentage of total landed costs increased 13-19 percent from a year earlier.

		Cost of	transpo	rting so	ybeans	from B	razil to I	lambur	g, Germ	any		
	2006	2007	2008	2009	2010	Percent	2006	2007	2008	2009	2010	Percent
			US\$/mt			change 09-10			change 09-10			
			North MT	- Santos <sup>2</sup>				Nor	thwest RS	- Rio Grai	nde²	
Truck	79.46	97.67	115.74	97.00	116.78	20.4	16.16	21.82	22.29	24.50	28.18	15.0
Ocean	46.76	73.01	52.36	32.48	33.63	3.5	45.03	71.73	54.30	33.79	36.03	6.6
Total transportation	126.22	170.68	168.10	129.48	150.40	16.2	61.18	93.55	76.60	58.30	64.21	10.1
Farm price 3	164.88	233.82	358.99	324.34	318.15	-1.9	210.34	267.06	394.66	359.51	344.90	-4.1
Landed cost	291.11	404.50	527.09	453.82	468.55	3.2	271.53	360.61	471.26	417.80	409.11	-2.1
Transport % of landed cost	43.4	42.5	31.6	28.7	32.6	13.7	22.3	26.1	16.1	14.0	15.8	13.1
		Nort	h Center P	R <sup>1</sup> - Parana	agua²		South GO <sup>1</sup> - Santos <sup>2</sup>					
Truck	21.31	32.36	33.60	27.37	34.51	26.1	43.56	50.47	80.61	50.83	64.71	27.3
Ocean	45.76	71.05	53.81	33.34	35.08	5.2	46.76	73.01	52.36	32.48	33.63	3.5
Total transportation	67.07	103.42	87.41	60.71	69.59	14.6	90.32	123.48	132.97	83.32	98.34	18.0
Farm price 3	213.81	281.14	399.30	372.46	350.44	-5.9	189.63	268.65	358.99	338.31	324.27	-4.2
Landed cost	280.88	384.56	486.71	433.17	420.03	-3.0	279.96	392.12	491.97	421.63	422.61	0.2
Transport % of landed cost	23.8	27.0	17.9	14.1	16.8	19.1	32.2	31.8	26.9	19.8	23.6	18.9

<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) www.conab.gov.br

In 2010, it cost \$73.01 more per metric ton to ship soybeans from Sorriso, North Mato Grosso (MT) to Shanghai, China, than from Davenport, IA. Sorriso is located 1,190 miles from the port of Santos. Davenport is about 900, 908, and 1,343 miles from the Port of New Orleans by truck, rail, and barge, respectively.





In 2010, the cost of shipping a metric ton of soybeans from Cruz Alta, Northwest Rio Grande do Sul (RS), to Shanghai, China, cost \$13.22 less than from Davenport, IA. The distance from Cruz Alta to the port of Rio Grande is 288 miles.

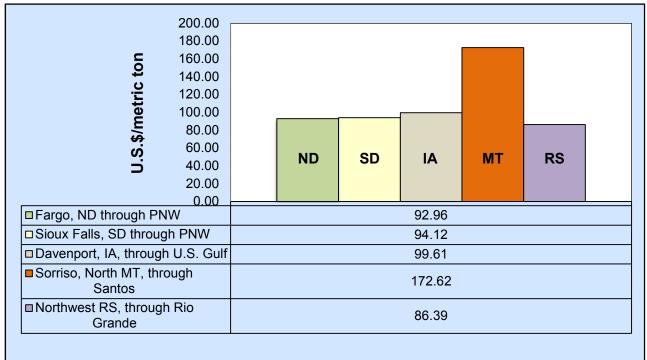
### Transportation cost differences between Rio Grande do Sul (RS) and Iowa (IA) to Shanghai, China



### 2010 Summary

During 2010, Sorriso, North MT, soybean shippers to Shanghai paid \$73-\$80 more than selected U.S. shippers and almost double the transportation cost paid by Cruz Alta, RS, shippers.

### Transportation cost differences between selected Brazil-United States Routes to Shanghai, China, 2010



Source: USDA/AMS

In 2010, truck rates (valued in reais) from Sorriso, North Mato Grosso (MT), to Santos and Paranaguá increased 7 and 8 percent, respectively. Truck rates from Cruz Alta, Rio Grande do Sul (RS) to Rio Grande increased about 3 percent.

Truck rates for selected Brazilian soybean export routes, 2005-2010												
Route	Origin <sup>1</sup>	Destination	Distance	2005	2006	2007	2008	2009	2010	Percent		
#	(reference city)	Destination	(miles) <sup>2</sup>		F		Change 09-10					
1	Northwest RS3(Cruz Alta)	Rio Grande	288	31.25	35.09	42.83	39.75	48.32	49.58	2.61		
2	North MT(Sorriso)	Santos	1190	191.83	172.90	190.37	206.25	191.73	205.40	7.13		
3	North MT(Sorriso)	Paranaguá	1262	188.40	169.84	171.59	196.05	180.30	195.09	8.20		
4	South GO(Rio Verde)	Santos	587	90.56	94.74	98.45	99.16	100.36	113.85	13.45		
6	North Center PR(Londrina)	Paranaguá	268	52.26	46.35	62.89	60.78	54.50	60.70	11.36		
11	Southeast MT(Primavera do Leste)	Santos	901	143.14	125.29	135.70	144.86	147.22	164.18	11.52		

<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>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

In 2010, selected Brazilian export truck routes saw proportionally higher increases in transportation costs in U.S. dollars due to the appreciation of the Brazilian Real (R\$) against the U.S. dollar. In 2010, the real appreciated about 12 percent against the dollar, from R\$1.9977 per US\$1.00 to R\$1.7595. This is the largest annual gain in the value of the real against the U.S. dollar from the dollar peak of 2005 of R& 2.4352 per U.S. dollar.

Truck rates for selected Brazilian soybean export routes, 2005-2010												
Route	Origin <sup>1</sup>	Destination	Distance	2005	2006	2007	2008	2009	2010	Percent		
#	(reference city)	Destination	(miles)²			US\$/me	Change 09-10					
1	Northwest RS <sup>3</sup> (Cruz Alta)	Rio Grande	288	12.84	16.16	21.82	22.29	24.50	28.18	15.00		
2	North MT (Sorriso)	Santos	1190	79.10	79.46	97.67	115.74	97.00	116.78	20.39		
3	North MT (Sorriso)	Paranaguá	1262	77.64	78.05	88.05	109.90	91.36	110.94	21.44		
4	South GO (Rio Verde)	Santos	587	37.59	43.56	50.47	55.33	50.83	64.71	27.30		
6	North Center PR (Londrina)	Paranaguá	268	21.52	21.31	32.36	33.60	27.37	34.51	26.11		
11	Southeast MT (Primavera do Leste)	Santos	901	58.95	57.56	69.58	80.61	74.39	93.41	25.56		

<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>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

The Brazilian soybean export transportation cost index increased nearly 23 percent in 2010. The cost of shipping a metric ton (mt) of soybeans 100 miles by truck increased from \$8.74 in 2009 to \$10.74 in 2010.

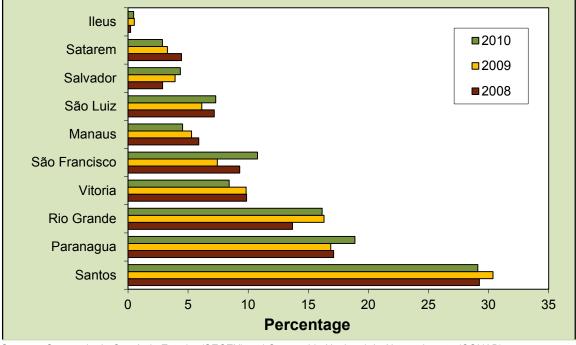


### Brazilian soybean export truck cost index

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

### 2010 Summary

Brazil is the second largest soybean export country after the United States. In 2010, Santos was the largest Brazilian soybean export port followed by Paranaguá and Rio Grande.



### Brazil soybean exports by port

In 2010, ocean rates from the Port of Santos to Shanghai, China, steadily increased throughout the year but still remained 5 percent below 2009 rates, averaging \$55.84/mt. Ocean rates to Hamburg hit a peak of \$36.17/mt in the 2nd quarter and steadily declined in the 3rd and 4th quarter, ranging from \$31-\$36/mt.

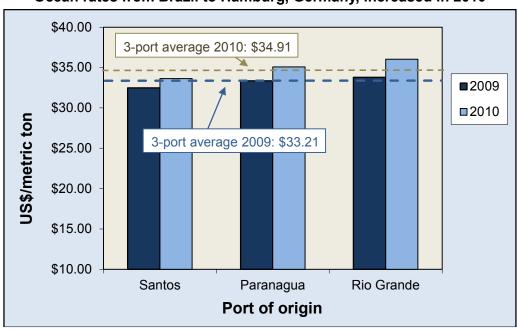




Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

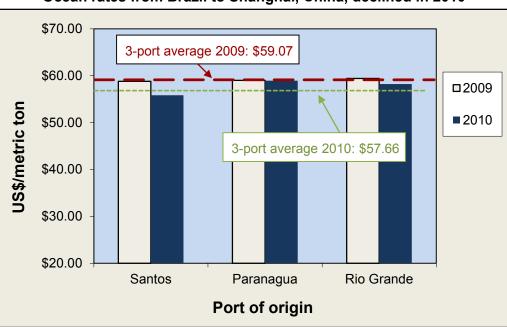
Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

The cost to ship 1 mt of soybeans from Brazil to Hamburg by ocean-going vessel increased on average 5 percent from \$33.21/mt to \$34.91/mt.



Ocean rates from Brazil to Hamburg, Germany, increased in 2010

In 2010, the cost to ship 1 mt of soybeans from Brazil to Shanghai by ocean vessel fell on average 2 percent from \$59.07/mt to \$57.66/mt.

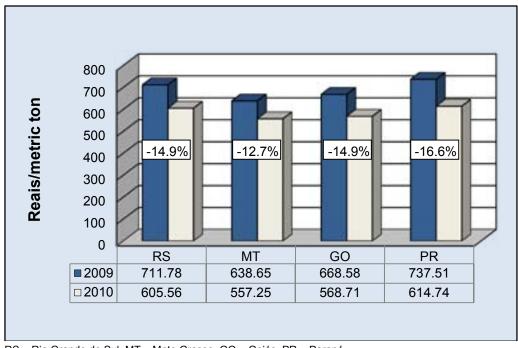


Ocean rates from Brazil to Shanghai, China, declined in 2010

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

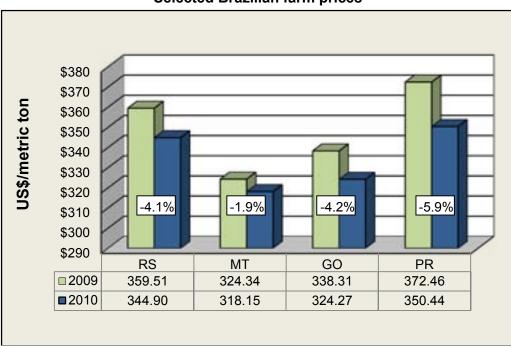
### 2010 Summary

Farm prices in the Brazilian Real (R\$) decreased 16.6 percent in Paraná (PR) in 2010. However, when farm prices are measured in U.S. dollar, they decreased proportionally less, 5.9 percent, from a year earlier, due to the appreciation of the real against the U.S. dollar.



