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Soybean Transportation Guide: Brazil 2012



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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 2012. 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.

A smaller-than-expected Brazilian soybean crop lowered transportation cost in 2012. Brazilian soybean farmers increased the planted area, but severe drought since November 2011 lowered yields, especially in the central-south States, lowering transportation demand. Brazilian soybean transportation costs to Hamburg and Shanghai as a percentage of total landed costs decreased 7–27 percent in Mato Grosso, Paraná, Rio Grande do Sul and South Goiás from a year earlier because truck and ocean rates dropped and farm prices rose. Despite lower yields, Brazilian soybean farmers and shippers benefitted from high farm prices, a weaker currency, and lower transportation costs to major export routes that resulted in a lower total landed cost to China and Europe compared with last year.

Farm prices, measured in US\$, rose on average almost 19 percent (40 percent when measured in R\$). In Sorriso, North Mato Grosso (the largest Brazilian soybean-producing State, in the Midwest region) transportation costs represented 28 percent of the 2011 total landed costs of shipping soybeans to Shanghai through Santos, compared with 45 percent in 2006.

The cost of shipping a metric ton (mt) of soybeans 100 miles by truck decreased 14 percent, from \$11.71 in 2011 to \$10.07 in 2012. Truck rates dropped significantly from last year, especially in the 2nd and 3rd quarters. The peak of Brazilian soybean exports usually occurs in May; by the end of June, almost two-thirds of the year's soybeans are exported.

In 2012, ocean rates from the Port of Santos to Shanghai, China, increased in the 2nd quarter but still remained nearly 2 percent below 2011 rates, averaging \$49.70/mt. Ocean rates to Hamburg steadily increased throughout the 2nd quarter, hit a peak of \$35/mt, and declined through the 4th quarter, dropping 8 percent from 2011 rates, averaging 31.75/mt.

China is Brazil's major soybean buyer, accounting for 70 percent of total exports. China bought 22.6 million mt of Brazilian soybeans in 2012, valued at US\$11.9 billion. China usually buys soybeans shipped from the southern ports of Santos, Paranaguá, and Rio Grande through the Cape of Good Hope in South Africa to Shanghai because it is cheaper than from the remote ports of the Amazon River and the Northeast. The Port of Santos, Paranaguá, and Rio Grande accounted for 74 percent of total Brazilian soybean exports to China. Brazil soybean exports to China usually peak in May and almost finish by the end of September. Over 90 percent of Brazil soybeans exports to China originated from Mato Grosso, Paraná, Rio Grande Do Sul, São Paulo, and Mato Grosso do Sul in 2012.

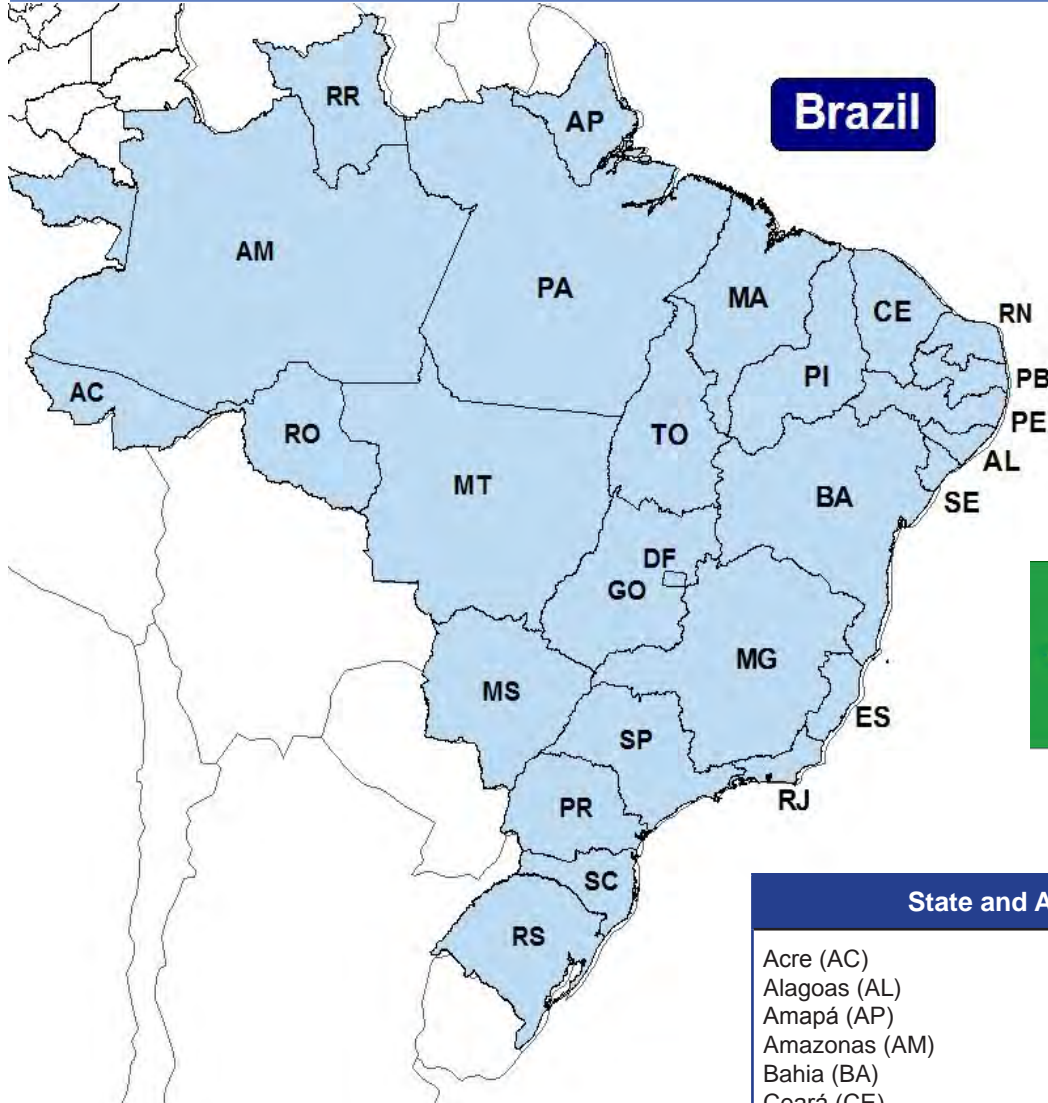
Brazil general cargo modal share is proportionally similar to that of the United States. Cargo is predominantly shipped by truck, followed by rail and barge. Overall, Brazil's transportation infrastructure is improving. However, transportation costs in the Midwest, especially in Mato Grosso, are still higher than Iowa in the United States and in the southern Brazilian state of Rio Grande do Sul, which has lower transportation cost than the United States' routes to China through the Pacific Northwest (PNW) and the U.S. Gulf to Shanghai.

On July 17, 2012, the Brazilian government implemented the first hours-of-service rules, called the "Driver's Law," to address safety issues. The new law reduced the number of hours a truck driver can work in a 24-hour period, thereby increasing transportation costs. However, the 2012 soybean truck rates were not significantly affected because the export season peak ended at the end of August and the Brazilian Real (R\$) depreciated against the U.S. dollar (US\$) during the year. China accelerated its pace of soybean purchases before the Driver's Law implementation, which might also have helped minimize the impact of the law. By the end of June, China already purchased 74 percent of its 2012 total soybean imports from Brazil, compared with 56 percent bought at the same time last year.



Acknowledgments

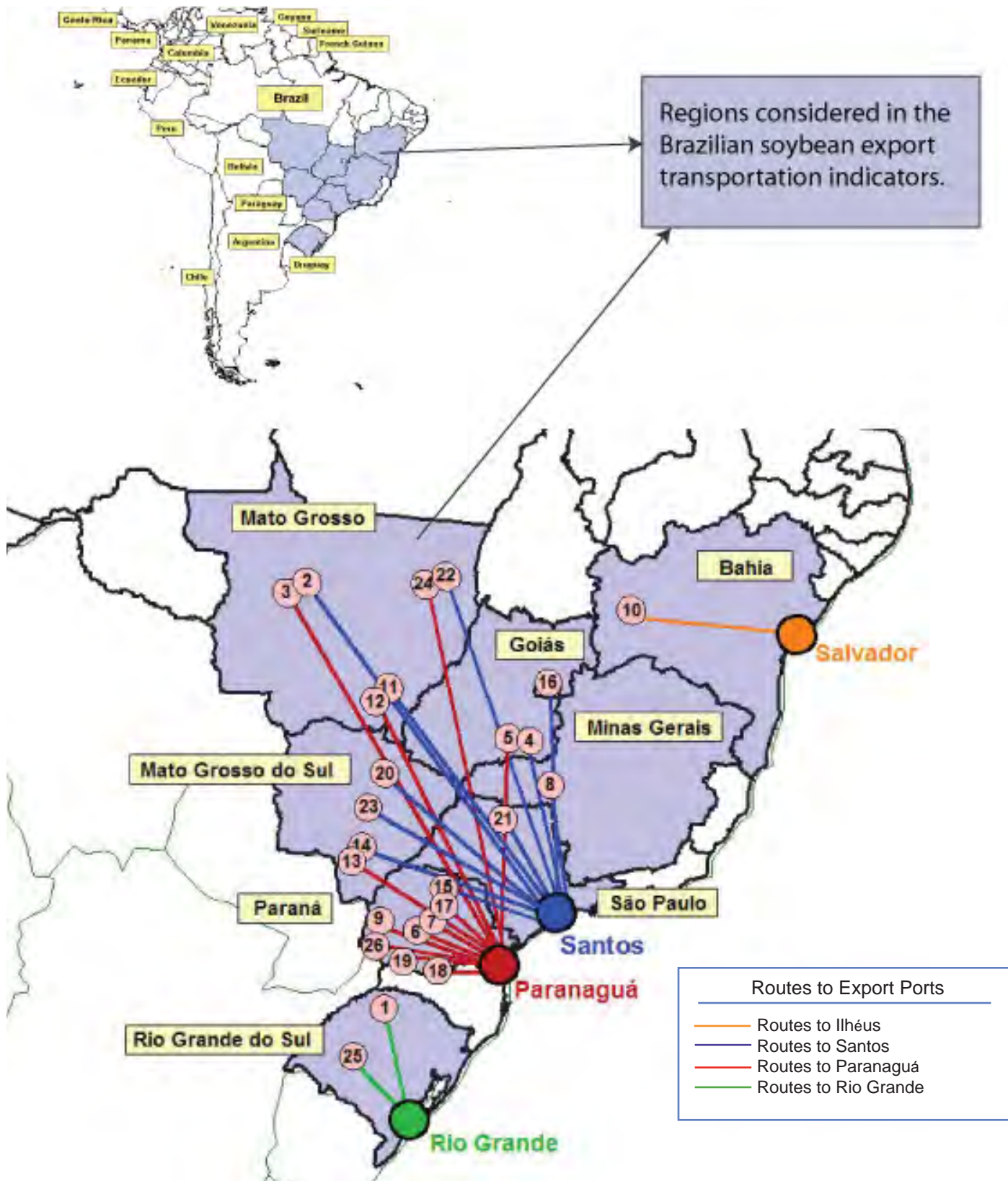
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State and Abbreviation	
Acre (AC)	Paraíba (PB)
Alagoas (AL)	Paraná (PR)
Amapá (AP)	Pernambuco (PE)
Amazonas (AM)	Piauí (PI)
Bahia (BA)	Rio de Janeiro (RJ)
Ceará (CE)	Rio Grande do Norte (RN)
Distrito Federal (DF)	Rio Grande do Sul (RS)
Espírito Santo (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)	

Population:	199,321,413 (July 2012 est.) 196 526,000 (2010 Census, Instituto Brasileiro de Geografia e Estatística (IBGE))
Gross Domestic Product per Capita, 2012:	US\$11,462.22 (Banco Central do Brasil)
Inflation, 2012:	5.84 percent (Banco Central do Brasil)
Area:	8,514,877 sq km
Languages:	Portuguese (official), Spanish, English, French

Routes¹ and regions considered in the Brazilian soybean export transportation indicators²



¹Table defining routes by number is shown on page 16

²Regions comprised about 82 percent of Brazilian soybean production, 2010

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

In 2012, Brazilian soybean transportation costs to Shanghai, China, as a percentage of total landed costs decreased 7—23 percent compared with 2011 due to lower transportation costs and record high farm prices. In Sorriso, North MT (the largest Brazilian soybean-producing state) transportation costs represented 28 percent of the total landed costs of shipping soybeans to Shanghai through Santos compared with 45 percent in 2006.

Cost of transporting soybeans from Brazil to Shanghai, China

	2007	2008	2009	2010	2011	2012	Percent change 11-12	2007	2008	2009	2010	2011	2012	Percent change 11-12	
	--US\$/mt--							--US\$/mt--							
	North MT¹ - Santos²								Northwest RS¹ - Rio Grande²						
Truck	97.67	115.74	97.00	116.78	123.31	111.78	-9.3	21.82	22.29	24.50	28.18	38.94	25.83	-33.7	
Ocean	82.83	70.38	58.78	55.84	50.50	49.70	-1.6	81.56	72.08	59.42	58.21	51.10	49.69	-2.8	
Total transportation	180.51	186.12	155.78	172.62	173.81	161.48	-7.1	103.37	94.37	83.92	86.39	90.03	75.51	-16.1	
Farm price ³	233.82	358.99	324.34	318.15	392.10	483.31	23.3	267.06	394.66	359.51	344.90	415.87	483.22	16.2	
Landed cost	414.33	545.11	480.12	490.77	565.91	644.80	13.9	370.43	489.03	443.43	431.29	505.90	558.73	10.4	
Transport % of landed cost	43.9	34.1	32.6	38.6	30.6	28.4	-7.4	28.1	19.4	19.0	20.1	17.8	13.7	-23.2	
	North Center PR¹ - Paranagua²								South GO¹ - Santos²						
Truck	32.36	33.60	27.37	34.51	39.54	34.76	-12.1	50.47	55.33	50.83	64.71	63.92	55.02	-13.9	
Ocean	80.81	71.66	59.00	58.92	57.32	55.20	-3.7	82.83	70.38	58.78	55.84	50.50	49.70	-1.6	
Total transportation	113.18	105.26	86.37	93.43	96.86	89.96	-7.1	133.30	125.71	109.62	120.56	114.42	104.72	-8.5	
Farm price ³	281.14	399.31	372.46	350.44	431.66	513.81	19.0	268.65	373.13	338.31	324.27	412.89	479.80	16.2	
Landed cost	394.32	504.56	458.83	443.87	528.52	603.76	14.2	401.95	498.84	447.93	444.82	527.31	584.52	10.8	
Transport % of landed cost	28.9	21.0	18.9	21.2	18.4	15.1	-18.0	33.5	25.4	24.6	27.4	21.7	18.1	-16.4	

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

²Export ports

³Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br

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

2012 Summary

In 2012, 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 decreased 19–27 percent from a year earlier.