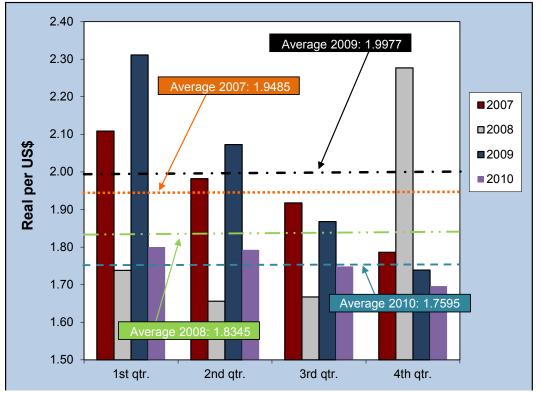


RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná Source: Companhia Nacional de Abastecimento (CONAB)



Selected Brazilian farm prices

RS = Rio Grande do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná Source: Companhia Nacional de Abastecimento (CONAB) In 2010, the Brazilian Real (R\$) appreciated 11.9 percent against the US\$ compared with 2009, from R\$1.9977 per US\$1.00 to R\$1.7595.

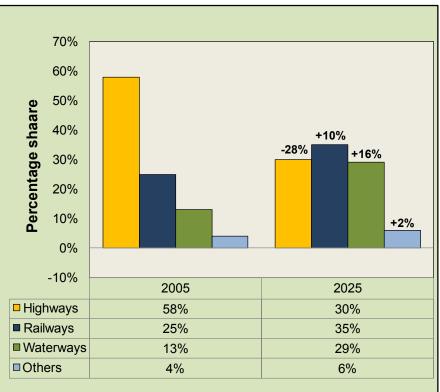




Source: Banco Central do Brasil

### Transportation Infrastructural Developments

The Brazilian government plans to change the current cargo transportation matrix by developing an integrated intermodal system. The intention is that within 15 to 20 years, railways' participation will increase from 25 to 35 percent; waterways from 13 to 29 percent; and truck shipments will be reduced by 28 percent, from 58 to 30 percent. To modify the transportation matrix, in January 2007, the Brazilian government created the Growth Acceleration Plan (PAC) to promote sustainable social and economic development by generating employment, income, and reducing regional inequalities. During the same year, the PAC was integrated into the National Plan of Logistic and Transportation (PNLT). The PNLT is executed through the Ministry of Transportation and Defense allocating funds in 3 phases from 2008 to 2023.

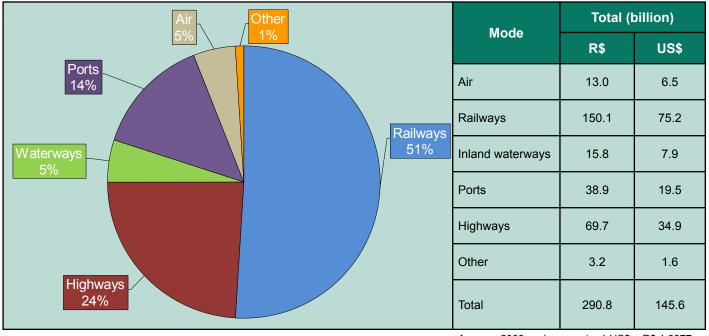


### Brazil modal share for general cargo, 2005-2025

Source: Brazil Ministry of Transportation, National Plan of Logistic & Transportation (PNLT)

National Logistics and Transportation Program (PNLT), timeframe 2008 — after 2015, billions											
Phases	Total (k	% share									
r nases	R\$	US\$	70 share								
I: 2008-2011	109.2	54.7	37.55								
II: 2012-2015	84.3	42.2	28.99								
III: 2015-2023	97.3	48.7	33.46								
Total	290.8	145.6	100								

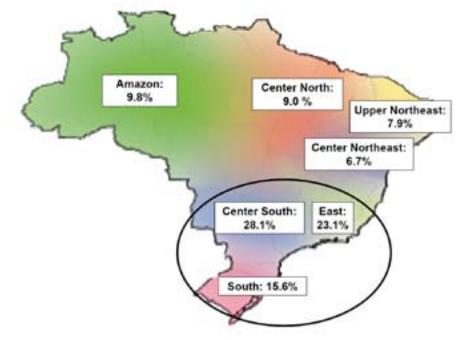
\*Average 2009 exchange rate: 1 US\$ = R\$ 1.9977 Source: Brazilian Ministry of Transportation Of the US\$ 145.6 billion to be allocated to the logistic sector, about 51 percent of the funds will be allocated to the railway system, totaling about US\$ 75.2 billion.



### National Logistics and Transportation Program (PNLT), allocations by mode, 2008-2023

Average 2009 exchange rate: 1 US\$ = R\$ 1.9977 Source: Brazil Ministry of Transportation

Two-thirds of the funds will be allocated in the Center-South, East, and South regions.



### PNLT allocation by logistic vectors

Source: Brazil Ministry of Transportation

### Transportation Infrastructural Developments

US\$ 7.8 billion are assigned to improve the inland waterways: 61 percent of the funds will be allocated to improve the inland waterways in the Amazon and Center North regions; 62 percent of the port funds will be allocated to improve the ports in the East and Center South; and 34 percent of highway funds will be allocated to improve the highway system of the Amazon and South regions.

	PNLT — Transportation mode investments by logistic vectors, and % of total												
Mode	Amazon	Center- North	Center- South	East	Center Northeast	Upper Northeast	South	Total					
Air	5.27	6.56	28.20	20.81	2.76	25.04	11.35	100					
Railways	6.82	6.24	37.42	24.18	5.89	4.54	14.92	100					
Inland waterways	31.34	29.67	12.98	9.57	1.73	1.02	13.69	100					
Ports	2.61	8.69	20.84	41.50	4.03	5.33	17.00	100					
Highways	16.50	9.11	15.47	14.55	12.01	14.40	17.96	100					
Other	-	49.30	24.33	7.18	0.45	16.50	2.50	100					
% of Brazil	9.9	9.2	11.3	9.6	20.4	22.7	16.9	100					

\*Average 2009 exchange rate: 1 US\$ = R\$ 1.9977

Source: Brazilian Ministry of Transportation

	Quarterly costs of transporting soybeans from Brazil to Shanghai, China											
			2010					2010				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg		
		Nort	h MT <sup>1</sup> - San US\$/mt	itos <sup>2</sup>			North	MT <sup>1</sup> - Parar US\$/mt	nagua²			
Truck	113.10	113.73	120.16	120.12	116.78	104.43	109.74	114.64	114.64 114.96			
Ocean	52.33	55.08	58.17	57.79	55.84	52.50	58.58	63.10	61.50	58.92		
Total transportation	165.43	168.81	178.33	177.91	172.62	156.93	168.32	177.74	176.46	169.86		
Farm price <sup>3</sup>	261.05	269.58	328.51	413.46	318.15	261.05	269.58	328.51	413.46	318.15		
Landed cost	426.48	438.39	506.83	591.37	490.77	417.98	437.90	506.25	589.92	488.01		
Transport % of landed cost	38.8	38.5 35.2 30.1 38.6 37.5 38.4 35.1 29.9								35.3		
		Southe	east MT¹ - S US\$/mt	antos²		North Center PR <sup>1</sup> - Paranagua <sup>2</sup> US\$/mt						
Truck	88.63	89.42	94.35	101.24	93.41	31.87	35.11	36.53	34.53	34.51		
Ocean	52.33	55.08	58.17	57.79	55.84	52.50	58.58	63.10	61.50	58.92		
Total transportation	140.96	144.50	152.52	159.03	149.26	84.37	93.69	99.63	96.03	93.43		
Farm price <sup>3</sup>	261.05	269.58	328.51	413.46	318.15	325.22	300.32	350.41	425.79	350.44		
Landed cost	402.01	414.08	481.03	572.49	467.41	409.60	394.01	450.04	521.82	443.87		
Transport % of landed cost	35.1	34.9	31.7	27.8	32.4	20.6	23.8	22.1	18.4	21.2		
		Sout	th GO¹ - Sar US\$/mt	ntos²			Northwe	st RS <sup>1</sup> - Rio US\$/mt	Grande <sup>2</sup>			
Truck	61.87	64.80	67.86	64.32	64.71	24.84	30.14	29.24	28.50	28.18		
Ocean	52.33	55.08	58.17	57.79	55.84	53.00	58.75	63.27	57.83	58.21		
Total transportation	114.20	119.88	126.03	122.11	120.56	77.84	88.89	92.51	86.33	86.39		
Farm price <sup>3</sup>	309.89	271.15	315.43	400.62	324.27	331.49	304.36	342.98	400.78	344.90		
Landed cost	424.09	391.03	441.46	522.73	444.82	409.33	393.25	435.49	487.10	431.29		
Transport % of landed cost	26.9	30.7	28.5	23.4	27.4	19.0	22.6	21.2	17.7	20.1		

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

<sup>2</sup>Export ports represent 60 percent of total soybean exports; <sup>3</sup>Companhia Nacional de Abastecimento (CONAB) Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

	Quarterly costs of transporting soybeans from Brazil to Hamburg, Germany												
			2010					2010					
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg			
		Nort	th MT <sup>1</sup> - San US\$/mt				North	MT <sup>1</sup> - Parar US\$/mt	nagua²				
Truck	113.10	113.73	120.16	120.12	116.78	104.43	109.74	114.64	114.96	110.94			
Ocean	32.25	36.17	34.42	31.67	33.63	31.83	38.08	36.92	33.50	35.08			
Total transportation	145.35	149.90	154.58	151.79	150.40	136.26	147.82	151.56	148.46	146.03			
Farm price 3	261.05	269.58	328.51	413.46	318.15	261.05	269.58	328.51	413.46	318.15			
Landed cost	406.40	419.48	483.08	565.25	468.55	397.31	417.40	480.07	561.92	464.18			
Transport % of landed cost	35.8	35.7	32.0	26.9	32.6	34.3	31.9						
		South	east MT¹ - S US\$/mt	antos²		North Center PR <sup>1</sup> - Paranagua <sup>2</sup> US\$/mt							
Truck	88.63	89.42	94.35	101.24	93.41	31.87	35.11	36.53	34.53	34.51			
Ocean	32.25	36.17	34.42	31.67	33.63	31.83	38.08	36.92	33.50	35.08			
Total transportation	120.88	125.59	128.77	132.91	127.04	63.70	73.19	73.45	68.03	69.59			
Farm price 3	261.05	269.58	328.51	413.46	318.15	325.22	300.32	350.41	425.79	350.44			
Landed cost	381.93	395.17	457.28	546.37	445.19	388.93	373.51	423.86	493.82	420.03			
Transport % of landed cost	31.7	31.8	28.2	24.3	29.0	16.4	19.6	17.3	13.8	16.8			
		Sout	th GO¹ - Sar US\$/mt	ntos²			Northwe	st RS <sup>1</sup> - Rio US\$/mt	Grande <sup>2</sup>				
Truck	61.87	64.80	67.86	64.32	64.71	24.84	30.14	29.24	28.50	28.18			
Ocean	32.25	36.17	34.42	31.67	33.63	33.50	39.00	37.08	34.54	36.03			
Total transportation	94.12	100.97	102.28	95.99	98.34	58.34	69.14	66.32	63.04	64.21			
Farm price 3	309.89	271.15	315.43	400.62	324.27	331.49	304.36	342.98	400.78	344.90			
Landed cost	404.01	372.12	417.71	496.61	422.61	389.83	373.50	409.30	463.81	409.11			
Transport % of landed cost	23.3	27.1	24.5	19.3	23.6	15.0	18.5	16.2	13.6	15.8			

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

<sup>2</sup>Export ports represent 60 percent of total soybean exports; <sup>3</sup>Companhia Nacional de Abastecimento (CONAB) Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Source: USDA/AMS

Truck rates for selected Brazilian soybean export transportation routes, 2010												
Route #	Origin¹ (reference city)	Destination	Distance (miles) <sup>2</sup>	Share (%)³	Quarte 1st 	2nd	ght Pric 3rd 0 miles	4th	Avg 2010			
1	Northwest RS(Cruz Alta)	Rio Grande	288	11.86	8.62	10.47	10.15	9.89	9.78			
2	North MT(Sorriso)	Santos	1190	13.45	9.50	9.56	10.10	10.09	9.81			
3	North MT(Sorriso)	Paranaguá	1262	12.67	8.27	8.70	9.08	9.11	8.79			
4	South GO(Rio Verde)	Santos	587	6.59	10.54	11.04	11.56	10.96	11.02			
5	South GO(Rio Verde)	Paranaguá	726	5.32	8.52	9.07	9.16	8.87	8.90			
6	North Center PR(Londrina)	Paranaguá	268	3.32	11.89	13.10	13.63	12.89	12.88			
7	Western Center PR(Mamborê)	Paranaguá	311	3.14	8.38	9.99	11.54	11.51	10.36			
8	Triangle MG(Uberaba)	Santos	339	3.50	14.68	15.82	16.97	16.83	16.08			
9	West PR(Assis Chateaubriand)	Paranaguá	377	4.06	8.97	10.79	11.61	12.62	11.00			
10	West Extreme BA(São Desidério)	Salvador	535	5.19	10.64	11.21	10.41	8.83	10.27			
11	Southeast MT(Primavera do Leste)	Santos	901	3.74	9.84	9.92	10.47	11.24	10.37			
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.46	8.96	8.71	8.91	9.38	8.99			
13	Southwest MS(Maracaju)	Paranaguá	612	2.76	10.82	10.75	10.93	10.58	10.77			
14	Southwest MS(Maracaju)	Santos	652	2.59	10.83	10.65	11.24	11.01	10.93			
15	West PR(Assis Chateaubriand)	Santos	550	0.00	11.91	11.88	12.70	13.59	12.52			
16	East GO(Cristalina)	Santos	585	1.93	10.71	11.42	11.46	11.28	11.22			
17	North PR(Cornélio Procópio)	Paranaguá	306	1.36	9.44	10.16	11.88	10.68	10.54			
18	Eastern Center PR(Castro)	Paranaguá	130	2.34	16.71	20.11	21.17	21.66	19.91			
19	South Center PR(Guarapuava)	Paranaguá	204	2.21	14.61	16.44	17.33	16.84	16.30			
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.08	8.92	9.94	10.22	9.60	9.67			
21	Ribeirão Preto SP(Guairá)	Santos	314	0.00	12.74	13.15	13.65	14.20	13.44			
22	Northeast MT(Canarana)	Santos	950	2.27	11.31	10.65	11.10	12.30	11.34			
23	East MS(Chapadão do Sul)	Santos	607	0.00	9.97	10.81	11.13	10.71	10.65			
24	Northeast MT(Canarana)	Paranaguá	1075	2.01	9.95	10.35	10.91	10.71	10.48			
25	Western Center RS(Tupanciretã)	Rio Grande	273	2.36	8.44	9.44	9.32	9.04	9.06			
26	Southwest PR(Chopinzinho)	Paranaguá	291	1.79	12.20	13.31	14.03	13.95	13.37			
	Weighted average		578	100.0	9.98	10.77	11.18	11.03	10.74			

<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

#### Truck rates for selected Brazilian soybean export transportation routes, 2005-2010

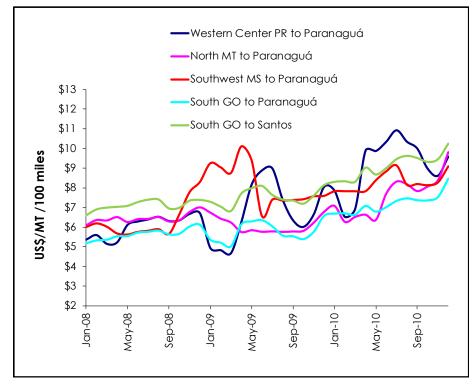
Route	Origin <sup>1</sup>		Distance	Share		Qualit	y Freigl	ht Price	(US\$)		Percent	
#	(reference city)	Destination	(miles) <sup>2</sup>	(%) <sup>3</sup>	2005	2006	2007	2008	2009	2010	Change 2009-10	
							(per 10	) miles)	4		2009-10	
1	Northwest RS5(Cruz Alta)	Rio Grande	288	10.81	4.46	5.61	7.58	7.74	8.51	9.78	15.00	
2	North MT(Sorriso)	Santos	1190	13.02	6.65	6.68	8.21	9.73	8.15	9.81	20.39	
3	North MT(Sorriso)	Paranaguá	1262	12.27	6.15	6.18	6.98	8.71	7.24	8.79	21.44	
4	South GO(Rio Verde)	Santos	587	6.26	6.40	7.42	8.60	9.43	8.66	11.02	27.30	
5	South GO(Rio Verde)	Paranaguá	726	5.06	5.11	5.78	6.73	7.65	7.00	8.90	27.22	
6	North Center PR(Londrina)	Paranaguá	268	4.08	8.03	7.95	12.08	12.54	10.21	12.88	26.11	
7	Western Center PR(Mamborê)	Paranaguá	311	3.63	5.72	6.68	8.62	9.38	9.33	10.36	10.96	
8	Triangle MG(Uberaba)	Santos	339	3.18	9.48	10.30	12.20	13.87	13.18	16.08	21.95	
9	West PR(Assis Chateaubriand)	Paranaguá	377	6.21	5.82	6.76	7.55	8.07	8.27	11.00	33.02	
10	West Extreme BA(São Desidério)	llhéus	544	5.69	7.28	8.08	9.78	11.52	9.75	10.27	5.32	
11	Southeast MT(Primavera do Leste)	Santos	901	2.89	6.54	6.39	7.72	8.95	8.26	10.37	25.56	
12	Southeast MT(Primavera do Leste)	Paranaguá	975	2.67	6.06	5.95	7.16	8.02	7.32	8.99	22.83	
13	Southwest MS(Maracaju)	Paranaguá	612	3.34	5.83	8.16	8.05	7.94	7.91	10.77	36.18	
14	Southwest MS(Maracaju)	Santos	652	3.14	6.01	8.00	7.72	8.11	8.26	10.93	32.30	
15	West PR(Assis Chateaubriand)	Santos	550	0.00	5.84	7.20	8.32	9.87	11.02	12.52	13.61	
16	Western Center RS(Tupanciretã)	Rio Grande	273	1.17	na	na	na	10.36	8.86	11.22	26.56	
17	Southwest PR(Chopinzinho)	Paranaguá	291	1.87	na	na	na	9.21	9.39	10.54	12.23	
18	Eastern Center PR(Castro)	Paranaguá	130	2.47	10.12	9.55	16.24	13.42	12.59	19.91	58.18	
19	South Center PR(Guarapuava)	Paranaguá	204	2.23	8.33	9.56	10.98	13.66	11.27	16.30	44.70	
20	North Center MS(São Gabriel do Oeste)	Santos	720	1.83	5.47	6.21	7.02	7.58	7.63	9.67	26.74	
21	Ribeirão Preto SP(Guairá)	Santos	314	0.00	7.55	8.91	10.82	12.54	11.09	13.44	21.17	
22	Northeast MT(Canarana)	Santos	950	2.12	7.35	7.87	8.90	10.69	8.99	11.34	26.09	
23	Assis SP(Palmital)	Santos	285	0.00	na	na	na	8.73	8.16	10.65	30.52	
24	Northeast MT(Canarana)	Paranaguá	1075	1.87	na	na	na	9.08	7.49	10.48	39.87	
25	Western Center RS(Tupanciretã)	Rio Grande	273	2.25	na	na	na	11.23	8.38	9.06	8.05	
26	Southwest PR(Chopinzinho)	Paranaguá	291	1.98	na	na	na	12.38	10.51	13.37	27.21	
	Average		626	100.0	na	na	na	9.75	8.74	10.74	22.91	

<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

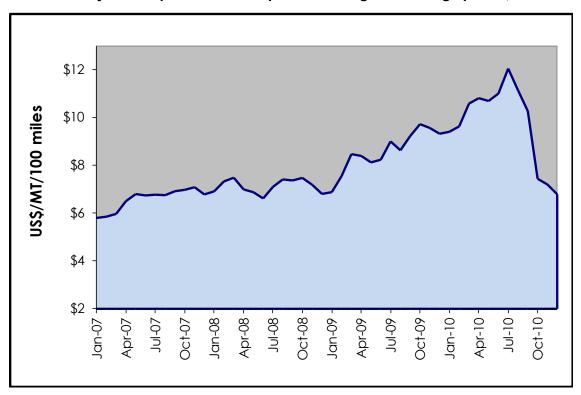
<sup>3</sup>Share is measured as a percentage of total production