Cost of transporting soybeans from Brazil to Hamburg, Germany

	2007	2008	2009	2010	2011	2012	Percent change 11-12	2007	2008	2009	2010	2011	2012	Percent change 11-12		
	--US\$/mt--							--US\$/mt--								
	North MT¹ - Santos²								Northwest RS¹ - Rio Grande²							
Truck	97.67	115.74	97.00	116.78	123.31	111.78	-9.3	21.82	22.29	24.50	28.18	37.54	25.83	-31.2		
Ocean	73.01	52.36	32.48	33.63	34.65	31.75	-8.4	71.73	54.30	33.79	36.03	36.12	33.15	-8.2		
Total transportation	170.68	168.10	129.48	150.40	157.96	143.53	-9.1	93.55	76.60	58.30	64.21	73.65	58.97	-19.9		
Farm price ³	233.82	358.99	324.34	318.15	392.10	483.31	23.3	267.06	394.66	359.51	344.90	415.87	483.22	16.2		
Landed cost	404.50	527.09	453.82	468.55	550.06	626.84	14.0	360.61	471.26	417.80	409.11	489.52	542.19	10.8		
Transport % of landed cost	42.5	31.6	28.7	32.6	28.7	23.3	-19.0	26.1	16.1	14.0	15.8	15.0	11.0	-26.6		
	North Center PR¹ - Paranagua²								South GO¹ - Santos²							
Truck	32.36	33.60	27.37	34.51	39.54	34.76	-12.1	50.47	80.61	50.83	64.71	63.92	55.02	-13.9		
Ocean	71.05	53.81	33.34	35.08	34.95	33.80	-3.3	73.01	52.36	32.48	33.63	34.65	31.75	-8.4		
Total transportation	103.42	87.41	60.71	69.59	74.48	68.56	-8.0	123.48	132.97	83.32	98.34	98.57	86.77	-12.0		
Farm price ³	281.14	399.30	372.46	350.44	431.66	513.81	19.0	268.65	358.99	338.31	324.27	412.89	479.80	16.2		
Landed cost	384.56	486.71	433.17	420.03	506.15	582.36	15.1	392.12	491.97	421.63	422.61	511.46	566.57	10.8		
Transport % of landed cost	27.0	17.9	14.1	16.8	14.7	11.9	-19.2	31.8	26.9	19.8	23.6	19.3	15.6	-19.3		

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

²Export ports

³Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br

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

In 2012, U.S. soybean transportation costs from Minnesota and Iowa through the U.S. Gulf to Hamburg, Germany and Shanghai, China, as a percentage of total landed costs decreased 15-16 percent compared with 2011.

Average cost of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China

	2006	2007	2008	2009	2010	2011	2012	% Change 2011-12	2006	2007	2008	2009	2010	2011	2012	% Change 2011-12
To Hamburg, Germany																
	Minneapolis, Minnesota --US\$/mt--								Davenport, Iowa --US\$/mt--							
Truck	9.75	10.09	11.50	10.01	9.45	11.38	11.29	-0.8	9.75	10.09	11.50	10.01	9.45	11.38	11.29	-0.8
Rail**	-	-	26.00	-	10.86	10.86	10.86	-	-	-	-	-	10.86	23.84	23.84	-
Barge ¹	33.21	29.38	34.75	25.56	31.25	31.93	28.53	-10.6	25.59	23.89	30.41	19.77	25.45	25.99	22.89	-11.9
Ocean ²	24.03	58.81	52.66	21.10	28.94	23.42	20.29	-13.4	24.03	58.81	52.66	21.10	26.22	23.42	20.29	-13.4
Total transportation ²	66.99	98.28	105.41	56.67	72.36	75.39	68.02	-9.8	59.38	92.79	94.57	50.88	63.83	67.40	60.52	-10.2
Farm price ³	200.41	274.79	411.71	363.76	353.90	446.13	507.43	13.7	204.05	285.77	416.89	370.01	362.78	458.68	510.13	11.2
Landed cost	267.40	373.07	517.12	420.46	426.26	521.52	575.45	10.3	263.43	378.56	511.46	420.89	426.62	526.08	570.64	8.5
Transport % of landed cost	24.94	25.7	20.1	13.5	17.0	14.5	11.9	-17.8	22.49	23.9	18.3	12.1	15.0	12.8	10.7	-16.8
To Shanghai, China																
	Minneapolis, Minnesota --US\$/mt--								Davenport, Iowa --US\$/mt--							
Truck	9.75	10.09	11.50	10.01	9.45	11.38	11.29	-0.8	9.75	10.09	11.50	10.01	9.45	11.38	11.29	-0.8
Rail**	-	-	26.00	-	10.86	34.74	31.61	-9.0	-	-	-	-	10.86	10.86	24.16	122.5
Barge ¹	33.21	29.38	34.75	25.56	41.41	31.93	28.53	-10.6	25.59	23.89	30.41	19.77	35.61	25.99	22.89	-11.9
Ocean ²	41.59	81.36	91.18	51.21	54.56	53.08	46.98	-11.5	41.59	81.36	91.18	51.21	51.84	53.08	46.98	-11.5
Total transportation ²	84.54	120.84	143.93	86.78	108.13	105.05	94.71	-9.8	76.93	115.35	133.09	80.99	99.61	97.06	87.20	-10.2
Farm price ³	200.41	274.79	411.71	363.80	355.37	446.13	507.43	13.7	204.07	285.74	416.89	370.01	364.16	458.68	510.13	11.2
Landed cost	284.95	395.62	555.64	450.57	463.51	551.18	602.14	9.2	281.00	401.09	549.98	450.99	463.77	555.74	597.33	7.5
Transport % of landed cost	29.54	30.1	25.4	19.2	23.3	19.1	15.8	-17.0	27.31	28.3	23.7	17.9	21.5	17.5	14.7	-16.0

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

¹The 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.

²The Baltic Exchange; excludes handling charges

³USDA/NASS

2012 Summary

The U.S. soybean transportation costs from North and South Dakota via the Pacific Northwest to Shanghai, China, as a percentage of total landed cost dropped 9-22 percent from a year earlier.

Average costs of transporting U.S. soybeans to Shanghai, China						
	2011	2012	% change 2011-12	2011	2012	% change 2011-12
	To Shanghai, China via PNW					
	Fargo, ND --US\$/mt--			Sioux Falls, SD --US\$/mt--		
Truck	11.38	11.29	-0.8	11.38	11.29	-0.8
Rail**	34.74	34.74	-	34.74	34.74	-
Ocean ¹	29.76	24.93	-16.2	29.76	24.93	-16.2
Total transportation ¹	92.03	91.46	-0.6	96.68	93.23	-3.6
Farm price ²	442.76	496.65	12.2	386.64	502.78	30.0
Landed cost	534.79	588.11	10.0	483.32	596.00	23.3
Transport % of landed cost	17.2	15.6	-9.3	20.2	15.7	-22.4

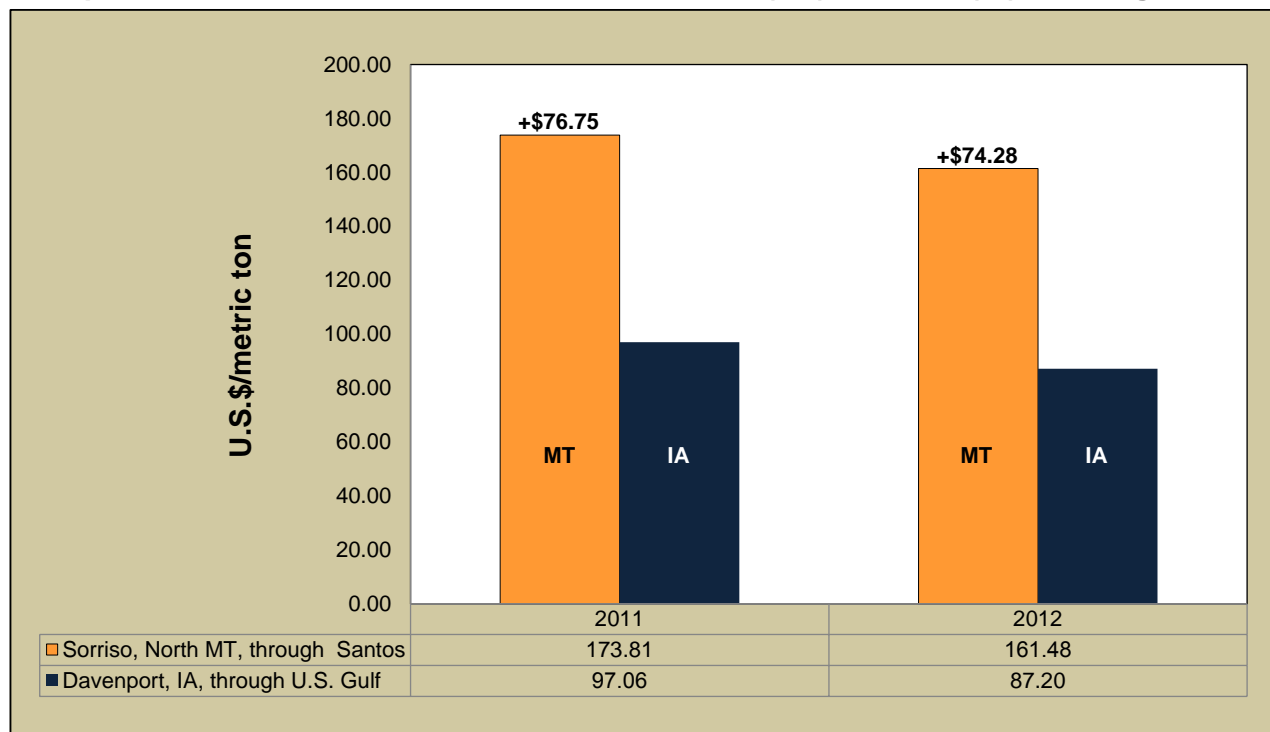
**Rail service is required due to seasonal closure of the Minneapolis segment of the Mississippi River

¹The Baltic Exchange; excludes handling charges

²Source: USDA/NASS

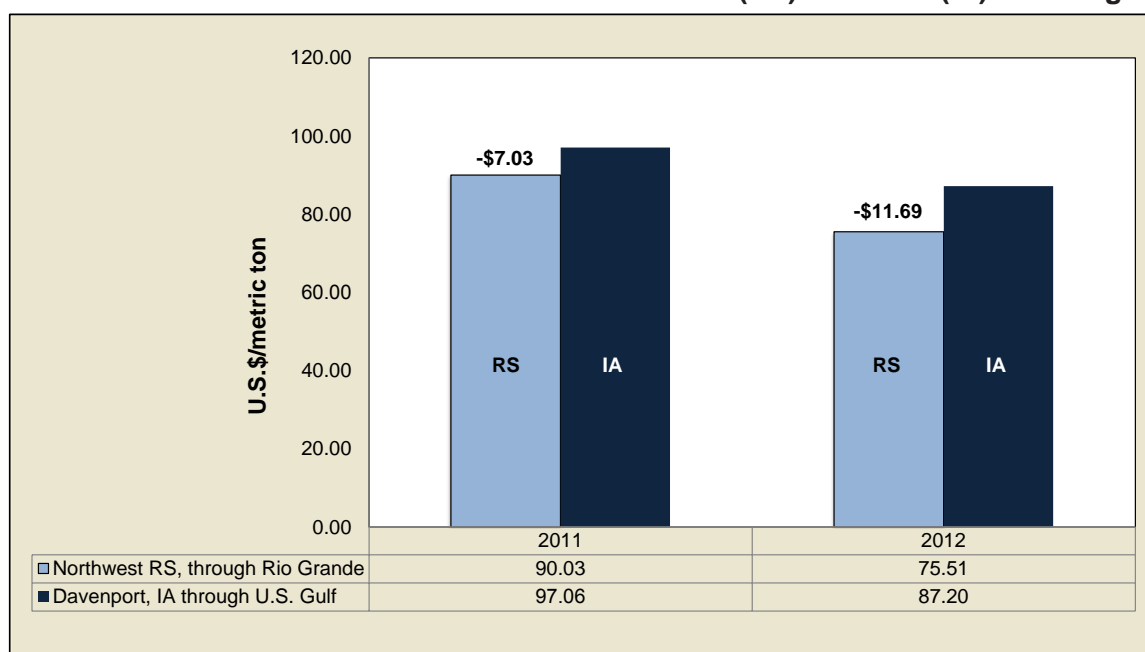
In 2012, it cost \$74.28 more per metric ton to ship soybeans from Sorriso, North Mato Grosso (MT) to Shanghai, China, than from Davenport, IA. Sorriso is located 1,190 miles from the port of Santos. Davenport is about 900, 908, and 1,343 miles from the Port of New Orleans by truck, rail, and barge, respectively.

Transportation cost differences between Mato Grosso (MT) and Iowa (IA) to Shanghai, China



In 2012, the cost of shipping a metric ton of soybeans from Cruz Alta, Northwest Rio Grande do Sul (RS), to Shanghai, China, cost \$11.69 less than from Davenport, IA. The distance from Cruz Alta to the port of Rio Grande is 288.