<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

### 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, 2007/10

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)	Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)		
Jan-05	5.80	40.8	100.00	Jul-08	12.05	9.5	207.73		
Feb-05	5.85	0.9	100.90	Aug-08	11.14	-7.6	192.00		
Mar-05	5.97	2.0	102.92	Sep-08	10.27	-7.8	177.00		
Apr-05	6.51	9.0	112.14	Oct-08	7.44	-27.5	128.24		
May-05	6.80	4.5	117.22	Nov-08	7.20	-3.2	124.13		
Jun-05	6.74	-0.9	116.22	Dec-08	6.79	-5.7	117.11		
Jul-05	6.77	0.5	116.76	Jan-09	6.91	1.7	119.11		
Aug-05	6.75	-0.3	116.41	Feb-09	7.28	5.4	125.52		
Sep-05	6.92	2.5	119.27	Mar-09	7.65	5.1	131.89		
Oct-05	6.98	0.9	120.28	Apr-09	8.44	10.3	145.42		
Nov-05	7.09	1.6	122.15	May-09	9.56	13.3	164.72		
Dec-05	6.78	-4.3	116.95	Jun-09	9.74	2.0	167.97		
Jan-06	6.91	1.9	119.18	Jul-09	9.28	21.3	159.94		
Feb-06	7.33	6.0	126.36	Aug-09	9.29	0.1	160.16		
Mar-06	7.48	2.1	129.02	Sep-09	9.14	-1.6	157.62		
Apr-06	6.99	-6.6	120.57	Oct-09	9.32	1.9	160.66		
May-06	6.88	-1.7	118.56	Nov-09	9.22	-1.1	158.93		
Jun-06	6.62	-3.8	114.05	Dec-09	9.02	-2.2	155.48		
Jul-06	7.10	7.3	122.41	Jan-10	9.17	1.7	158.10		
Aug-06	7.41	4.4	127.79	Feb-10	9.99	8.9	172.16		
Sep-06	7.37	-0.6	127.02	Mar-10	10.77	7.8	185.67		
Oct-06	7.48	1.5	128.88	Apr-10	10.91	1.3	188.10		
Nov-06	7.19	-3.8	123.92	May-10	10.80	-1.1	186.10		
Dec-06	6.81	-5.3	117.32	Jun-10	10.61	-1.7	182.95		
Jan-07	6.88	1.1	118.60	Jul-10	10.86	2.3	187.14		
Feb-07	7.55	9.7	130.15	Aug-10	11.21	3.3	193.23		
Mar-07	8.47	12.2	146.00	Sep-10	11.46	2.2	197.57		
Apr-07	8.40	-0.9	144.76	Oct-10	11.51	0.4	198.41		
May-07	8.12	-3.3	140.05	Nov-10	10.86	-5.6	187.20		
Jun-07	8.24	1.4	141.99	Dec-10	10.72	-1.3	184.79		
Jul-07	9.00	9.3	155.20	Jan-10	9.17	1.7	158.10		
Aug-07	8.63	-4.2	148.75	Feb-10	9.99	8.9	172.16		
Sep-07	9.23	6.9	159.05	Mar-10	10.77	7.8	185.67		
Oct-07	9.72	5.4	167.61	Apr-10	10.91	1.3	188.10		
Nov-07	9.56	-1.6	164.86	May-10	10.80	-1.1	186.10		
Dec-07	9.32	-2.5	160.71	Jun-10	10.61	15.7	182.95		
Jan-08	9.40	0.9	162.12	Jul-10	10.86	2.3	187.14		
Feb-08	9.63	2.4	166.02	Aug-10	11.21	3.3	193.23		
Mar-08	10.59	9.9	182.46	Sep-10	11.46	2.2	197.57		
Apr-08	10.81	2.1	186.35	Oct-10	11.51	0.4	198.41		
May-08	10.69	-1.1	184.32	Nov-10	10.86	-5.6	187.20		
Jun-08	11.00	2.9	189.67	Dec-10	10.72	-1.3	184.79		

\*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							
	Santos	Paranaguá	Rio Grande					
2006								
1st qtr	50.13	49.13	48.63					
2nd qtr	44.80	43.80	43.30					
3rd qtr	60.98	59.98	59.48					
4th qtr	73.32	72.32	71.82					
2006 Average	57.31	56.31	55.81					
2007								
1st qtr	73.32	72.32	71.82					
2nd qtr	111.20	110.20	109.70					
3rd qtr	72.00	65.50	70.50					
4th qtr	74.81	75.22	74.20					
2007 Average	82.83	80.81	81.56					
2008								
1st qtr	64.81	66.53	67.01					
2nd qtr	80.27	80.79	81.27					
3rd qtr	72.43	74.03	74.23					
4th qtr	64.00	65.30	65.80					
2008 Average	70.38	71.66	72.08					
2009								
1st qtr	64.50	65.70	66.87					
2nd qtr	66.00	67.30	67.80					
3rd qtr	49.00	48.78	49.50					
4th qtr	55.63	54.23	53.50					
2009 Average	58.78	59.00	59.42					
2010								
1st qtr	52.33	52.50	53.00					
2nd qtr	55.08	58.58	58.75					
3rd qtr	58.17	63.10	63.27					
4th qtr	57.79	61.50	57.83					
2010 Average	55.84	58.92	58.21					

\*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)

Transportation Indicators

Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)*							
	Ports						
	Santos	Paranaguá	Rio Grande				
2005							
1st qtr	45.53	44.64	44.20				
2nd qtr	45.84	44.84	44.39				
3rd qtr	44.54	43.54	43.04				
4th qtr	56.73	55.73	55.23				
2005 Average	48.16	47.19	46.71				
2006							
1st qtr	39.51	38.51	37.06				
2nd qtr	36.91	35.91	35.41				
3rd qtr	50.24	49.24	48.74				
4th qtr	60.40	59.40	58.90				
2006 Average	46.76	45.76	45.03				
2007							
1st qtr	60.40	59.40	58.90				
2nd qtr	91.61	90.61	90.11				
3rd qtr	59.35	53.12	57.85				
4th qtr	80.67	81.08	80.06				
2007 Average	73.01	71.05	71.73				
2008							
1st qtr	57.38	58.90	59.36				
2nd qtr	71.08	72.68	73.18				
3rd qtr	48.80	50.20	50.70				
4th qtr	32.18	33.48	33.98				
2008 Average	52.36	53.81	54.30				
2009							
1st qtr	34.10	35.50	35.80				
2nd qtr	34.75	35.79	36.20				
3rd qtr	30.00	31.55	32.00				
4th qtr	31.08	30.53	31.17				
2009 Average	32.48	33.34	33.79				
2010							
1st qtr	32.25	31.83	33.50				
2nd qtr	36.17	38.08	39.00				
3rd qtr	34.42	36.92	37.08				
4th qtr	31.67	33.50	34.54				
2010 Average	33.63	35.08	36.03				

\*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



**Region/State** 

**Production\*:** 

2009-2010

(1,000 mt)

AC

**Production\*:** 

2010-2011\*\*

(1,000 mt)

	RO MT TO BA SE
% Change	MS SP MG ES
0.0	PR
35.2	2 mm
10.7	sc
71.8	RS H
11.7	P
Total: 14.8	En la companya de la comp

North								
Amazonas (AM)	0.0	0.0	0.0					
Pará (PA)	232.5	314.4	35.2					
Rondônia (RO)	384.3	425.3	10.7					
Roraima (RR)	3.9	6.7	71.8					
Tocantins (TO)	1,071.0	1,196.2	11.7					
	Total: 1,691.7	Total: 1,942.6	Total: 14.8					
Northeast								
Bahia (BA)	3,110.5	3,507.5	12.8					
Maranhão (MA)	1,330.6	1,599.7	20.2					
Piauí (PI)	868.4	1,157.0	33.2					
	Total: 5,309.5	Total: 6,264.2	Total: 18.0					
Midwest								
Distrito Federal (DF)	169.40	177.00	4.5					
Goiás (GO)	7,342.6	8,181.6	11.4					
Mato Grosso (MT)	18,766.90	20,412.20	8.8					
Mato Grosso do Sul (MS)	5,307.8	5,033.9	-5.2					
	Total: 31,586.7	Total: 33,804.7	Total: 7.0					
Southeast								
Minas Gerais (MG)	2,871.5	2,803.1	-2.4					
São Paulo (SP)	1,586.1	1,708.5	7.7					
	Total: 4,457.6	Total: 4,511.6	Total: 1.2					
South								
Paraná (PR)	14,078.7	15,424.1	9.6					
Rio Grande do Sul (RS)	10,218.8	11,621.3	13.7					
Santa Catarina (SC)	1,345.2	1,470.8	9.3					
	Total: 25,642.7	Total: 28,516.2	Total: 11.2					
Total Production:	68,688.2	75,039.3	9.25					

\*Data based on calendar year, January-December

\*\*Forecast, May 2011

Source: Companhia Nacional de Abastecimento (CONAB)

## Soybean Production

Brazil soybean supply and distribution (1,000 metric tons)									
Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
1998/99	12,900	782	31,300	615	32,697	8,912	21,645	23,382	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	24,792	657
2001/02	16,350	657	43,500	1,100	45,257	16,074	25,843	28,202	981
2002/03	18,448	981	52,000	1,124	54,105	19,987	27,796	30,320	3,798
2003/04	21,520	3,798	51,000	364	55,162	19,257	28,914	31,807	4,098
2004/05	22,917	4,098	53,000	352	57,450	22,799	29,730	32,515	2,136
2005/06	22,229	2,136	57,000	40	59,176	24,770	28,754	31,654	2,752
2006/07	20,700	2,752	59,000	108	61,860	23,805	31,511	34,445	3,610
2007/08	21,300	3,610	61,000	83	64,693	24,515	31,895	34,860	5,318
2008/09	21,700	5,318	57,800	124	63,242	28,041	30,778	33,545	1,656
2009/10	23,500	1,656	69,000	150	70,806	29,190	35,700	38,850	2,766
2010/11	24,200	2,766	74,500	25	77,291	31,550	36,400	39,750	5,991
2011/12**	25,000	5,991	72,500	50	78,541	34,000	37,150	40,600	3,941

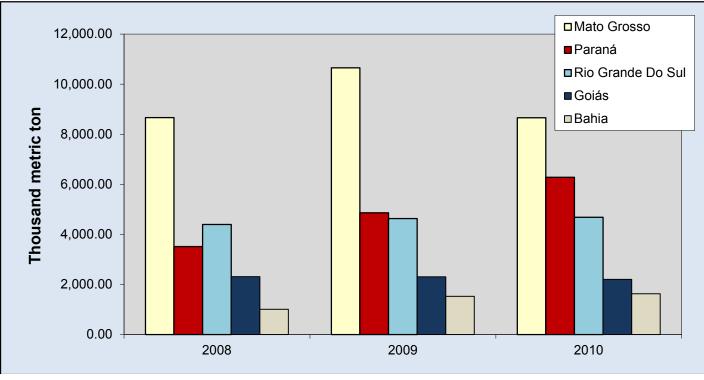
\*Data based on Brazil's local February/January Marketing Year (MY) Where February 2006 - January 2007 is the 2005/06 MY \*\*Forecast: July 12, 2011 Source: USDA/Foreign Agricultural Service/Circular Series