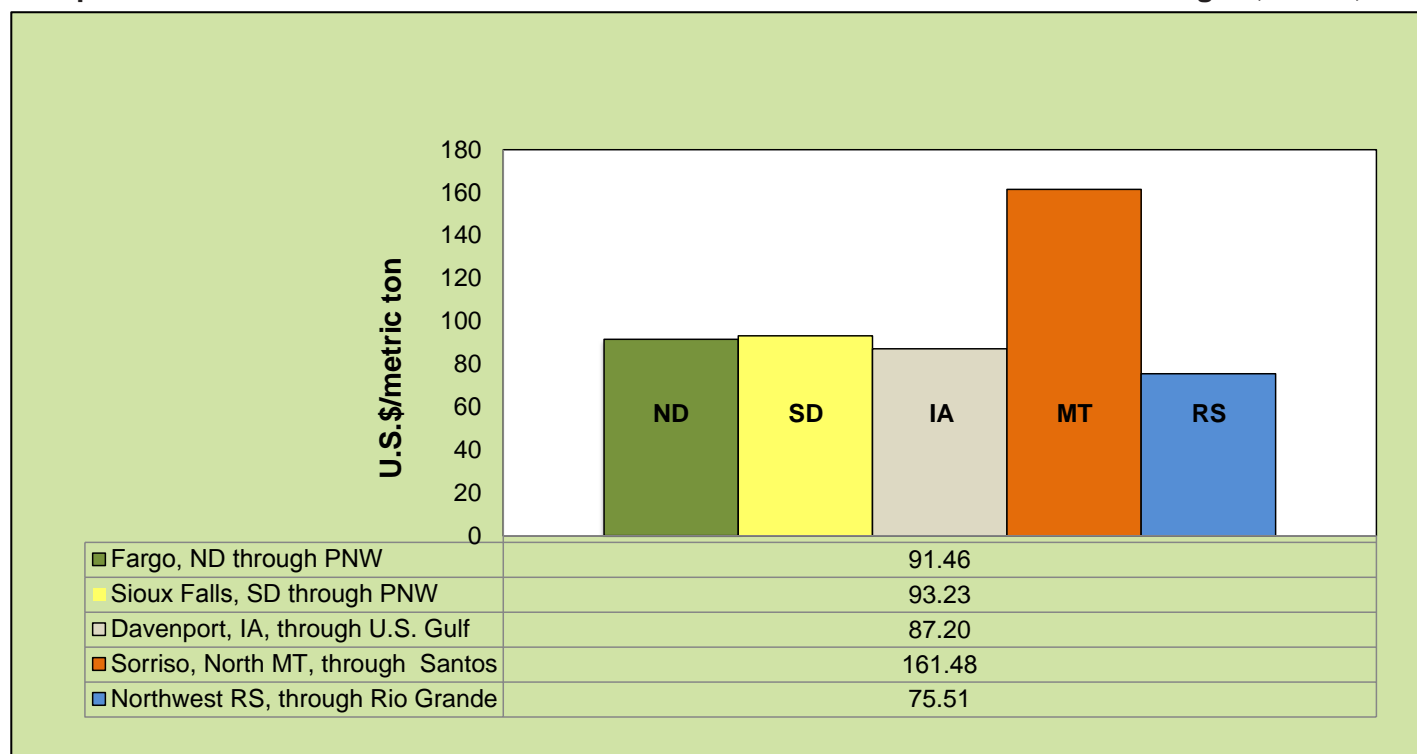
Transportation cost differences between Rio Grande do Sul (RS) and Iowa (IA) to Shanghai, China



2012 Summary

During 2012, Sorriso, North MT, soybean shippers to Shanghai paid \$70-\$74 per metric ton more than U.S. exporters through the U.S. Gulf and PNW routes; and almost \$86 more than the transportation cost paid by Cruz Alta, RS, shippers.

Transportation cost differences between selected Brazil-United States Routes to Shanghai, China, 2012



Source: USDA/AMS

In 2012, truck rates (valued in reais) from Sorriso, North Mato Grosso (MT), to Santos and Paranaguá increased 5–8 percent. Truck rates from Cruz Alta, Rio Grande do Sul (RS) to Rio Grande declined significantly due to a 38 percent drop in exports caused by a severe drought that reduced the state's soybean production by nearly half.

Truck rates for selected Brazilian soybean export routes, 2005-2012

Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	Reais/metric ton								Percent Change 11-12
				2005	2006	2007	2008	2009	2010	2011	2012	
1	Northwest RS ³ (Cruz Alta)	Rio Grande	288	31.25	35.09	42.83	39.75	48.32	49.58	62.44	50.35	-19.4
2	North MT (Sorriso)	Santos	1190	191.83	172.90	190.37	206.25	191.73	205.40	206.03	218.00	5.8
3	North MT (Sorriso)	Paranaguá	1262	188.40	169.84	171.59	196.05	180.30	195.09	197.09	212.49	7.8
4	South GO (Rio Verde)	Santos	587	90.56	94.74	98.45	99.16	100.36	113.85	106.57	107.31	0.7
6	North Central PR (Londrina)	Paranaguá	268	52.26	46.35	62.89	60.78	54.50	60.70	66.07	67.92	2.8
11	Southeast MT (Primavera do Leste)	Santos	901	143.14	125.29	135.70	144.86	147.22	164.18	159.93	164.92	3.1

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

²Distance from the main city of the considered region to the mentioned ports.

³RS = 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

In 2012, selected Brazilian export truck routes saw proportionally lower transportation costs in U.S. dollars due to the depreciation of the Brazilian Real (R\$) against the U.S. dollar and slightly lower transportation export demand. In 2012, the Brazilian Real (R\$) depreciated 16.7 percent against the US\$ compared with 2011.

Truck rates for selected Brazilian soybean export routes, 2005-2012

Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	2005	2006	2007	2008	2009	2010	2011	2012	Percent Change 11-12
				US\$/metric ton								
1	Northwest RS ³ (Cruz Alta)	Rio Grande	288	12.84	16.16	21.82	22.29	24.50	28.18	37.54	25.83	-31.2
2	North MT (Sorriso)	Santos	1190	79.10	79.46	97.67	115.74	97.00	116.78	123.31	111.78	-9.4
3	North MT (Sorriso)	Paranaguá	1262	77.64	78.05	88.05	109.90	91.36	110.94	117.90	108.93	-7.6
4	South GO (Rio Verde)	Santos	587	37.59	43.56	50.47	55.33	50.83	64.71	63.92	55.02	-13.9
6	North Central PR (Londrina)	Paranaguá	268	21.52	21.31	32.36	33.60	27.37	34.51	39.54	34.76	-12.1
11	Southeast MT (Primavera do Leste)	Santos	901	58.95	57.56	69.58	80.61	74.39	93.41	95.82	84.42	-11.9

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

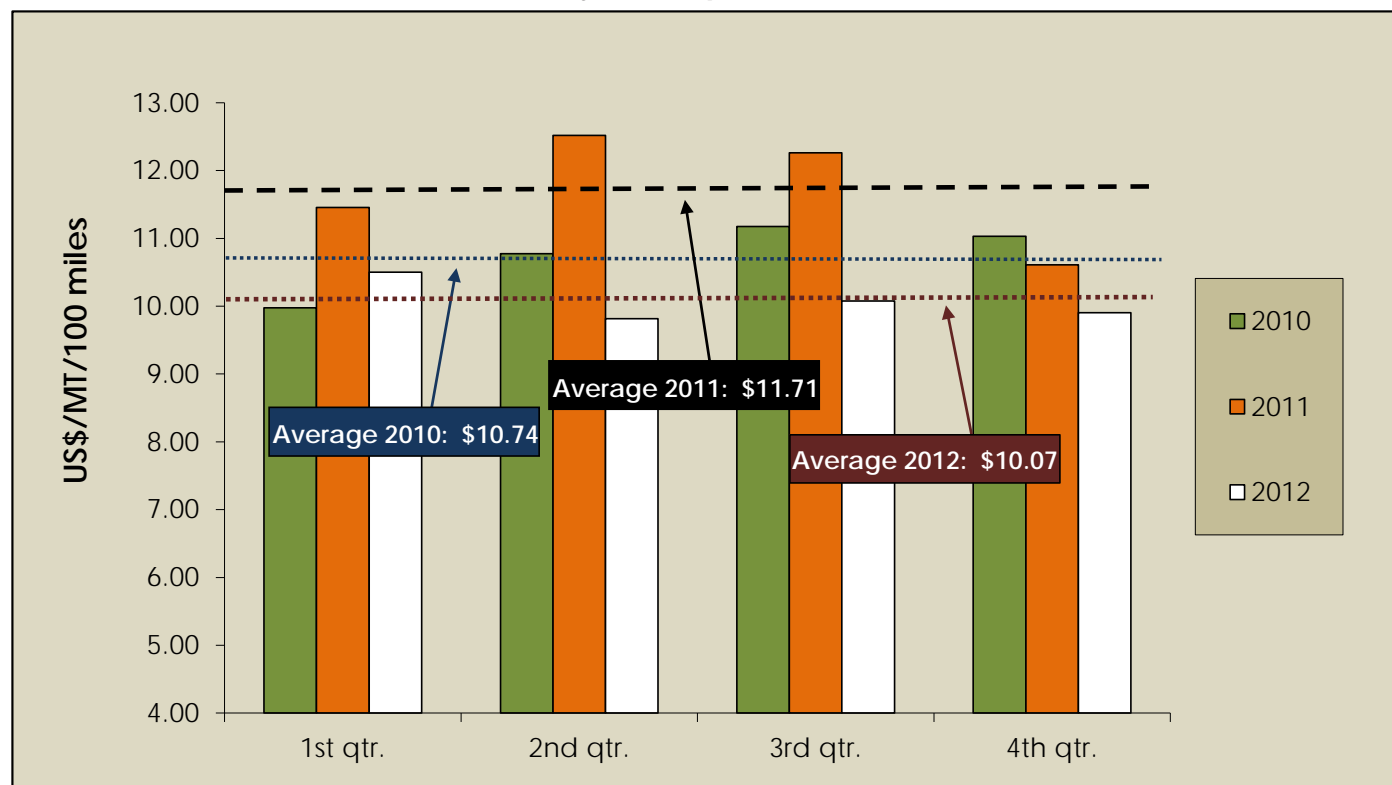
²Distance from the main city of the considered region to the mentioned ports.

³RS = 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 decreased 14 percent in 2012. The cost of shipping a metric ton (mt) of soybeans 100 miles by truck decreased from \$11.71 in 2011 to \$10.07 in 2012. Brazilian soybean transportation cost dropped because of a smaller-than-expected soybean crop, record high farm prices, a depreciated Brazilian currency, limited port capacity, port congestion due to heavy rain, lack of alternative transportation modes and routes to export ports, and the implementation of Brazil's new hours of service rules for truck drivers.

Brazilian soybean export truck cost index

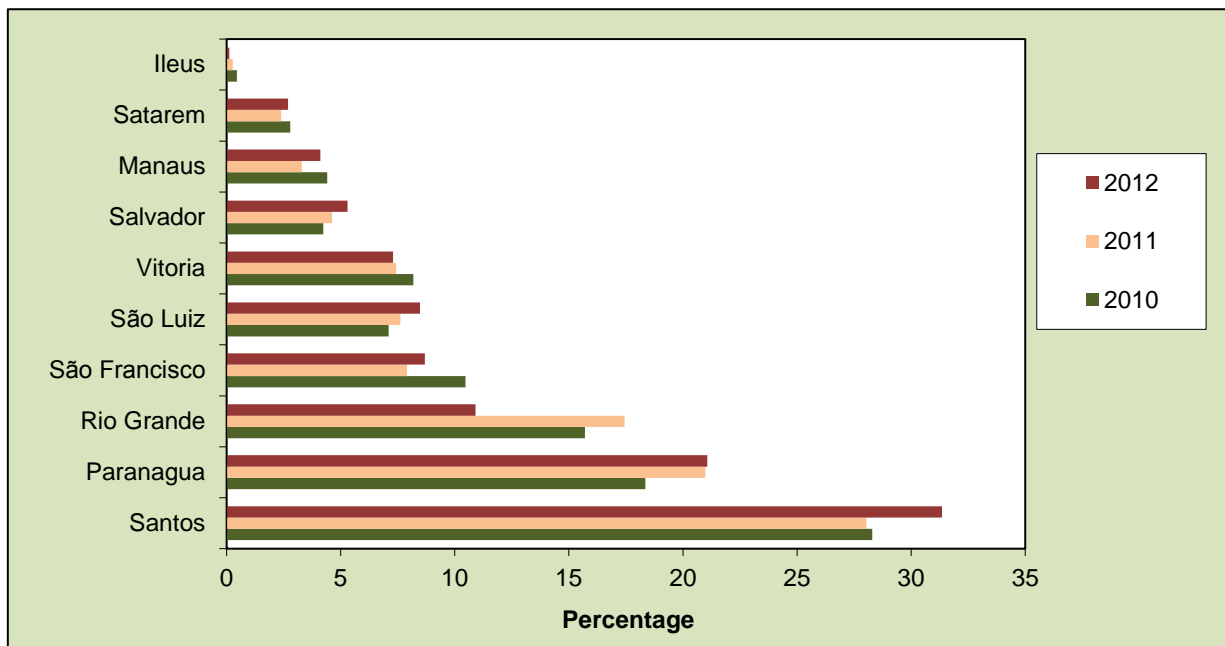


Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2012 Summary

Brazil is the second largest soybean export country after the United States. In 2012, Santos was the largest Brazilian soybean export port followed by Paranaguá and Rio Grande. These 3 ports accounted for 63 percent of total exports.

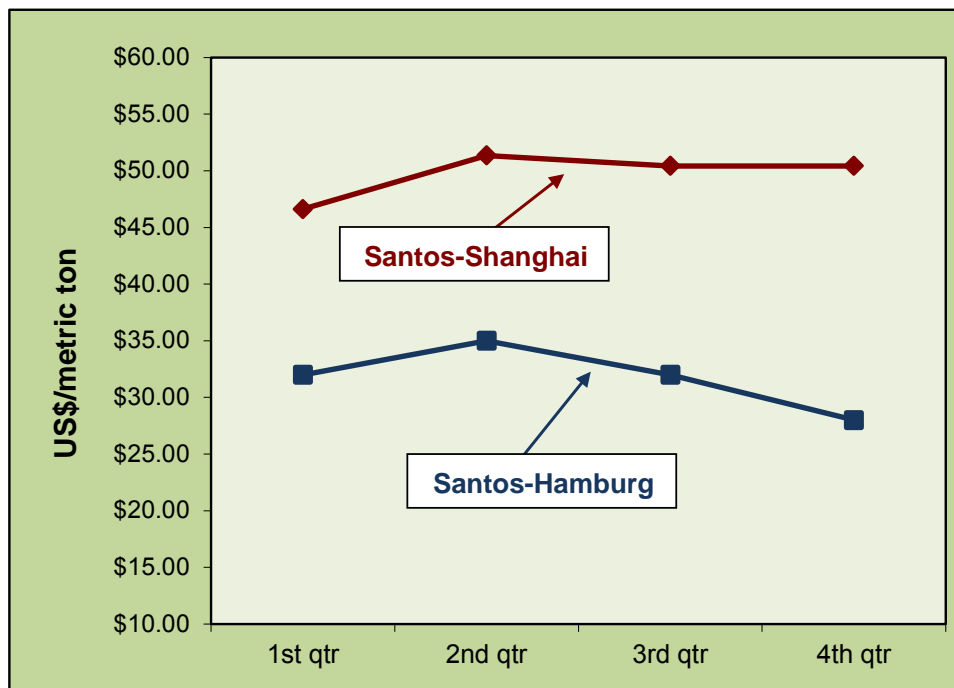
Brazil soybean exports by port



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

In 2012, ocean rates from the Port of Santos to Shanghai, China, increased in the 2nd quarter but still remained nearly 2 percent below 2011 rates, averaging \$49.70/mt. Ocean rates to Hamburg steadily increased throughout the 2nd quarter, hit a peak of \$35/mt, and declined through the 4th quarter, dropping 8 percent from 2011 rates, averaging 31.75/mt.