Exports

PA PA MT GO MS SP PR	an 9 states						
sc	State	2006	2007	2008	2009	2010	Rank
RS				metric ton			
	Mato Grosso	9,920,599	6,822,137	8,661,067	10,647,884	8,654,800	1
P	Paraná	2,891,525	3,729,772	4,395,927	4,631,059	6,280,500	2
5	Rio Grande Do Sul	3,281,005	5,503,371	3,516,357	4,858,823	4,683,900	3
	Goiás	2,800,224	2,192,407	2,311,912	2,308,431	2,203,900	4
	Bahia	448,706	708,876	951,041	1,529,468	1,632,100	5
	Mato Grosso Do Sul	1,182,096	1,065,860	1,006,343	781,844	1,367,500	6
	Maranhão	1,021,543	841,944	921,861	921,349	1,040,800	7
	São Paulo	939,202	630,970	761,981	640,583	773,100	8
	Minas Gerais	1,179,189	379,804	370,795	780,983	677,800	9
	Tocantins	633,956	434,541	551,883	557,836	677,100	10
	Santa Catarina	206,735	1,057,247	424,549	259,734	375,400	12
	Rondônia	250,120	229,107	312,364	314,403	357,100	11
	Pará	81,853	67,484	129,640	124,508	167,800	14
	Piauí	24,429	9,132	131,996	150,295	119,000	13
	Distrito Federal	57,873	30,115	38,843	47,384	33,200	15
	Others	38,918	31,008	12,931	8,113	1,200	
	Total	24,957,973	23,733,775	24,499,490	28,562,697	29,045,200	

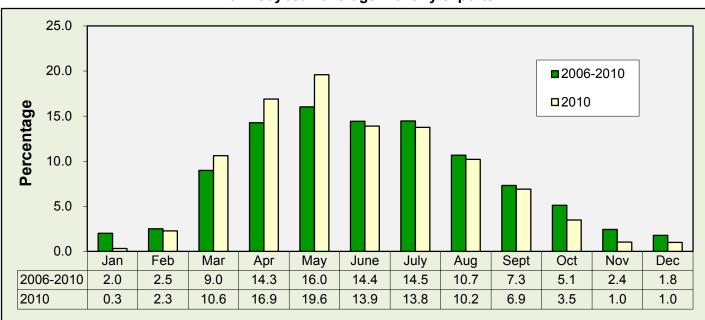
Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)/Digem/Suinf/Geint

### Exports



#### Top 5 Brazil soybean exporting states

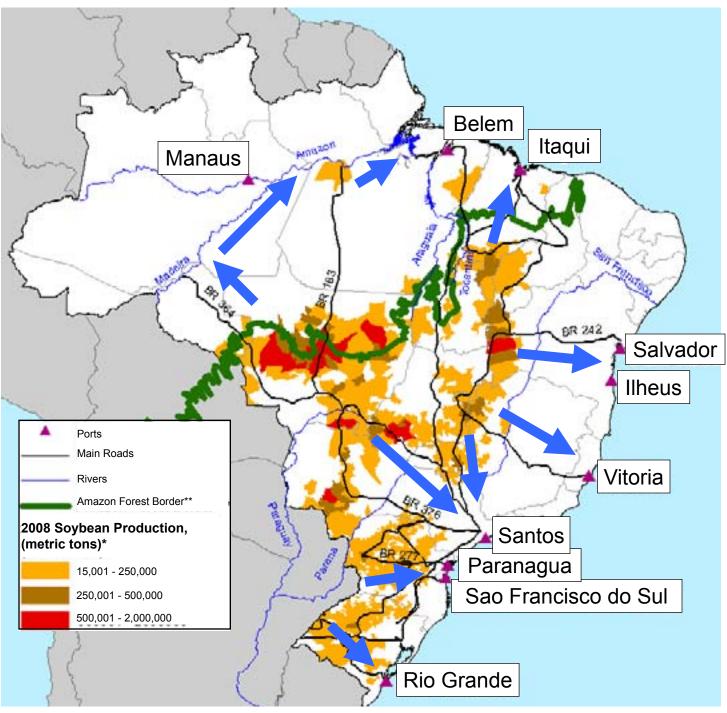
Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)



### Brazil soybean average monthly exports

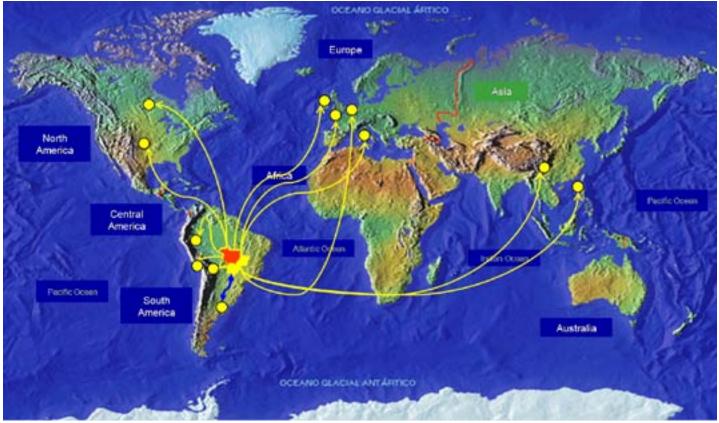
Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

### Main export routes for soybeans



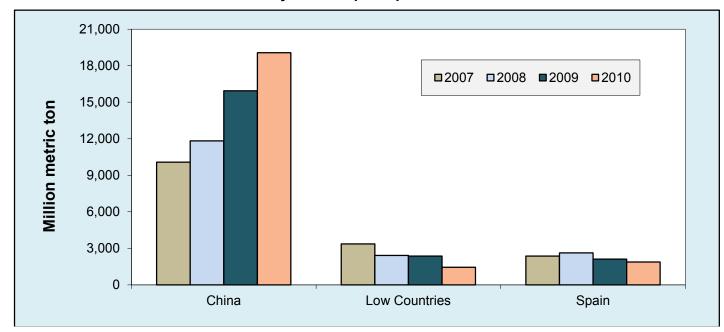
\*Companhia Nacional de Abastecimento (CONAB) \*\*World Wildlife Fund (WWF)

Source: USDA/Agricultural Marketing Service & Foreign Agricultural Service



### World export routes for Brazilian soybeans

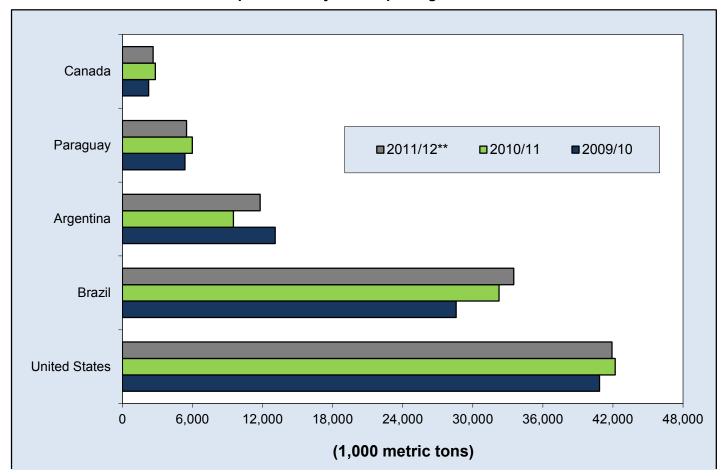
Source: State of Mato Grosso, Department of Tourism and Commerce, Caceres



### Brazil soybeans: top 3 export destinations

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

Brazil is the second largest soybean exporter country after the United States.

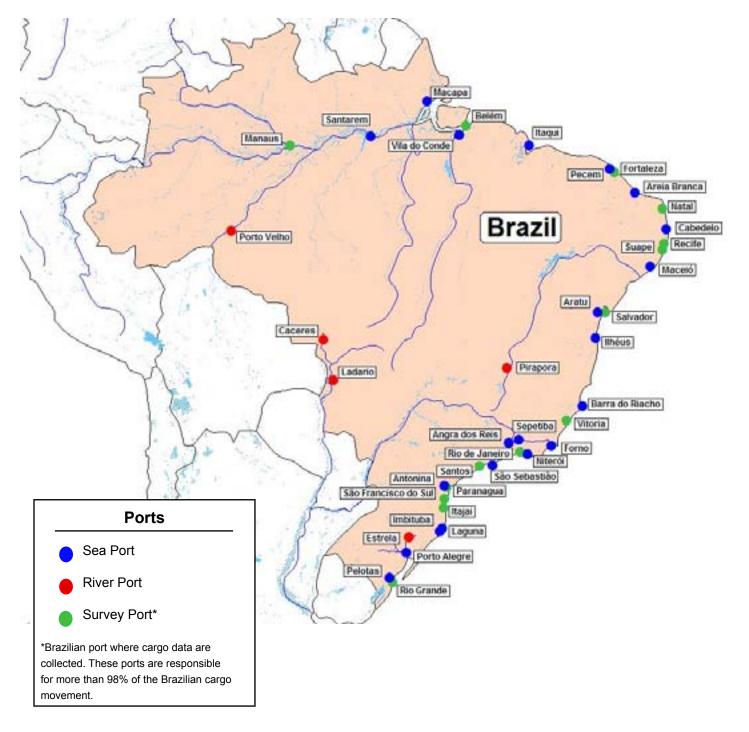


Top 5 world soybean exporting countries

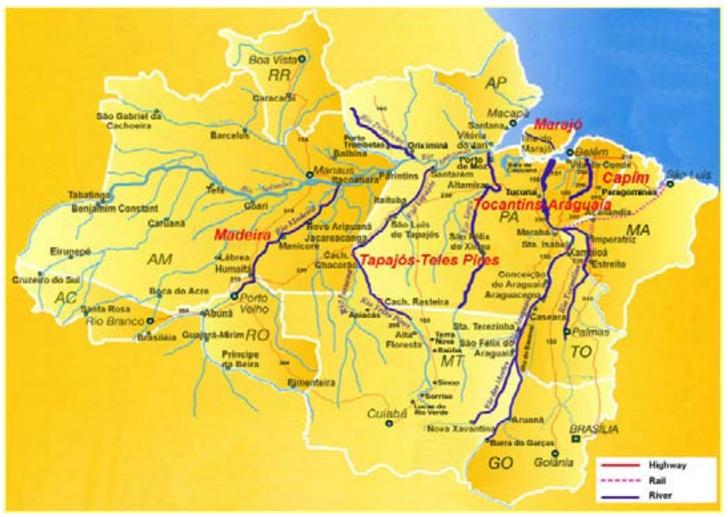
\*Forecast: May 11, 2011 Source: USDA/FAS

### **Brazilian ports**

There are 40 water and sea ports and 42 private terminals. The Port of Santos Channel is 426.4 ft wide and 42.64 ft deep. The Port of Paranaguá's entrance strip is 656 ft wide and 39.36 ft deep. It has 3 access channels. Galheta, the major access channel, extends 17.7 miles and has a width ranging from 492 to 656 ft, and a depth of 39.36 ft. The Port of Vitória's entry strip is 820 ft wide and 62.32 ft deep. Its access channel extends 4.34 miles, and is 393.6 ft wide and 36.08 ft deep.