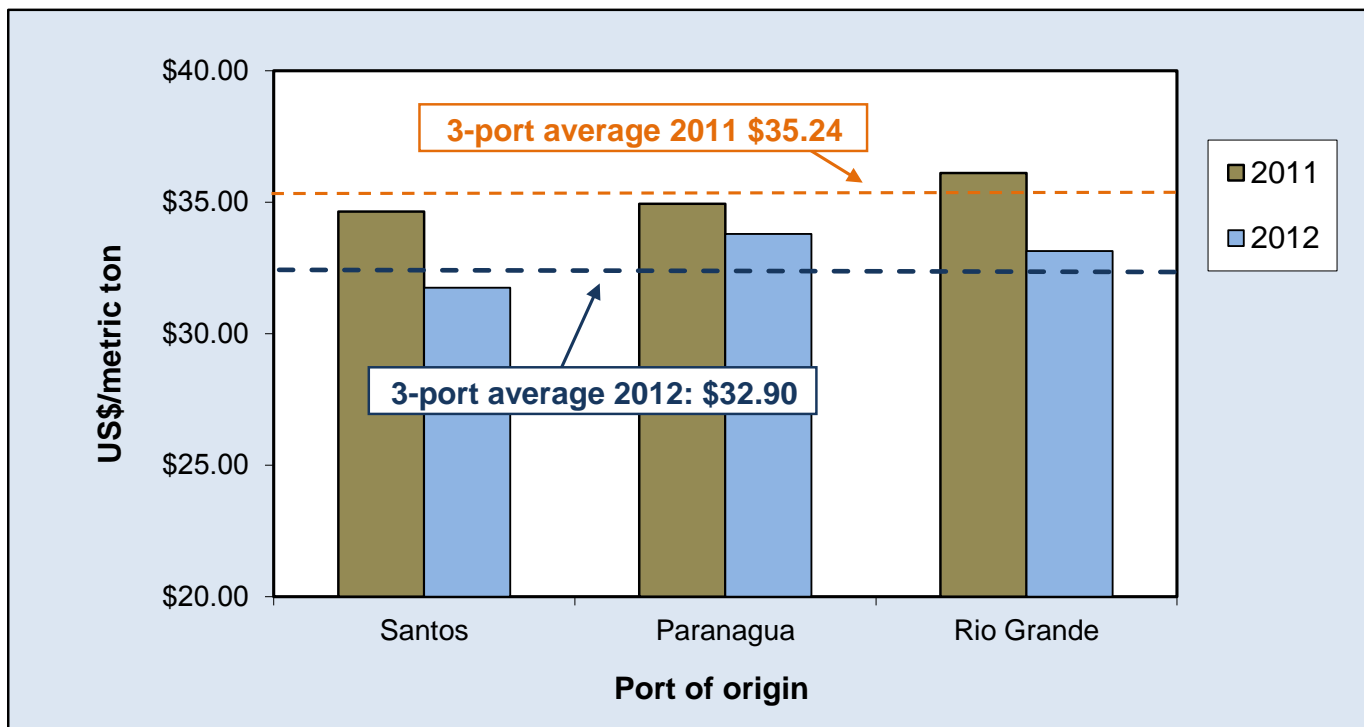
Brazilian soybean ocean freight from Santos to Shanghai and Hamburg, 2012



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

The cost to ship 1 mt of soybeans from Brazil to Hamburg by ocean-going vessel fell on average almost 7 percent from \$35.24/mt to \$32.90/mt.

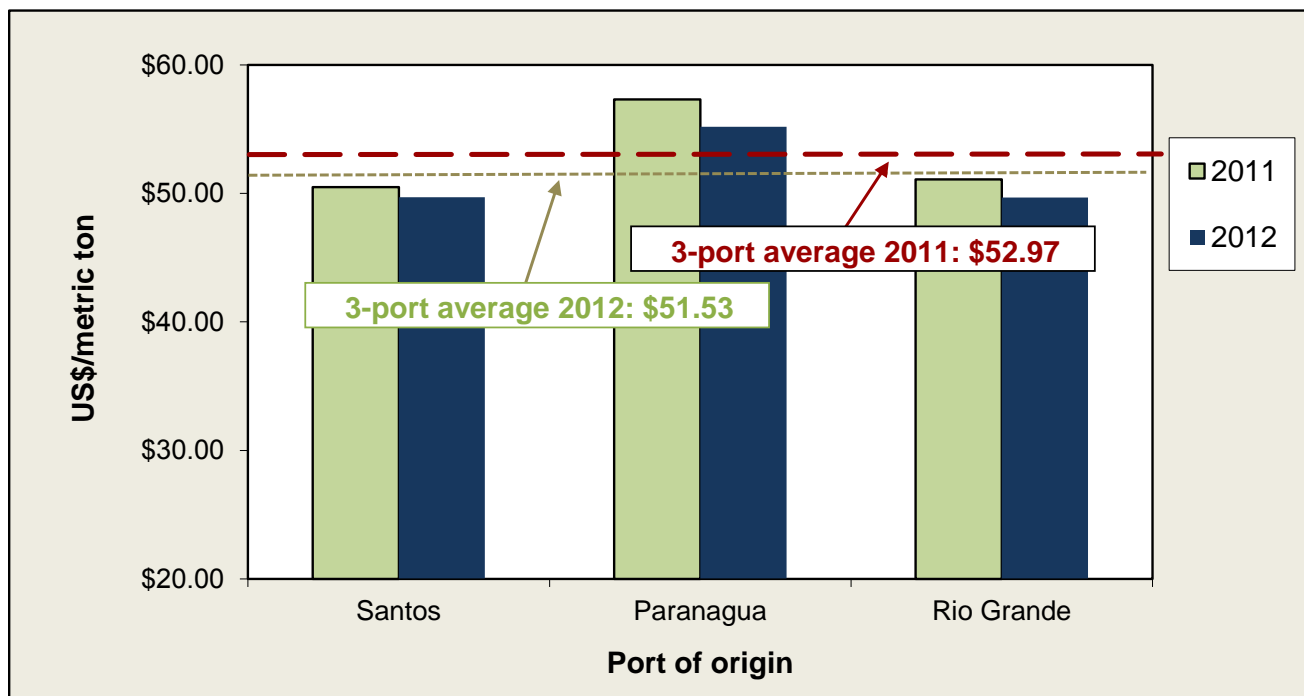
Ocean rates from Brazil to Hamburg, Germany, decreased in 2012



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

In 2012, the cost to ship 1 mt of soybeans from Brazil to Shanghai by ocean vessel slightly decreased on average from \$52.97/mt to \$51.53/mt.

Ocean rates from Brazil to Shanghai, China, declined in 2012

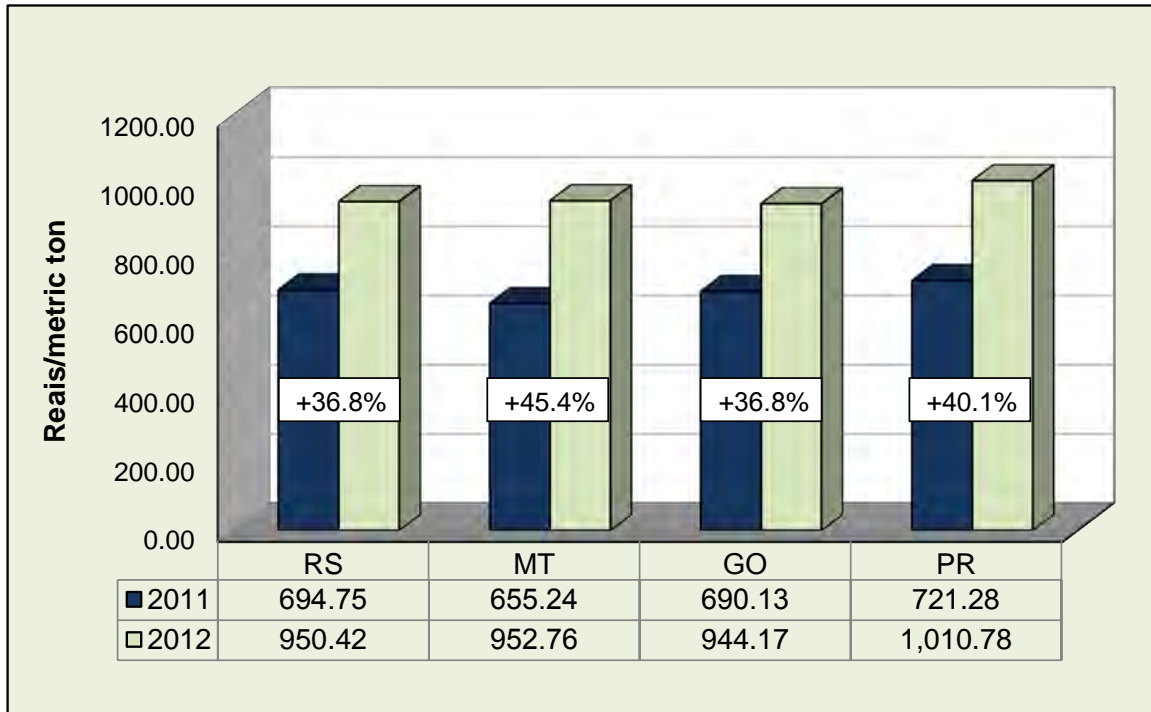


Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2012 Summary

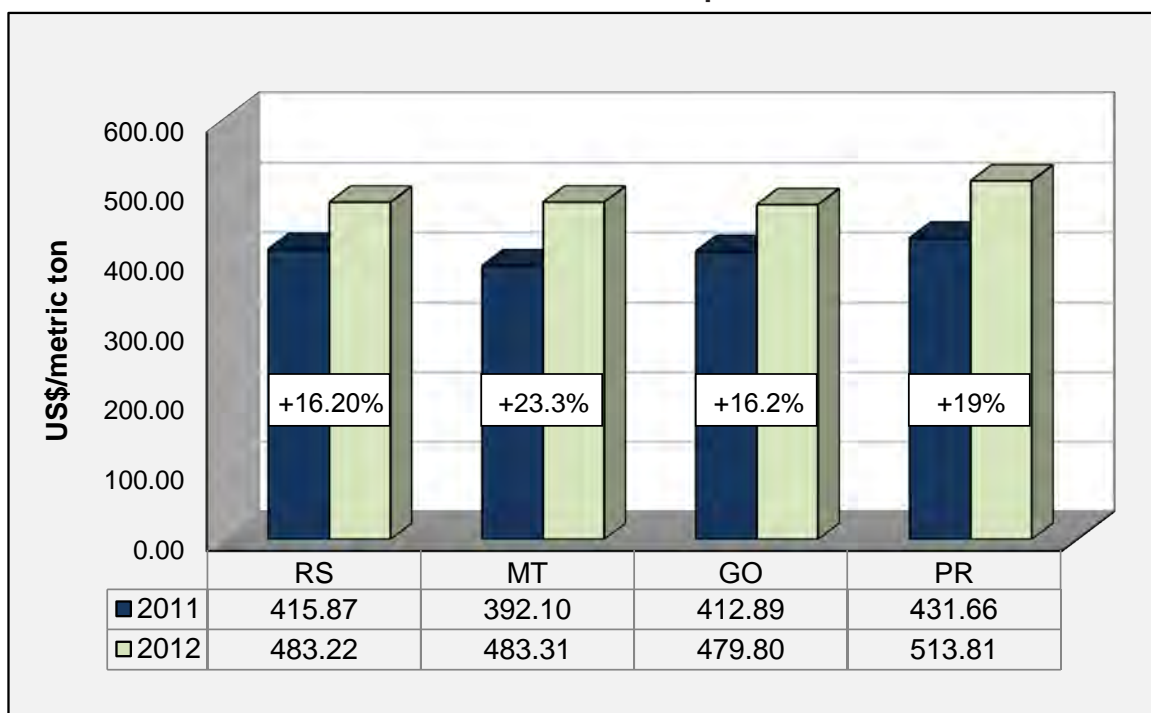
Farm prices in the Brazilian Real (R\$) increased on average almost 40 percent, from nearly 37 percent in Rio Grande do Sul (RS) and Goiás (GO) to 45 percent in Mato Grosso (MT) in 2012. However, when farm prices are measured in US\$, they increased proportionally less, nearly 19 percent, from a year earlier, due to the depreciation of the real against the U.S. dollar.