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



#### Major rivers of the Amazonian Basin

Source: National Agency for Waterway Transportation (ANTAQ)

Brazil has 39,060 miles of river-lake surface water and 27,280 miles of navigable rivers but only 8,060 miles commercially navigated.

Brazil waterway system	
Extension	Miles
River-lake surface water	39,060
National river network	27,280
Naturally navigable waterways	17,980 (100%)
Commercial navigations	8,060 (45%)
Vessel owned	1,148

Source: Confederação Nacional do Transporte (CNT)

National Agency for Waterway Transporation (ANTAQ)

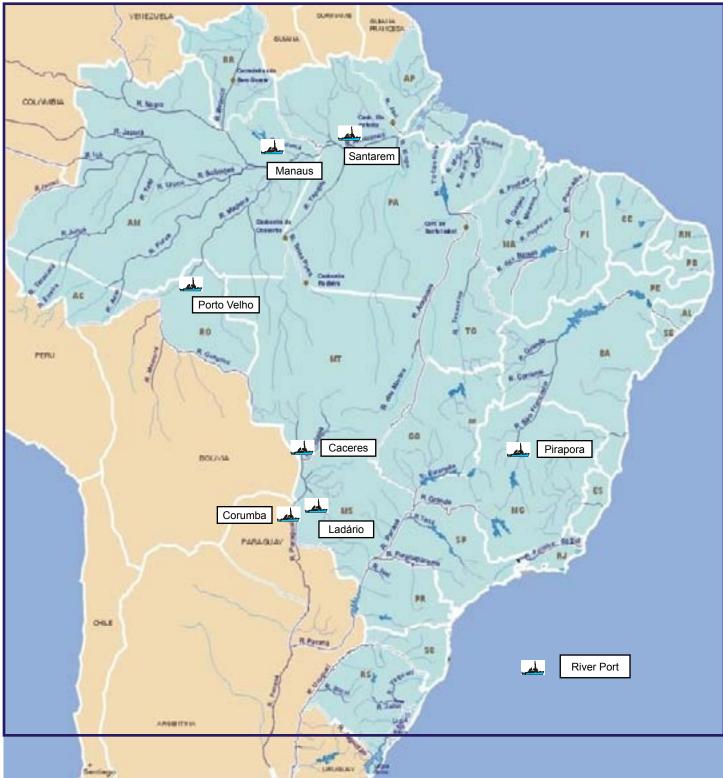
#### Brazilian river system



Source: National Agency for Waterway Transportation (ANTAQ)

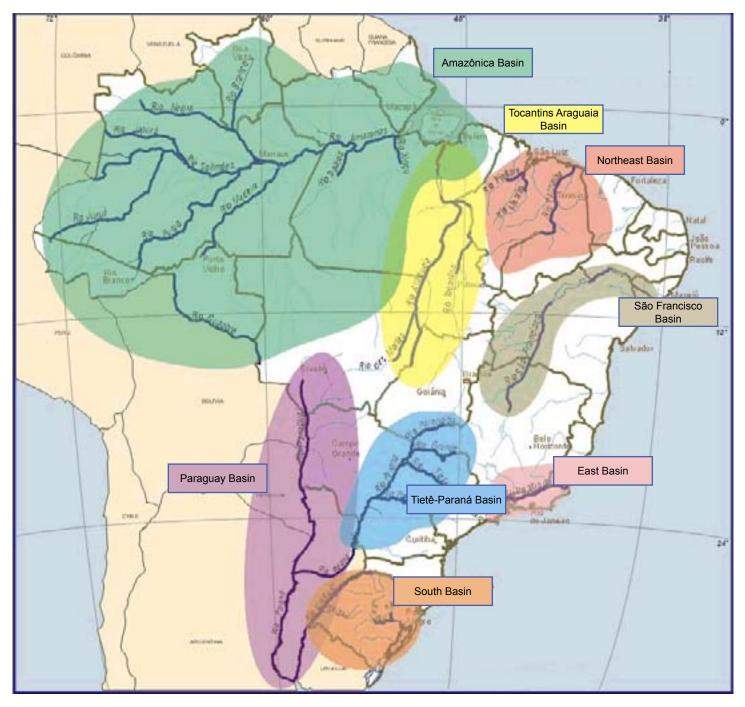
#### Brazilian river system

The Port of Manaus access channel is 1,640 ft wide and 114.8 ft deep. Porto Velho's access channel depth varies from 8.2 to 57.4 ft. The Port of Santarém's access channel is 5,904 ft wide and 49.2 ft deep.



#### Brazilian river basins

Brazil's river system comprises 8 basins: Amazônica, Nordeste, Tocantins Araguaia, São Franciso, 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



#### Brazilian multimodal transportation system

Source: Agência Nacional de Transportes Aquavárious



#### **Major Brazilian highways**

Source: Confederação Nacional do Transporte

The Brazilian highway system extends 980,198 miles with only 13 percent paved.

Braz	zil highway system (	extension in miles, 2	2010
	Paved roads	Unpaved roads	Total
Federal	38,658	8,583	47,241
Federal/State	10,547	3,728	14,276
State	66,060	70,340	136,399
County	16,633	765,649	784,142
Total	131,898	848,300	980,198
% share	13	87	100

Source: Confederação Nacional do Transporte

### **Transportation Modes**





Source: Confederação Nacional do Transporte

#### Brazilian public highways



Source: Confederação Nacional do Transporte

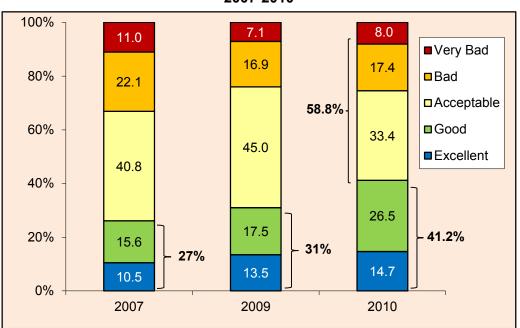


#### Brazilian private highway conditions

Source: Confederação Nacional do Transporte

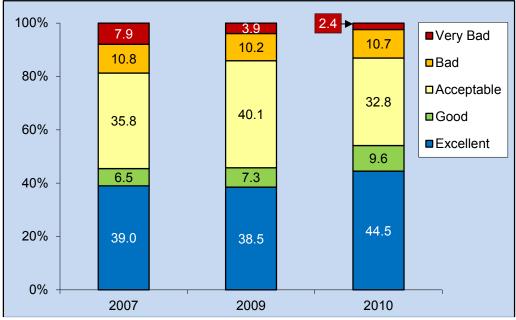
#### **Brazilian highways**

The 2010 Confederação Nacional do Transporte (CNT) survey of the overall highway condition in Brazil indicated an improvement from previous years. It shows that 41.2 percent of the roads ranged from good to excellent in 2010 compared to 26 percent in 2007. Still, 59 percent ranged from as merely acceptable or worse. The survey also shows that almost 87 percent of the paved roads were in good to excellent condition and 13 percent ranged from acceptable to very bad condition; 30 percent of traffic road signs had problems; and 88.7 percent of the roads are two lane.



# Brazilian highway conditions 2007-2010

Source: Confederação National do Transporte

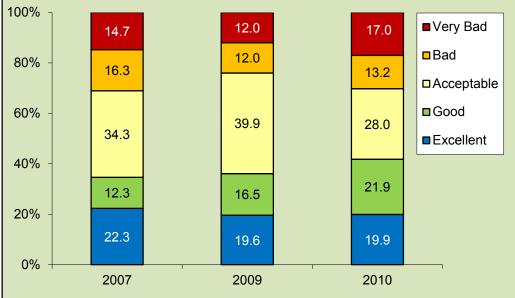


# Brazilian paved highway conditions 2007-2010

Source: Confederação National do Transporte

## **Transportation Modes**



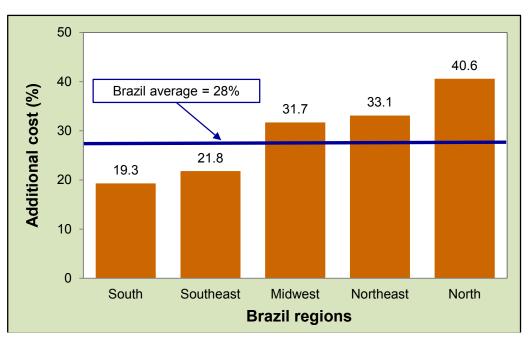


Source: Confederação National do Transporte

The Brazilian paved road conditions improved in 2010 with a significant reduction of road in critical condition with sign problems and potholes.

C	CNT—survey indicators, 2009-2010												
la dia stara	20	09	20	10	Percentage								
Indicators	Miles	Percentage	Miles	Percentage	Change								
Paved road in critical conditions (acceptable, bad, and very bad)	30,131	54.2	7,394	13.1	-75.5								
Road signs with problems	35,489	63.9	17,052	30.2	-51.9								
Road without shoulders	25,690	46.3	33,917	60.2	32.0								
Road signs covered with shrubbery	7,248	13.1	9,055	16.0	24.9								
Road segments with potholes	2,569	4.6	1,809	3.2	-29.6								
Predominantly two lane roads	49,371	88.9	49,993	88.7	1.3								

The CNT estimates that due to the poor conditions of the paved roads, the operational cost of cargo trucks is 28 percent higher compared with a paved road under optimal conditions. This cost is higher in the North, Northeast, and Center-West regions. For example, if the cost of shipping a metric ton of soybeans from Sorriso, North MT, to Santos is \$100/mt and the Brazil average increased operational cost is 28 percent, then the optimal cost should be \$72/mt.