Selected Brazilian farm prices



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

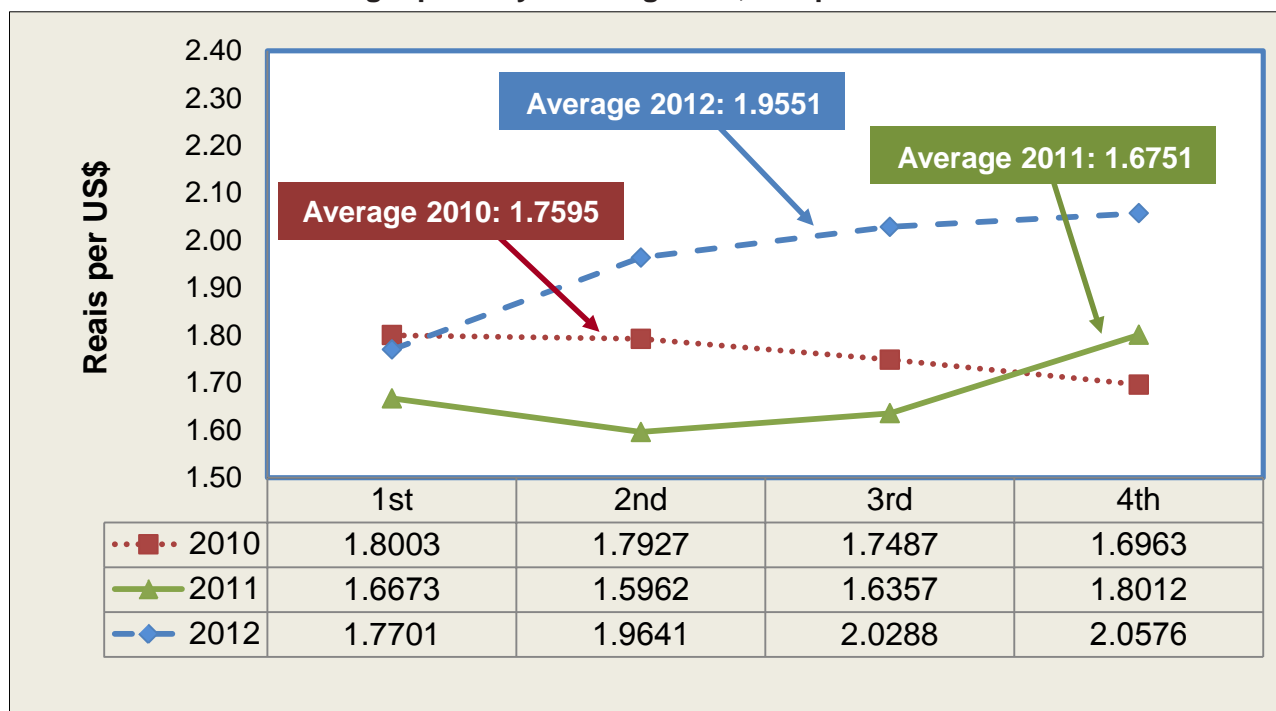
Selected Brazilian farm prices



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

In 2012, the Brazilian Real (R\$) depreciated 16.7 percent against the US\$ compared with 2011, from R\$1.6751 per US\$ to R\$1.9551.

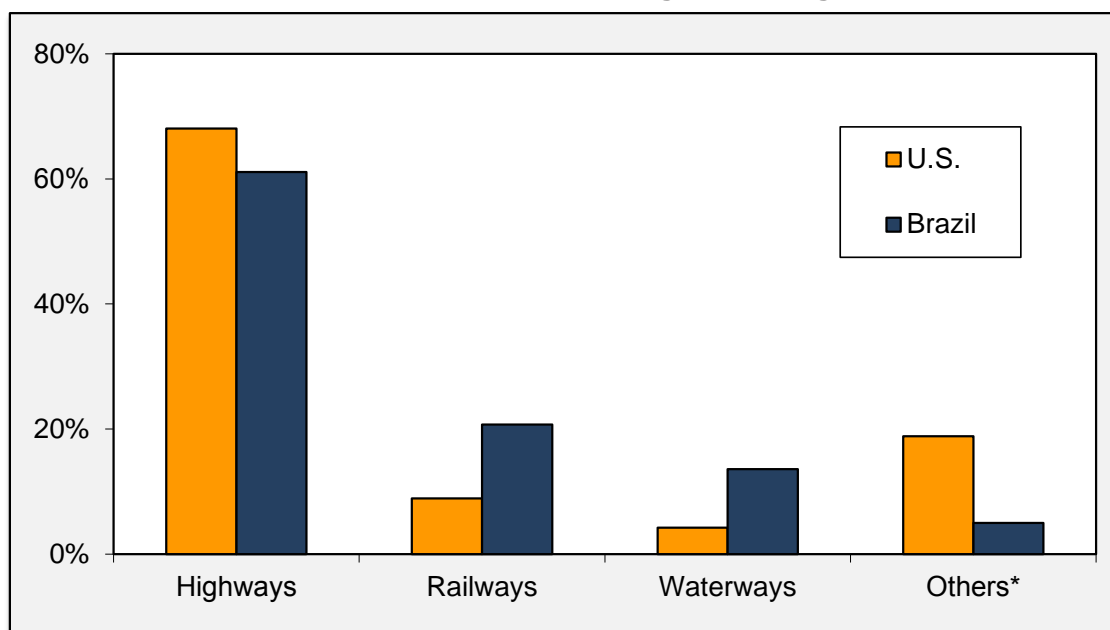
Average quarterly exchange rate, real per U.S. dollar



Source: Banco Central do Brasil

More than 60 percent of and U.S. and Brazilian cargo is moved by truck.

U.S-Brazil modal share for general cargo



*Ocean, air, pipeline, multiplemodes, etc.

Source: U.S. Department of Transportation (DOT), 2009 latest data available; Confederação Nacional do Transporte (CNT) and Agência Nacional de Transportes Terrestres (ANTT), 2007 latest data available.

2012 Summary

Brazil New Hours-of-Service Rule. On July 17, 2012, the Brazilian government implemented the first hours-of-service rules, called the “Driver’s Law,” to address safety issues. The new law reduced the number of hours a truck driver can work in a 24-hour period, thereby increasing transportation costs. The law is enforced by the Ministry of Labor and Transportation. Noncompliance with the law would result in a fine to the driver and the vehicle may be withheld until full rest is reached or the driver is replaced.

U.S.-Brazil Hours of Service Rules. The Brazilian rules are based on a 24-hour duty limit; the United States rules are based on a daily window of 14 hours with a maximum of 11 hours of driving and a 60/70-hour weekly on-duty limit (table 1). Brazilian drivers have a daily duty window of 13 hours with a maximum of 10 hours driving limit for every 24 hours of travel and a mandatory 35 hour weekly rest period. The U.S. duty limits are based on 60 hours over 7 consecutive days or 70 hours over 8 consecutive days with a voluntary 34 consecutive hour restart provision to begin a new weekly on-duty limit period. Brazilian rules require a 30-minute break every 4 hours of uninterrupted driving. Effective July 1, 2013, U.S. drivers will be required to take a 30-minute break if 8 hours have passed since their last off duty period.

The United States first hours-of-service rules were issued in 1938. Since then, the law has been revised several times. In 1995, an agricultural exception for the planting and harvesting season was added. The current agricultural exemption states that drivers transporting agricultural commodities or farm supplies for agricultural purposes are exempt from hours-of-service rules within a 150-air-mile radius of the source of the agricultural commodity or the wholesale/retail distribution point of the farm supplies, within or across State lines, during the planting and harvesting seasons as determined by each state.

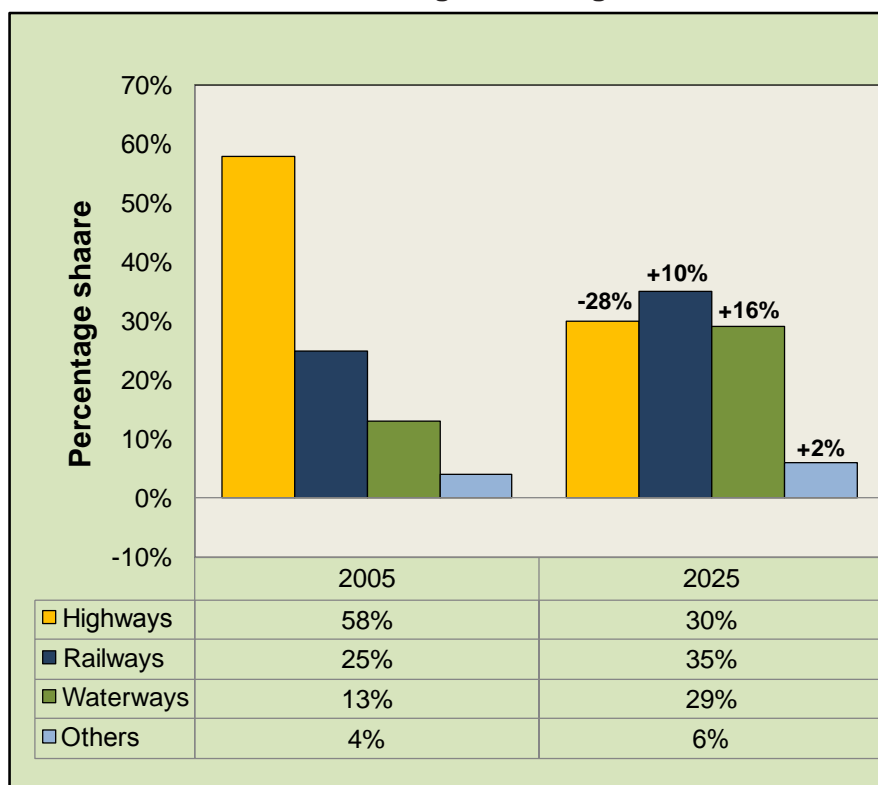
Regulation	United States	Brazil
Daily duty limit*	14 consecutive hours	13 consecutive hours
Driving limit	Maximum of 11 hours (after 10 consecutive 10 hours off duty) within the 14 hour daily duty limit	10 hours (8 hrs. regular time + 2 hours of compensatory time) within the 13 hours limit
Daily rest requirement	10 hours, not based on a 24-hour period	11 hours every 24 hours
Weekly rest	Voluntary 34 consecutive hour restart provision to begin a new 7 or 8 day on-duty** period	35 hours
Breaks	30 minute off-duty break before 8 hours have passed since their last of off-duty period. Effective July 1, 2013	30 minute break every 4 hours of driving and 1 hour for meals
Weekly limits	60/70-Duty limit: drivers are not allowed to be on-duty more than 60 hours over 7 consecutive days or 70 hours over 8 consecutive days	
Restart provision	Drivers are allowed to use the voluntary 34-hour restart provision to begin a new 7 or 8 day on-duty	
Adverse driving conditions exception ¹	2 extra hours more than allowed under normal conditions	1 extra hour

*Include work, meals, and mandatory rest; **On- duty time includes all time drivers are working for a motor carrier, whether paid or not, and all time the driver is doing paid work for anyone else such as time at plant terminal, loading, unloading, handling paper work, drug and alcohol testing, inspecting or servicing the truck (fueling and washing the truck); ¹ Means the driver did not know about the conditions when it started the run such as snow, fog or shut down traffic due to a crash. It does not include situations that the driver should know about, like congested traffic during typical rush hour.

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 and 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, which is 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 (billions)		% share
	R\$	US\$	
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

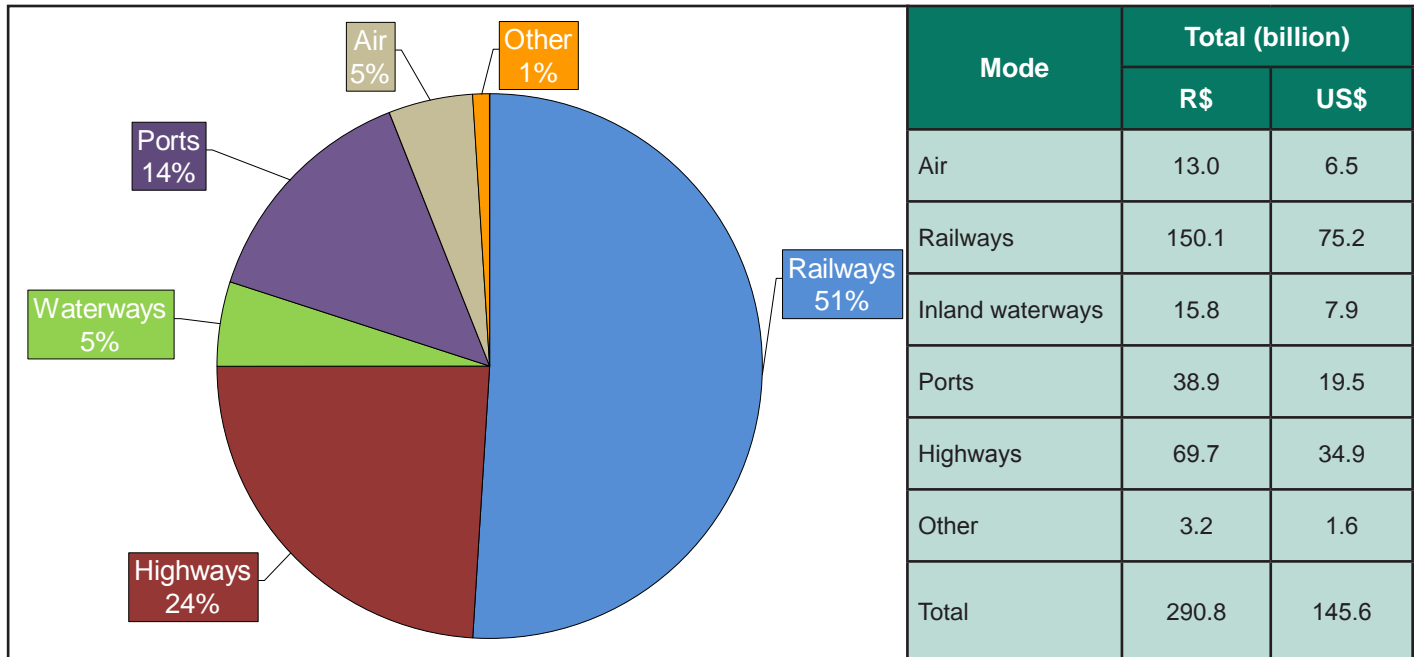
*Average 2009 exchange rate: 1 US\$ = R\$ 1.9977

Source: Brazilian Ministry of Transportation

Transportation Infrastructural Developments

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.

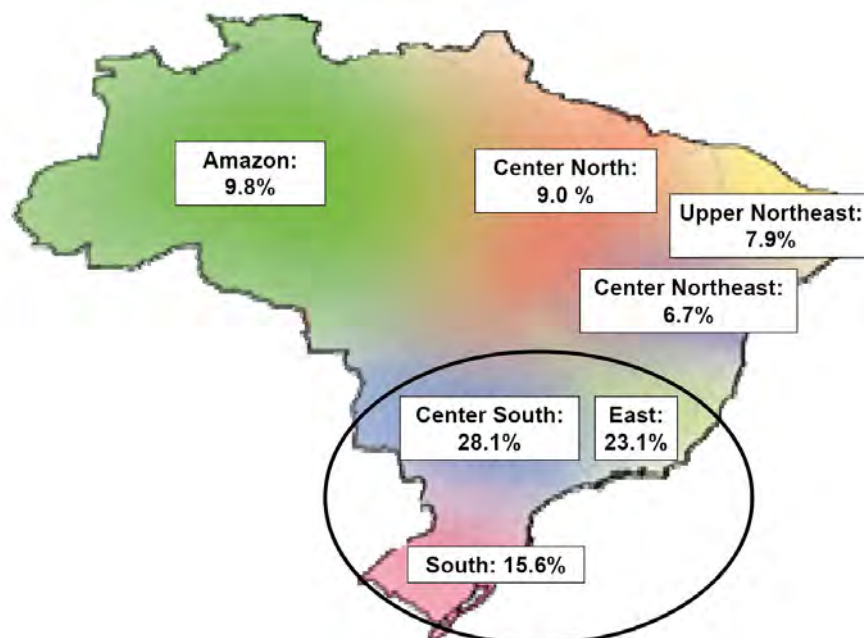
National Logistics and Transportation Program (PNLT), allocations by mode, 2008-2023



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

Transportation Indicators

Quarterly costs of transporting soybeans from Brazil to Shanghai, China										
	2012					2012				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	North MT¹ - Santos² --US\$/mt--					North MT¹ - Paranagua² --US\$/mt--				
Truck	117.52	110.07	109.73	109.80	111.78	114.44	105.33	108.07	107.88	108.93
Ocean	46.62	51.35	50.42	50.42	49.70	52.32	57.63	55.42	55.42	55.20
Total transportation	164.14	161.42	160.15	160.22	161.48	166.76	162.96	163.49	163.30	164.13
Farm price ³	377.70	448.29	570.66	536.60	483.31	377.70	448.29	570.66	536.60	483.31
Landed cost	541.84	609.71	730.81	696.82	644.80	544.47	611.25	734.15	699.90	647.44
Transport % of landed cost	30.3	26.5	21.9	23.0	28.4	30.6	26.7	22.3	23.3	25.7
	Southeast MT¹ - Santos² --US\$/mt--					North Central PR¹ - Paranagua² --US\$/mt--				
Truck	85.79	79.44	85.99	86.48	84.42	34.79	33.99	35.72	34.54	34.76
Ocean	46.62	51.35	50.42	50.42	49.70	52.32	57.63	55.42	55.42	55.20
Total transportation	132.41	130.79	136.41	136.90	134.13	87.11	91.62	91.14	89.96	89.96
Farm price ³	377.70	448.29	570.66	536.60	483.31	428.80	475.69	593.20	557.54	513.81
Landed cost	510.11	579.08	707.07	673.50	617.44	515.91	567.31	684.33	647.51	603.76
Transport % of landed cost	26.0	22.6	19.3	20.3	22.0	16.9	16.1	13.3	13.9	15.1
	South GO¹ - Santos² --US\$/mt--					Northwest RS¹ - Rio Grande² --US\$/mt--				
Truck	58.11	52.82	55.76	53.39	55.02	27.27	26.02	25.30	24.73	25.83
Ocean	46.62	51.35	50.42	50.42	49.70	47.92	52.78	49.02	49.02	49.69
Total transportation	104.73	104.17	106.18	103.81	104.72	75.19	78.80	74.32	73.75	75.51
Farm price ³	401.58	428.40	566.91	522.33	479.80	405.07	448.47	557.90	521.43	483.22
Landed cost	506.31	532.56	673.09	626.13	584.52	480.26	527.26	632.22	595.18	558.73
Transport % of landed cost	20.7	19.6	15.8	16.6	18.1	15.7	14.9	11.8	12.4	13.7

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

²Export ports

³Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Quarterly costs of transporting soybeans from Brazil to Hamburg, Germany										
	2012					2012				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	North MT¹ - Santos² --US\$/mt--					North MT¹ - Paranagua² --US\$/mt--				
Truck	117.52	110.07	109.73	109.80	111.78	114.44	105.33	108.07	107.88	108.93
Ocean	32.00	35.00	32.00	28.00	31.75	31.58	35.00	34.30	34.30	33.80
Total transportation	149.52	149.52	149.52	149.52	149.52	146.02	140.33	142.37	142.18	142.73
Farm price ³	377.70	448.29	570.66	536.60	483.31	377.70	448.29	570.66	536.60	483.31
Landed cost	527.22	527.22	527.22	527.22	527.22	523.73	588.62	713.03	678.78	626.04
Transport % of landed cost	28.4	28.4	28.4	28.4	28.4	27.9	23.8	20.0	20.9	23.2
	Southeast MT¹ - Santos² --US\$/mt--					North Central PR¹ - Paranagua² --US\$/mt--				
Truck	85.79	79.44	85.99	86.48	84.42	34.79	33.99	35.72	34.54	34.76
Ocean	32.00	35.00	32.00	28.00	31.75	31.58	35.00	34.30	34.30	33.80
Total transportation	117.79	114.44	117.99	114.48	116.17	66.37	68.99	70.02	68.84	68.56
Farm price ³	377.70	448.29	570.66	536.60	483.31	428.80	475.69	593.20	557.54	513.81
Landed cost	495.49	562.73	688.65	651.08	599.49	495.17	544.68	663.21	626.39	582.36
Transport % of landed cost	23.8	20.3	17.1	17.6	19.7	13.4	12.7	10.6	11.0	11.9
	South GO¹ - Santos² --US\$/mt--					Northwest RS¹ - Rio Grande² --US\$/mt--				
Truck	58.11	52.82	55.76	53.39	55.02	27.27	26.02	25.30	24.73	25.83
Ocean	32.00	35.00	32.00	28.00	31.75	32.08	36.50	32.00	32.00	33.15
Total transportation	90.11	87.82	87.76	81.39	86.77	59.35	62.52	57.30	56.73	58.97
Farm price ³	401.58	428.40	566.91	522.33	479.80	405.07	448.47	557.90	521.43	483.22
Landed cost	491.69	516.21	654.67	603.71	566.57	464.42	510.98	615.20	578.16	542.19
Transport % of landed cost	18.3	17.0	13.4	13.5	15.6	12.8	12.2	9.3	9.8	11.0

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

²Export ports

³Source: Companhia Nacional de Abastecimento (CONAB) www.conab.gov.br
Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

Transportation Indicators

Truck rates for selected Brazilian soybean export transportation routes, 2012

Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	Share (%) ³	Quarterly Freight Price (US\$)				Avg 2012
					1st ----- (per 100 miles) ⁴ -----	2nd	3rd	4th	
1	Northwest RS ⁵ (Cruz Alta)	Rio Grande	288	13.12	9.47	9.03	8.79	8.59	8.97
2	North MT (Sorriso)	Santos	1190	11.45	9.88	9.25	9.22	9.23	9.39
3	North MT (Sorriso)	Paranaguá	1262	10.80	9.07	8.35	8.56	8.55	8.63
4	South GO (Rio Verde)	Santos	587	5.66	9.90	9.00	9.50	9.09	9.37
5	South GO (Rio Verde)	Paranaguá	726	4.58	7.60	6.96	7.30	7.31	7.29
6	North Central PR (Londrina)	Paranaguá	268	4.06	12.98	12.68	13.33	12.89	12.97
7	Western Central PR (Mamborê)	Paranaguá	311	3.40	10.32	9.04	10.19	10.36	9.98
8	Triangle MG (Uberaba)	Santos	339	3.15	14.51	12.78	13.02	12.83	13.29
9	West PR (Assis Chateaubriand)	Paranaguá	377	3.56	9.91	9.79	10.47	10.55	10.18
10	West Extreme BA (São Desidério)	Salvador	535	5.53	11.16	10.77	10.86	10.58	10.84
11	Southeast MT (Primavera do Leste)	Santos	901	3.29	9.52	8.82	9.54	9.60	9.37
12	Southeast MT (Primavera do Leste)	Paranaguá	975	3.04	9.48	7.18	7.47	7.42	7.89
13	Southwest MS (Maracaju)	Paranaguá	612	3.34	10.16	8.88	9.65	9.79	9.62
14	Southwest MS (Maracaju)	Santos	652	3.14	10.61	9.96	10.45	10.60	10.40
15	West PR (Assis Chateaubriand)	Santos	550	2.44	10.44	10.27	9.91	9.61	10.06
16	East GO (Cristalina)	Santos	585	1.93	10.63	10.23	10.84	11.20	10.72
17	North PR (Cornélio Procópio)	Paranaguá	306	2.06	9.86	9.72	9.85	9.59	9.75
18	Eastern Central PR (Castro)	Paranaguá	130	2.43	17.97	17.00	19.11	19.36	18.36
19	South Central PR (Guarapuava)	Paranaguá	204	2.49	14.49	16.58	16.41	15.99	15.87
20	North Center MS (São Gabriel do Oeste)	Santos	720	1.95	9.23	7.78	8.90	9.31	8.81
21	Ribeirão Preto SP (Guairá)	Santos	314	0.00	12.38	11.76	11.98	11.24	11.84
22	Northeast MT (Canarana)	Santos	950	2.18	11.26	10.18	9.91	9.63	10.24
23	East MS (Chapadão do Sul)	Santos	607	0.00	10.20	9.38	10.21	11.65	10.36
24	Northeast MT (Canarana)	Paranaguá	1075	1.93	10.19	9.21	8.60	4.28	8.07
25	Western Central RS (Tupanciretã)	Rio Grande	273	2.20	12.46	11.21	10.83	10.68	11.30
26	Southwest PR (Chopininho)	Paranaguá	291	2.28	13.48	12.55	12.61	12.27	12.73
Average			578	100.0	10.50	9.82	10.08	9.90	10.07

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

²Distance from the main city of the considered region to the mentioned ports

³Share is measured as a percentage of total production

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

⁵RS = 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, 2008-2012

Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	Share (%) ³	2008	2009	2010	2011	2012	Percent Change 2008-12
					Freight price					
1	Northwest RS ⁵ (Cruz Alta)	Rio Grande	288	10.81	22.29	24.50	28.18	37.54	25.83	-31.2
2	North MT (Sorriso)	Santos	1190	13.02	115.74	97.00	116.78	123.31	111.78	-9.3
3	North MT (Sorriso)	Paranaguá	1262	12.27	109.90	91.36	110.94	117.90	108.93	-7.6
4	South GO (Rio Verde)	Santos	587	6.26	55.33	50.83	64.71	63.92	55.02	-13.9
5	South GO (Rio Verde)	Paranaguá	726	5.06	55.53	50.81	64.64	62.90	52.94	-15.8
6	North Central PR (Londrina)	Paranaguá	268	4.08	33.60	27.37	34.51	39.54	34.76	-12.1
7	Western Central PR (Mamborê)	Paranaguá	311	3.63	29.18	29.03	32.21	38.14	31.02	-18.7
8	Triangle MG (Uberaba)	Santos	339	3.18	47.01	44.69	54.49	57.43	45.04	-21.6
9	West PR (Assis Chateaubriand)	Paranaguá	377	6.21	30.43	31.17	41.46	46.12	38.39	-16.8
10	West Extreme BA (São Desidério)	Ilhéus	544	5.69	62.67	53.06	55.89	57.85	58.00	0.3
11	Southeast MT (Primavera do Leste)	Santos	901	2.89	80.61	74.39	93.41	95.82	84.42	-11.9
12	Southeast MT (Primavera do Leste)	Paranaguá	975	2.67	78.19	71.37	87.66	93.55	76.93	-17.8
13	Southwest MS (Maracaju)	Paranaguá	612	3.34	48.62	48.41	65.92	64.59	58.87	-8.9
14	Southwest MS (Maracaju)	Santos	652	3.14	52.87	53.87	71.27	71.73	67.83	-5.4
15	West PR (Assis Chateaubriand)	Santos	550	0.00	54.31	60.60	68.84	73.04	55.31	-24.3
16	Western Center RS (Tupanciretã)	Rio Grande	273	1.17	28.27	24.20	30.62	31.40	62.73	99.8
17	Southwest PR (Chopinzinho)	Paranaguá	291	1.87	26.81	27.33	30.68	34.02	29.85	-12.3
18	Eastern Central PR (Castro)	Paranaguá	130	2.47	17.45	16.36	25.88	26.55	23.87	-10.1
19	South Central PR (Guarapuava)	Paranaguá	204	2.23	27.86	22.98	33.26	36.23	32.37	-10.6
20	North Center MS (São Gabriel do Oeste)	Santos	720	1.83	54.60	54.93	69.62	70.45	63.40	-10.0
21	Ribeirão Preto SP (Guairá)	Santos	314	0.00	39.38	34.82	42.19	42.16	37.18	-11.8
22	Northeast MT (Canarana)	Santos	950	2.12	101.60	85.43	107.72	114.22	97.31	-14.8
23	Assis SP (Palmital)	Santos	285	0.00	24.89	23.26	30.36	30.23	62.88	108.0
24	Northeast MT (Canarana)	Paranaguá	1075	1.87	97.65	80.54	112.65	115.15	86.74	-24.7
25	Western Central RS (Tupanciretã)	Rio Grande	273	2.25	30.65	22.89	24.73	40.92	30.84	-24.6
26	Southwest PR (Chopinzinho)	Paranaguá	291	1.98	36.03	30.59	38.91	44.03	37.04	-15.9
Average			626	100.0	61.04	54.70	67.23	73.32	58.23	-20.6