#### Cost increases due to road pavement conditions, 2009

Source: Confederação National do Transporte

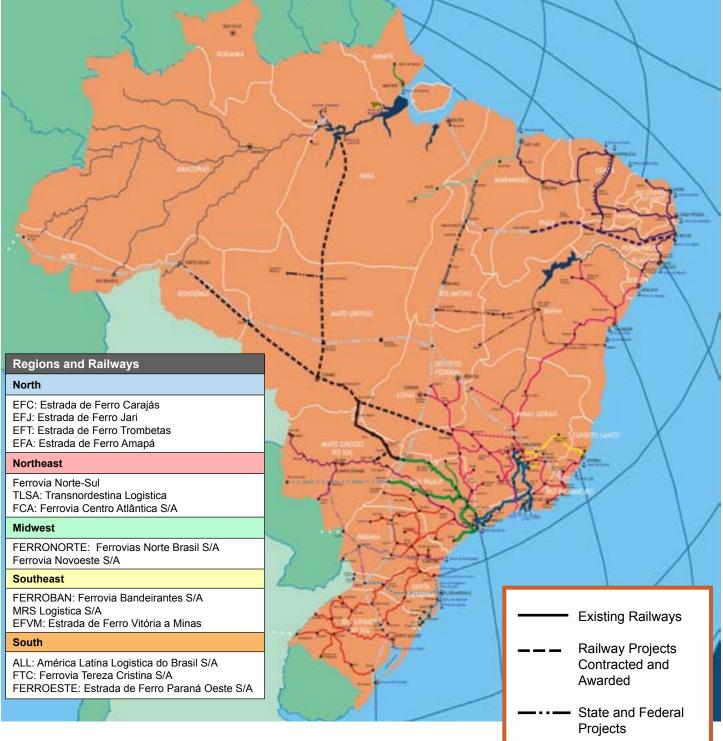
#### Brazilian railway expansion: ongoing projects

The Brazilian railroad system consists of 12 railroads with an extension of 18,487 miles, mostly concentrated in the South, Southeast, and Northeast. Currently, there are ongoing projects to expand the railways by 3,168 miles in the North, Northeast and Midwest regions.



#### Brazilian rail system: gauge sizes

The gauge system (distance between two rails) varies by region, creating difficulties in integrating the system like the North American region which uses a standard gauge. There are 3 types of gauge: metric (39"), broad (63") and mixed (39"-63"). The metric gauge accounts for 81 percent of the total Brazilian railroads, and predominates in the Southern region. The broad gauge accounts for 17 percent of total railroads and prevails in the Southeast region.



Source: National Association of Rail Transporters (ANTF)

		Ur	nited States	_	n supply a netric tons		oution		
Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
1998/99	28,507	5,438	74,598	96	80,132	21,899	43,262	48,749	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	66,783	151	71,787	24,128	41,632	44,600	3,059
2004/05	29,930	3,059	85,019	152	88,230	29,860	46,160	51,410	6,960
2005/06	28,834	6,960	83,507	92	90,559	25,579	47,324	52,751	12,229
2006/07	30,190	12,229	87,001	246	99,476	30,386	49,198	53,473	15,617
2007/08	25,959	15,617	72,859	269	88,745	31,538	49,081	51,627	5,580
2008/09	30,222	5,580	80,749	361	86,690	34,817	45,230	48,112	3,761
2009/10	30,907	3,761	91,417	397	95,575	40,852	47,669	50,617	4,106
2010/11	31,006	4,106	90,610	408	95,124	41,368	44,906	48,318	5,438
2011/12**	30,051	5,438	87,770	408	93,616	40,687	45,042	48,153	4776

\*Data based on local Marketing Year (MY). Soybeans are on a September/August MY \*\*Forecast: July 12, 2011

Source: USDA/Foreign Agricultural Service/Circular Series

	Soybean pro	oduction: wor (1,000 me		distribution						
Country*	Country* 2007/08 2008/09 2009/10 2010/11 20									
United States	72,859	80,749	91,417	90,610	87,770					
Brazil	61,000	57,800	69,000	74,500	72,500					
Argentina	46,200	32,000	54,500	49,500	53,000					
China	13,400	15,540	14,980	15,200	14,300					
India	9,470	9,100	9,700	9,600	9,800					
Paraguay	6,900	4,000	7,200	8,300	7,500					
Canada	2,696	3,336	3,507	4,345	4,000					
Other	7,944	9,435	10,534	11,638	12,583					
Total	220,469	211,960	260,838	263,693	261,453					

\*Most countries are on an October/September Marketing Year (MY). The United States, and Mexico are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY. \*\*Forecast: July 12, 2011

Source: USDA/ Foreign Agricultural Service/Circular Series

	Soybean in	nports: world (1,000 me	supply and di tric tons)	istribution	
Country*	2007/08	2008/09	2010/11	2011/12**	
China	37,816	41,098	50,338	52,000	56,500
EU-27	15,123	13,213	12,301	13,800	13,300
Mexico	3,614	3,327	3,523	3,700	3,750
Japan	4,014	3,396	3,401	3,250	3,400
Taiwan	2,148	2,216	2,469	2,400	2,600
Thailand	1,753	1,510	1,660	2,030	2,050
Egypt	1,061	1,575	1,638	1,750	1,800
Indonesia	1,147	1,393	1,620	1,635	1,650
Turkey	1,277	1,007	1,860	1,100	1,400
Korea, South	1,232	1,167	1,197	1,260	1,260
Other	8,926	7,474	6,794	6,895	7,156
Total	78,111	77,376	86,801	89,820	94,866

\*Most countries are on an October/September Marketing 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 an March/February MY.

\*\*Forecast: July 12, 2011

Source: USDA/ Foreign Agricultural Service/Circular Series

	Soybean exports: world supply and distribution (1,000 metric tons)												
Country*	2007/08* 2008/09 2009/10 2010/11 2011/12												
United States	31,538	34,817	40,852	41,368	40,687								
Brazil	25,364	29,987	28,578	30,850	34,000								
Argentina	13,839	5,590	13,088	8,500	11,300								
Paraguay	4,585	2,234	5,350	6,185	5,500								
Canada	1,753	2,017	2,247	2,825	2,631								
Other	1,696	2,197	2,534	3,064	3,458								
Total	78,775	76,842	92,649	92,792	97,576								

\*Most countries are on an October/September Marketing Year (MY). The United States, and Mexico are on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY. \*\*Forecast: July 12, 2011

Source: USDA/ Foreign Agricultural Service/Circular Series

	Soybean c	rush: world s (1,000 met	upply and dist ric tons)	tribution	
Country*	2007/08	2008/09	2009/10	2010/11	2011/12**
China	39,518	41,035	48,830	55,100	60,600
United States	49,081	45,230	47,669	44,906	45,042
Argentina	34,607	31,243	34,127	38,800	40,000
Brazil	32,117	31,868	33,700	35,900	37,100
EU-27	14,870	12,860	12,510	13,400	13,200
India	8,400	7,200	7,500	9,400	8,800
Mexico	3,650	3,465	3,583	3,770	3,800
Russia	1,051	1,497	1,950	2,220	2,640
Japan	2,890	2,497	2,370	2,260	2,360
Taiwan	1,965	1,917	2,150	2,125	2,300
Paraguay	2,100	1,700	1,700	1,850	1,850
Thailand	1,514	1,390	1,520	1,725	1,850
Egypt	1,129	1,545	1,635	1,744	1,800
Bolivia	1,160	1,435	1,480	1,450	1,450
Canada	1,383	1,286	1,292	1,425	1,350
Other	7,421	7,072	7,518	7,734	8,213
Total	202,856	193,240	209,534	223,809	232,355

\*Most countries are on an October/September Marketing 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 an March/February MY.

\*\*Forecast: July 12, 2011

Source: USDA/ Foreign Agricultural Service/Circular Series

	Soybean ending stocks: world supply and distribution (1,000 metric tons)												
Country*	Country* 2007/08 2008/09 2009/10 2010/11 2												
Argentina	21,760	16,588	22,277	22,850	22,900								
Brazil	18,898	12,037	15,836	20,311	18,361								
China	2,752	7,555	13,259	14,209	13,109								
United States	5,580	3,761	4,106	5,438	4,776								
EU-27	814	558	277	502	472								
Other	1,679	2,177	3,591	2,565	2,349								
Total	51,483	42,676	59,346	65,875	61,967								

\*Most countries are on an October/September Marketing Year (MY). The United States is on a September/August MY. Canada is on an August/July MY. Paraguay is on a March/February MY and Turkey is on an March/February MY. \*\*Forecast: July 12, 2011

Source: USDA/ Foreign Agricultural Service/Circular Series

Quarterly cost	Quarterly costs of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China												
			2010					2010					
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg			
				To Hamb	ourg, Germ	any (via U	I.S. Gulf)						
		Mir	nneapolis, I US\$/mt				Da	venport, lo US\$/mt	wa				
Truck	10.46	8.66	9.74	8.94	9.45	10.46	8.66	9.74	8.94	9.45			
Rail**	34.74	-	-	-	10.86	23.84	-	-	-	23.84			
Barge <sup>1</sup>	10.86	25.45	32.82	41.82	27.74	10.86	18.88	26.16	31.85	21.94			
Ocean <sup>2</sup>	24.92	27.87	28.31	24.84	26.49	24.92	27.87	28.31	24.84	26.49			
Total transportation <sup>2</sup>	80.98	61.98	70.87	75.60	72.36	70.08	55.41	64.21	65.63	63.83			
Farm price <sup>3</sup>	340.98	336.69	352.25	385.69	353.90	346.00	343.92	362.05	399.16	362.78			
Landed cost	421.96	398.67	423.12	461.29	426.26	416.08	399.33	426.26	464.79	426.62			
Transport % of landed cost	19.2	15.5	16.7	16.4	17.0	16.8	13.9	15.1	14.1	15.0			
				To Sha	nghai, Chi	na (via U.s	S. Gulf)						
		Miı	nneapolis, I US\$/mt			Davenport, Iowa US\$/mt							
Truck	10.46	8.66	9.74	8.94	9.45	10.46	8.66	9.74	8.94	9.45			
Rail**	34.74	-	-	-	34.74	23.84	-	-	-	10.86			
Barge <sup>1</sup>	10.86	25.45	32.82	41.82	27.74	10.86	18.88	26.16	31.85	21.94			
Ocean <sup>2</sup>	65.54	67.71	60.33	55.46	62.26	65.54	67.71	60.33	55.46	62.26			
Total transportation <sup>2</sup>	121.60	101.82	102.89	106.22	108.13	110.70	95.25	96.23	96.25	99.61			
Farm price <sup>3</sup>	346.86	336.69	352.25	385.69	355.37	351.51	343.92	362.05	399.16	364.16			
Landed cost	468.46	438.51	455.14	491.91	463.51	462.21	439.17	458.28	495.41	463.77			
Transport % of landed cost	26.0	23.2	22.6	21.6	23.3	24.0	21.7	21.0	19.4	21.5			
				To SI	nanghai, C	hina (via F	PNW)						
		Miı	nneapolis, I US\$/mt				Da	venport, lo US\$/mt	wa				
Truck	10.46	8.66	9.74	8.94	9.45	10.46	8.66	9.74	8.94	9.45			
Rail**	48.11	48.62	48.83	48.99	34.74	48.47	49.93	50.50	50.31	34.74			
Ocean <sup>2</sup>	38.64	38.44	33.15	29.25	34.87	48.47	38.44	33.15	29.25	37.33			
Total transportation <sup>2</sup>	97.21	95.72	91.72	87.18	92.96	97.57	97.03	93.39	88.50	94.12			
Farm price <sup>3</sup>	337.43	334.00	347.35	381.28	350.02	336.45	335.59	348.82	385.56	351.61			
Landed cost	434.64	429.72	439.07	468.46	442.97	434.02	432.62	442.21	474.06	445.73			
Transport % of landed cost	22.4	22.3	20.89	18.61	21.0	22.5	22.4	21.12	18.67	21.2			

\*\*Rail service is required due to seasonal closure of the Minneapolis segment of the Mississippi River

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

<sup>2</sup>The Baltic Exchange; excludes handling charges <sup>3</sup>Source: USDA/NASS

	Averag	e cost o	of trans	porting	U.S. s	oybean	s to Han	nburg,	Germai	ny, and	Shang	hai, Ch	ina	
	2005	2006	2007	2008	2009	2010	% Change 2009-10	2005	2006	2007	2008	2009	2010	% Change 2009-10
						Тс	g, Germa	ny						
			Mir	nneapolis, US\$/mt·		ta				Da	venport, I US\$/mt			
Truck	8.59	9.75	10.09	11.50	10.01	9.45	-5.57	8.59	9.75	10.09	11.50	10.01	9.45	-5.57
Rail**	-	-	-	26.00	-	10.86	-	-	-	-	-	-	23.84	-
Barge <sup>1</sup>	25.74	33.21	29.38	34.75	25.56	27.74	8.52	21.84	25.59	23.89	30.41	19.77	21.94	10.96
Ocean <sup>2</sup>	28.61	24.03	58.81	52.66	21.10	26.49	25.52	28.61	24.03	58.81	52.66	21.10	26.49	25.52
Total transportation <sup>2</sup>	62.93	66.99	98.28	105.41	56.67	72.36	27.69	59.04	59.38	92.79	94.57	50.88	63.83	25.46
Farm price <sup>3</sup>	217.58	200.41	274.79	411.71	363.76	353.90	-2.71	215.65	204.05	285.77	416.89	370.01	362.78	-1.95
Landed cost	280.51	267.40	373.07	517.12	420.46	426.26	1.38	274.69	263.43	378.56	511.46	420.89	426.62	1.36
Transport % of landed cost	22.47	24.94	25.7	20.1	13.5	17.0	25.9	21.54	22.49	23.9	18.3	12.1	15.0	23.8
						-	To Shangh	nai, China	a					
			Mir	nneapolis, US\$/mt·		ta		Davenport, Iowa US\$/mt						
Truck	8.59	9.75	10.09	11.50	10.01	9.45	-5.57	8.59	9.75	10.09	11.50	10.01	9.45	-5.57
Rail**	-	-	-	26.00	-	34.74	-	-	-	-	-	-	10.86	-
Barge <sup>1</sup>	25.74	33.21	29.38	34.75	25.56	27.74	8.52	21.84	25.59	23.89	30.41	19.77	21.94	10.96
Ocean <sup>2</sup>	49.50	41.59	81.36	91.18	51.21	62.26	21.58	49.50	41.59	81.36	91.18	51.21	62.26	21.58
Total transportation <sup>2</sup>	83.83	84.54	120.84	143.93	86.78	108.13	24.61	79.93	76.93	115.35	133.09	80.99	99.61	22.99
Farm price <sup>3</sup>	217.58	200.41	274.79	411.71	363.80	355.37	-2.32	215.65	204.07	285.74	416.89	370.01	364.16	-1.58
Landed cost	301.40	284.95	395.62	555.64	450.57	463.51	2.87	295.58	281.00	401.09	549.98	450.99	463.77	2.83
Transport % of landed cost	27.84	29.54	30.1	25.4	19.2	23.3	21.7	27.08	27.31	28.3	23.7	17.9	21.5	20.3

\*\*Rail service is required due to seasonal closure of the Minneapolis segment of the Mississippi River

<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>The Baltic Exchange; excludes handling charges

<sup>3</sup>USDA/NASS

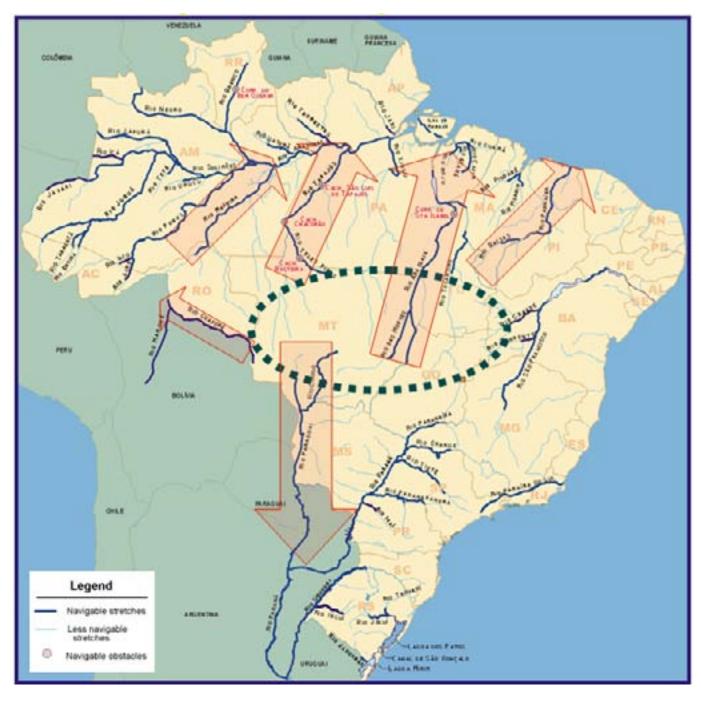
	Average quarterly exchange rate														
	1st qtr	2nd qtr	3rd qtr	4th qtr	2005	1st qtr	2nd qtr	3rd qtr	4th qtr	2006	1st qtr	2nd qtr	3rd qtr	4th qtr	2007
Real per US\$	2.6652	2.4818	2.3428	2.2509	2.4352	2.1959	2.1852	2.1711	2.1520	2.1761	2.1082	1.9818	1.9177	1.7857	1.9484
	1st qtr	2nd qtr	3rd qtr	4th qtr	2008	1st qtr	2nd qtr	3rd qtr	4th qtr	2009	1st qtr	2nd qtr	3rd qtr	4th qtr	2010
Real per US\$	1.7365	1.6561	1.6678	2.2779	1.8346	2.3113	2.0728	1.8680	1.7386	1.9977	1.8003	1.7927	1.7487	1.6963	1.7595

Source: Banco Central do Brasil

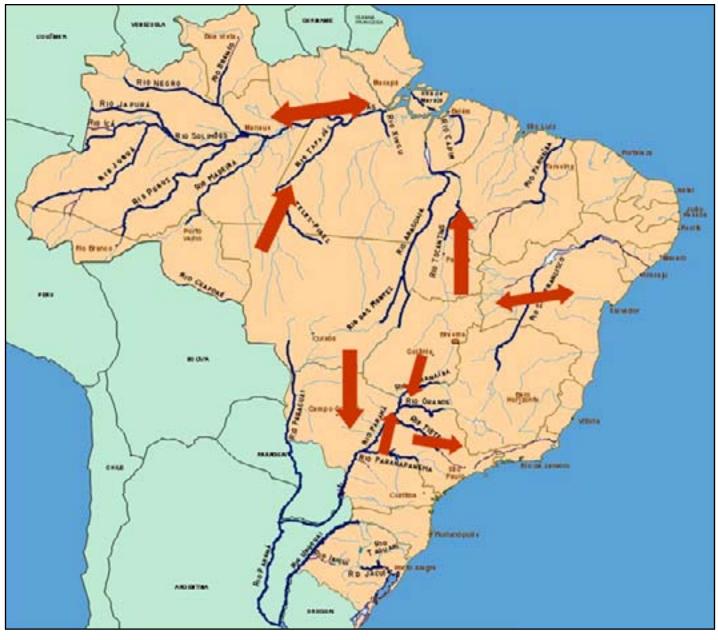
Selected quarterly Brazilian farm prices (US\$/metric ton)*				
Year	Rio Grande do Sul	Mato Grosso	Goiás	Paraná
2005			·	
1st qtr	202.61	145.15	174.70	196.31
2nd qtr	210.19	161.38	179.81	207.04
3rd qtr	214.23	175.08	188.26	222.81
4th qtr	206.36	174.28	184.89	214.81
Average	208.35	163.97	181.92	210.24
2006				
1st qtr	202.56	157.86	180.71	206.88
2nd qtr	198.03	150.72	175.49	194.83
3rd qtr	207.37	161.30	185.73	211.06
4th qtr	233.43	189.65	216.60	242.47
Average	210.34	164.88	189.63	213.81
2007				
1st qtr	249.78	196.22	231.95	251.13
2nd qtr	228.00	198.61	225.49	239.48
3rd qtr	256.59	234.16	267.93	272.70
4th qtr	333.86	306.30	349.22	361.26
Average	267.06	233.82	268.65	281.14
2008			1	
1st qtr	404.89	349.23	406.90	423.63
2nd qtr	429.72	389.20	401.89	434.42
3rd qtr	435.02	419.80	409.37	435.49
4th qtr	309.01	277.74	274.34	303.68
Average	394.66	358.99	373.13	399.31
2009				
1st qtr	315.99	264.63	288.68	326.95
2nd qtr	359.68	315.88	336.86	373.16
3rd qtr	374.28	347.80	356.43	391.57
4th qtr	388.08	369.07	371.29	398.17
Average	359.51	324.34	338.31	372.46
2010				
1st qtr	331.49	261.05	309.89	325.22
2nd qtr	304.36	269.58	271.15	300.32
3rd qtr	342.98	328.51	315.43	350.41
4th qtr	400.78	413.46	400.62	425.79
Average	344.90	318.15	324.27	350.44

Source: Companhia Nacional de Abastecimento (CONAB)

#### Major river export routes



Source: National Agency for Waterway Transportation (ANTAQ)



#### Major river system corridors

Sources: Ministério dos Transportes, Brazil National Agency for Waterway Transportation (ANTAQ)