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

²Distance from the main city of the considered region to the mentioned ports

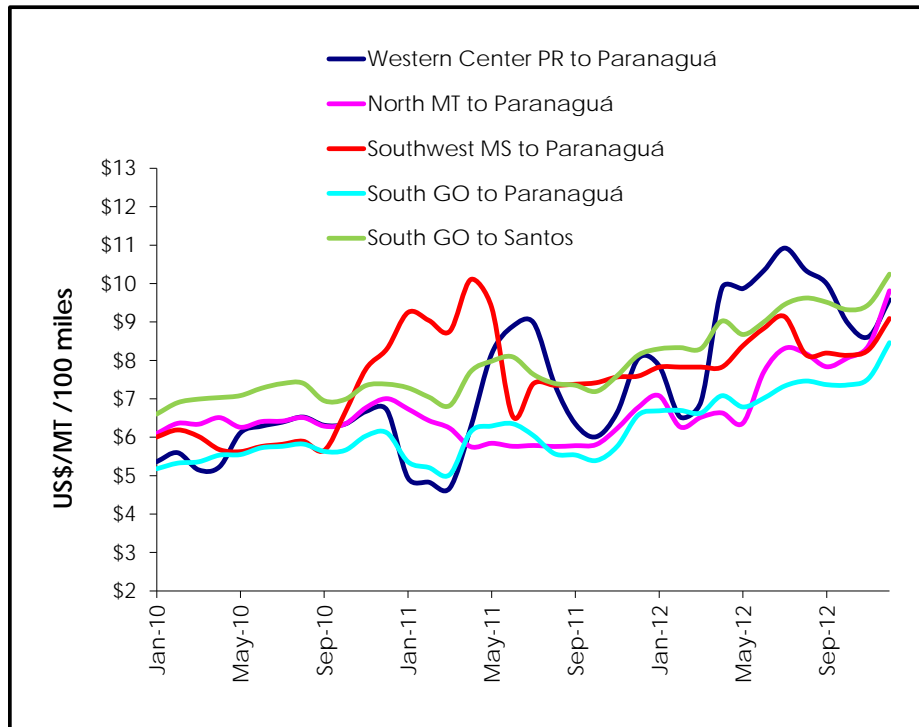
³Share is measured as a percentage of total production

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

⁵RS = Rio Grande do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso do Sul, SP = São Paulo

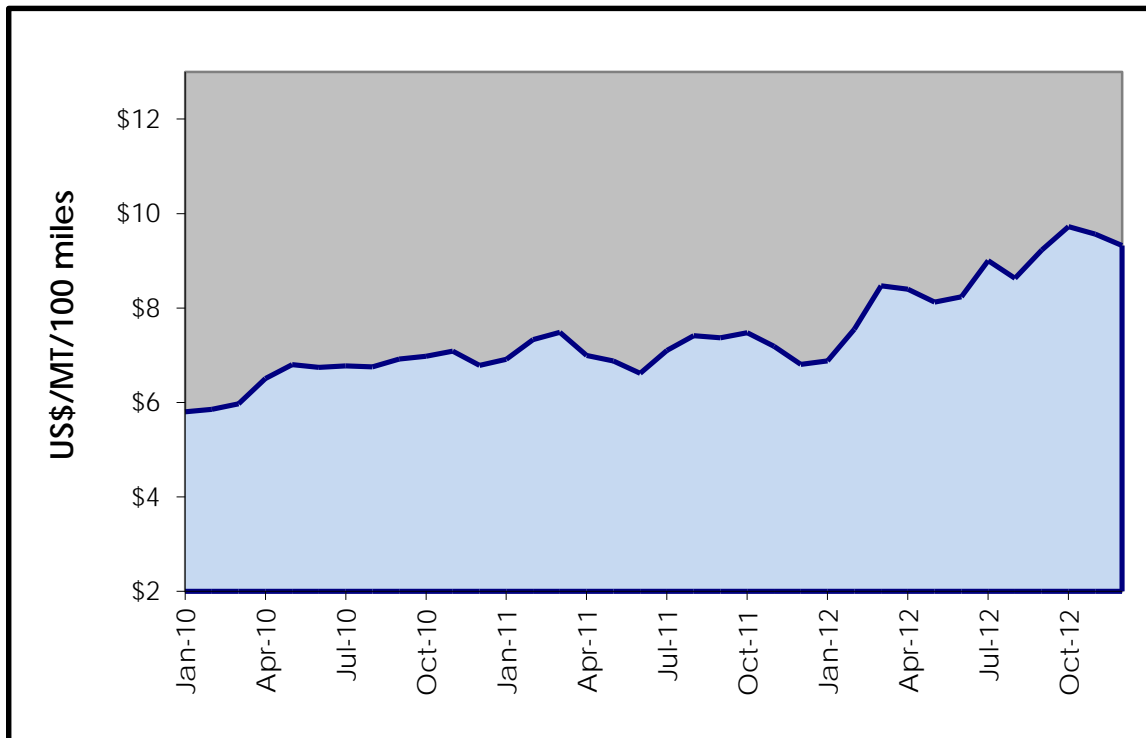
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

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, 2010/12



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

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-06	6.91	1.9	119.18	Jan-10	9.17	1.7	158.10
Feb-06	7.33	6.0	126.36	Feb-10	9.99	8.9	172.16
Mar-06	7.48	2.1	129.02	Mar-10	10.77	7.8	185.67
Apr-06	6.99	-6.6	120.57	Apr-10	10.91	1.3	188.10
May-06	6.88	-1.7	118.56	May-10	10.80	-1.1	186.10
Jun-06	6.62	-3.8	114.05	Jun-10	10.61	-1.7	182.95
Jul-06	7.10	7.3	122.41	Jul-10	10.86	2.3	187.14
Aug-06	7.41	4.4	127.79	Aug-10	11.21	3.3	193.23
Sep-06	7.37	-0.6	127.02	Sep-10	11.46	2.2	197.57
Oct-06	7.48	1.5	128.88	Oct-10	11.51	0.4	198.41
Nov-06	7.19	-3.8	123.92	Nov-10	10.86	-5.6	187.20
Dec-06	6.81	-5.3	117.32	Dec-10	10.72	-1.3	184.79
Jan-07	6.88	1.1	118.60	Jan-10	9.17	1.7	158.10
Feb-07	7.55	9.7	130.15	Feb-10	9.99	8.9	172.16
Mar-07	8.47	12.2	146.00	Mar-10	10.77	7.8	185.67
Apr-07	8.40	-0.9	144.76	Apr-10	10.91	1.3	188.10
May-07	8.12	-3.3	140.05	May-10	10.80	-1.1	186.10
Jun-07	8.24	1.4	141.99	Jun-10	10.61	15.7	182.95
Jul-07	9.00	9.3	155.20	Jul-10	10.86	2.3	187.14
Aug-07	8.63	-4.2	148.75	Aug-10	11.21	3.3	193.23
Sep-07	9.23	6.9	159.05	Sep-10	11.46	2.2	197.57
Oct-07	9.72	5.4	167.61	Oct-10	11.51	0.4	198.41
Nov-07	9.56	-1.6	164.86	Nov-10	10.86	-5.6	187.20
Dec-07	9.32	-2.5	160.71	Dec-10	10.72	-1.3	184.79
Jan-08	9.40	0.9	162.12	Jan-11	10.84	1.1	186.89
Feb-08	9.63	2.4	166.02	Feb-11	11.21	3.4	193.30
Mar-08	10.59	9.9	182.46	Mar-11	12.07	7.6	208.04
Apr-08	10.81	2.1	186.35	Apr-11	13.30	10.2	229.22
May-08	10.69	-1.1	184.32	May-11	12.01	-9.7	207.04
Jun-08	11.00	2.9	189.67	Jun-11	12.25	2.0	211.20
Jul-08	12.05	9.5	207.73	Jul-11	12.72	3.9	219.34
Aug-08	11.14	-7.6	192.00	Aug-11	12.64	-0.7	217.84
Sep-08	10.27	-7.8	177.00	Sep-11	11.43	-9.6	196.95
Oct-08	7.44	-27.5	128.24	Oct-11	11.09	-3.0	191.10
Nov-08	7.20	-3.2	124.13	Nov-11	10.70	-3.4	184.52
Dec-08	6.79	-5.7	117.11	Dec-11	10.04	-6.2	173.00
Jan-09	6.91	1.7	119.11	Jan-12	10.20	1.7	175.90
Feb-09	7.28	5.4	125.52	Feb-12	10.76	5.4	185.45
Mar-09	7.65	5.1	131.89	Mar-12	10.55	-2.0	181.82
Apr-09	8.44	10.3	145.42	Apr-12	10.45	-1.0	180.06
May-09	9.56	13.3	164.72	May-12	9.64	-7.7	166.20
Jun-09	9.74	2.0	167.97	Jun-12	9.37	-2.9	161.44
Jul-09	9.28	21.3	159.94	Jul-12	9.76	4.2	168.16
Aug-09	9.29	0.1	160.16	Aug-12	10.17	4.3	175.33
Sep-09	9.14	-1.6	157.62	Sep-12	10.30	1.3	177.54
Oct-09	9.32	1.9	160.66	Oct-12	10.13	-1.6	174.66
Nov-09	9.22	-1.1	158.93	Nov-12	9.84	-2.8	169.69
Dec-09	9.02	-2.2	155.48	Dec-12	9.73	-1.1	167.74

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

Transportation Indicators

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
2011			
1st qtr	50.00	56.25	50.50
2nd qtr	50.05	57.62	50.60
3rd qtr	52.31	59.61	53.02
4th qtr	49.65	55.80	50.26
2011 Average	50.50	57.32	51.10
2012			
1st qtr	46.62	52.32	47.92
2nd qtr	51.35	57.63	52.78
3rd qtr	50.42	55.42	49.02
4th qtr	50.42	55.42	49.02
2012 Average	49.70	55.20	49.69

*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)

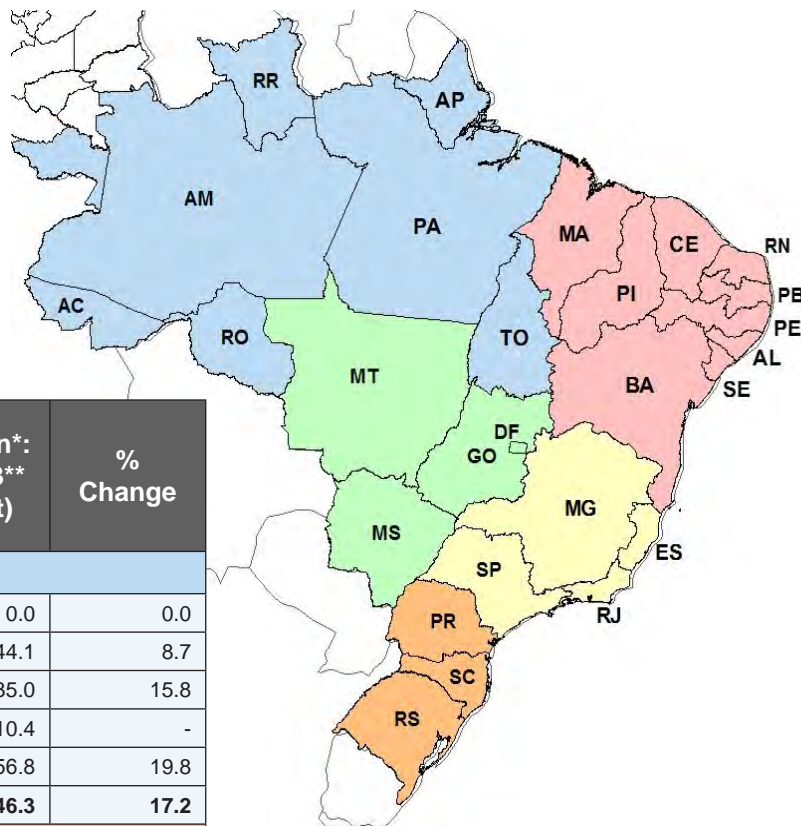
Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)*			
	Ports		
	Santos	Paranaguá	Rio Grande
2006			
1st qtr	39.51	38.51	37.06
2nd qtr	36.91	35.91	35.41
3rd qtr	50.24	49.24	48.74
4th qtr	60.40	59.40	58.90
2006 Average	46.76	45.76	45.03
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
2011			
1st qtr	34.96	33.86	35.43
2nd qtr	35.00	36.00	36.00
3rd qtr	36.65	37.29	37.81
4th qtr	32.00	32.63	35.22
2011 Average	34.65	34.95	36.12
2012			
1st qtr	32.00	31.58	32.08
2nd qtr	35.00	35.00	36.50
3rd qtr	32.00	34.30	32.00
4th qtr	28.00	34.30	32.00
2012 Average	31.75	33.80	33.15

*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*: 2011-2012 (1,000 mt)	Production*: 2012-2013** (1,000 mt)	% Change
North			
Amazonas (AM)	0.0	0.0	0.0
Pará (PA)	316.7	344.1	8.7
Rondônia (RO)	462.2	535.0	15.8
Roraima (RR)	10.4	10.4	-
Tocantins (TO)	1,382.9	1,656.8	19.8
Total	2,172.2	2,546.3	17.2
Northeast			
Bahia (BA)	3,182.6	3,230.4	1.5
Maranhão (MA)	1,650.6	1,703.6	3.2
Piauí (PI)	1,263.1	1,278.6	1.2
Total	6,096.3	6,212.6	1.9
Midwest			
Distrito Federal (DF)	176.0	176.0	0.0
Goiás (GO)	8,251.5	8,952.8	8.5
Mato Grosso (MT)	21,849.00	24,158.20	10.6
Mato Grosso do Sul (MS)	4,628.3	5,748.5	24.2
Total	34,904.8	39,035.5	11.8
Southeast			
Minas Gerais (MG)	3,058.7	3,416.9	11.7
São Paulo (SP)	1,597.6	1,767.7	10.6
Total	4,656.3	5,184.6	11.3
South			
Paraná (PR)	10,941.9	15,357.2	40.4
Rio Grande do Sul (RS)	6,526.6	12,193.1	86.8
Santa Catarina (SC)	1,084.9	1,534.2	41.4
Total	18,553.4	29,084.5	56.8
Total Production:	66,383.0	82,063.5	23.6

*Data based on calendar year, January-December

**Forecast, April 2013

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
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	25,842	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	29,728	32,513	2,138
2005/06	22,229	2,138	57,000	40	59,178	24,770	28,756	31,656	2,752
2006/07	20,700	2,752	59,000	108	61,860	23,805	31,511	34,361	3,694
2007/08	21,300	3,694	61,000	83	64,777	24,515	31,895	34,695	5,567
2008/09	21,700	5,567	57,800	124	63,491	28,041	30,779	33,544	1,906
2009/10	23,500	1,906	69,000	150	71,056	29,188	35,701	38,601	3,267
2010/11	24,200	3,267	75,300	40	78,607	33,789	37,264	40,264	4,554
2011/12	25,000	4,554	66,500	298	71,352	31,905	34,687	37,787	1,660
2012/13**	27,500	1,660	83,500	35	85,195	40,250	37,575	40,745	4,200

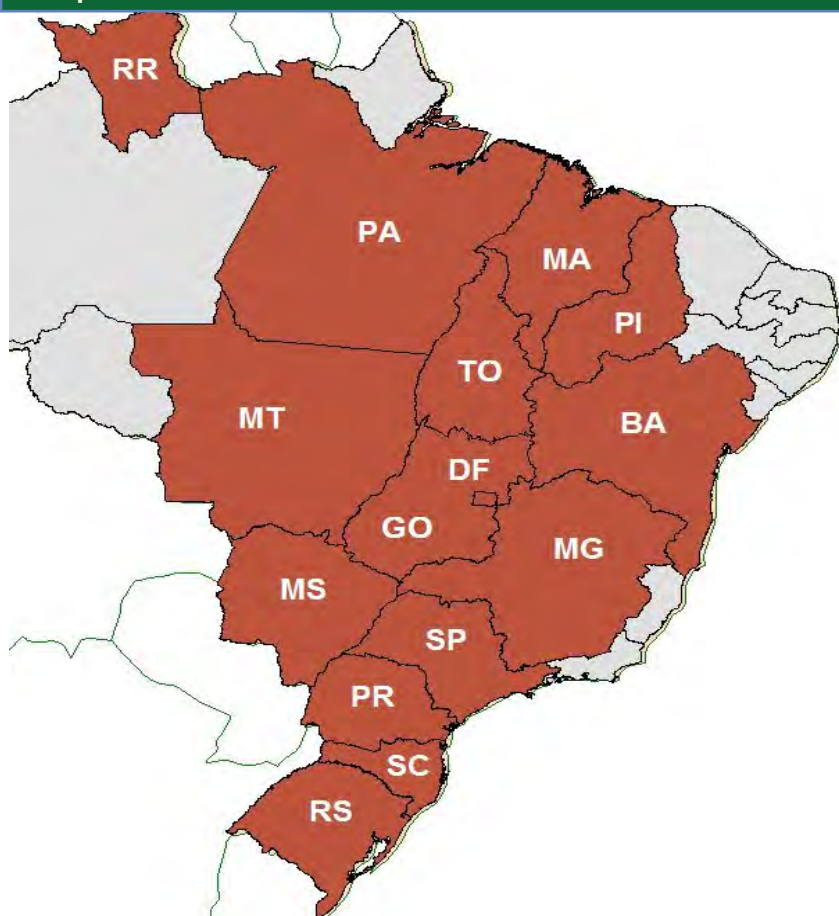
*Data based on Brazil's local February/January Marketing Year (MY)

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

**Forecast: April 10, 2013

Source: USDA/Foreign Agricultural Service/Circular Series

Exports

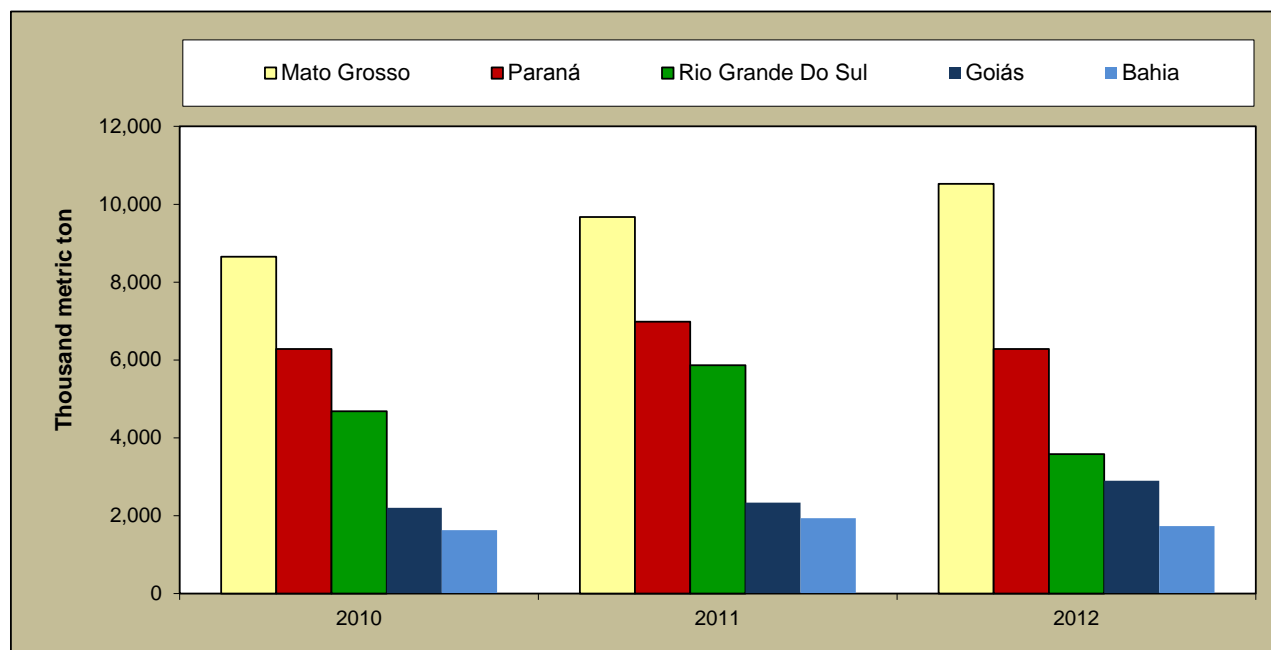


Top 15 Brazilian soybean exporting states

State	2006	2007	2008	2009	2010	2011	2012	Rank	
	-----metric ton-----								
Mato Grosso	9,920,608	6,822,133	8,661,077	10,647,895	8,654,767	9,673,542	10,523,386	1	
Paraná	2,889,768	3,728,751	4,812,766	4,630,137	6,280,750	6,982,940	6,281,370	2	
Rio Grande Do Sul	3,278,282	5,500,862	3,515,963	4,853,788	4,683,882	5,866,515	3,585,651	3	
Goiás	2,800,223	2,210,734	2,311,906	2,308,436	2,203,874	2,337,625	2,897,632	4	
Bahia	448,709	708,878	951,041	1,541,566	1,632,045	1,935,990	1,732,589	5	
Maranhão	1,021,543	841,943	920,902	919,650	1,040,758	1,241,827	1,347,239	6	
São Paulo	939,176	630,890	761,654	640,622	773,097	984,549	1,393,852	7	
Mato Grosso Do Sul	1,182,094	1,065,858	1,006,346	781,845	1,367,517	1,418,677	1,378,377	8	
Minas Gerais	1,178,234	379,801	371,266	780,860	678,217	623,111	835,937	9	
Tocantins	633,957	434,542	551,885	557,841	677,124	712,899	796,758	10	
Santa Catarina	203,916	1,049,896	422,420	254,171	375,407	433,285	577,839	12	
Rondônia	250,121	229,108	312,362	314,402	357,057	286,610	481,253	11	
Pará	81,853	67,485	129,639	124,506	167,840	239,704	323,873	14	
Piauí	24,429	9,132	131,343	150,298	119,043	185,846	253,777	13	
Distrito Federal	57,872	30,113	38,841	47,382	33,283	73,186	31,983	15	
Others	38,832	30,324	12,930	8,292	20,563	5,073	19,988		
Total	24,949,617	23,740,450	24,912,341	28,561,691	29,065,224	33,001,379	32,461,504		

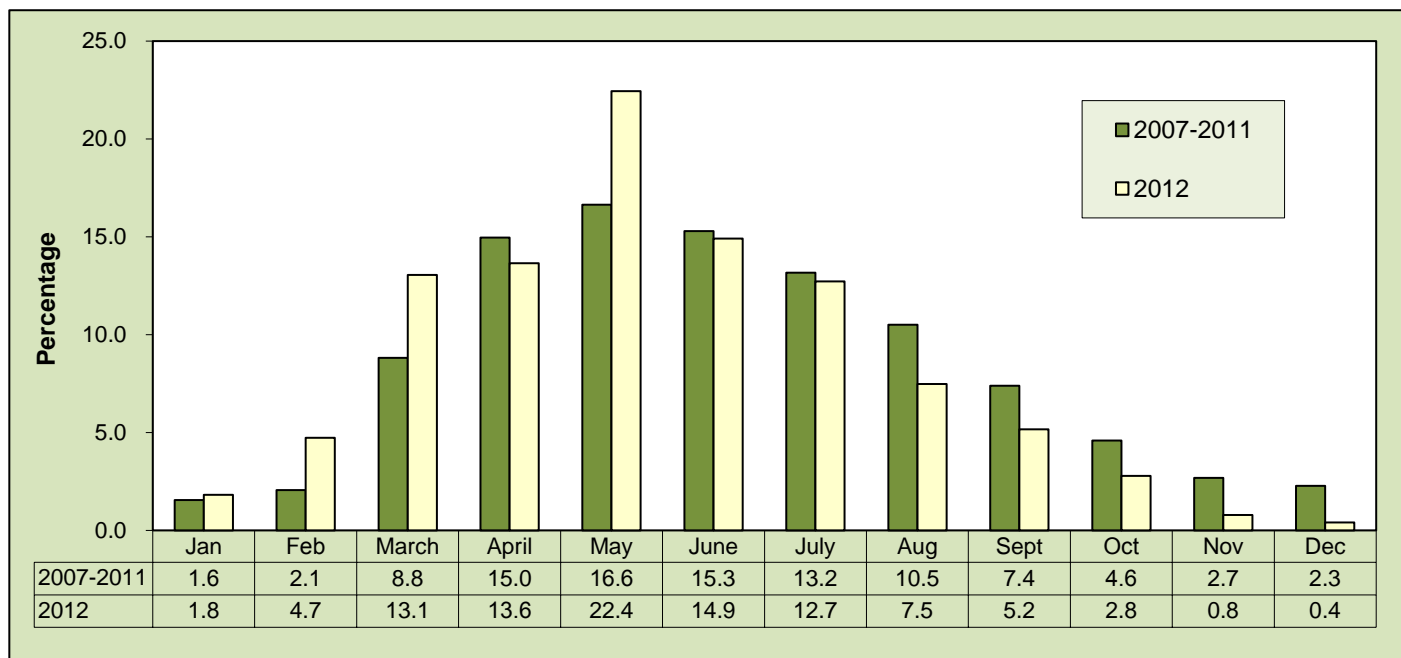
Sources: Secretaria de Comércio Exterior (SECEX)

Top 5 Brazil soybean exporting states



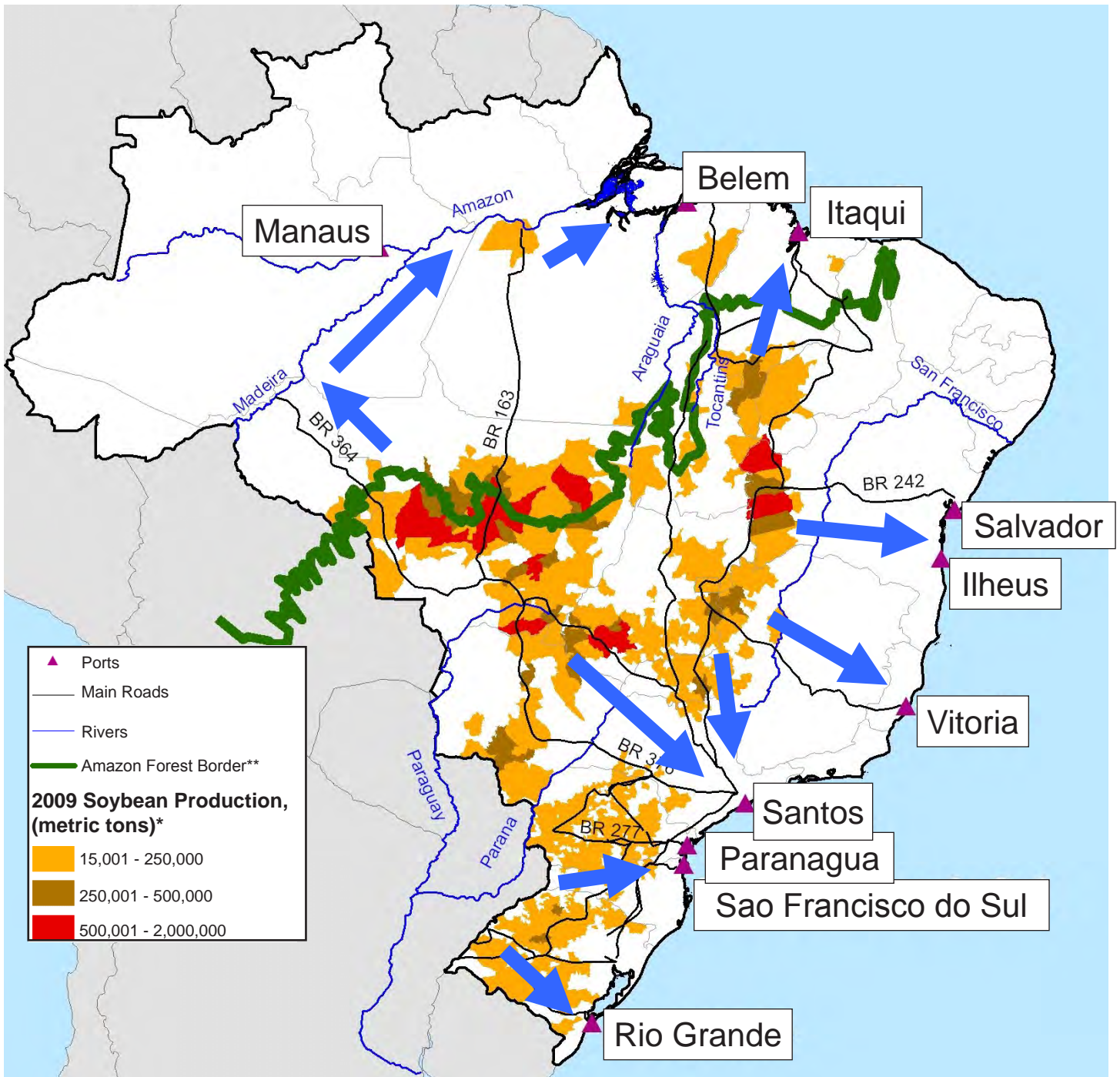
Sources: Secretaria de Comércio Exterior (SECEX) and Companhia Nacional de Abastecimento (CONAB)

Brazil soybean average monthly exports



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

Main export routes for soybeans

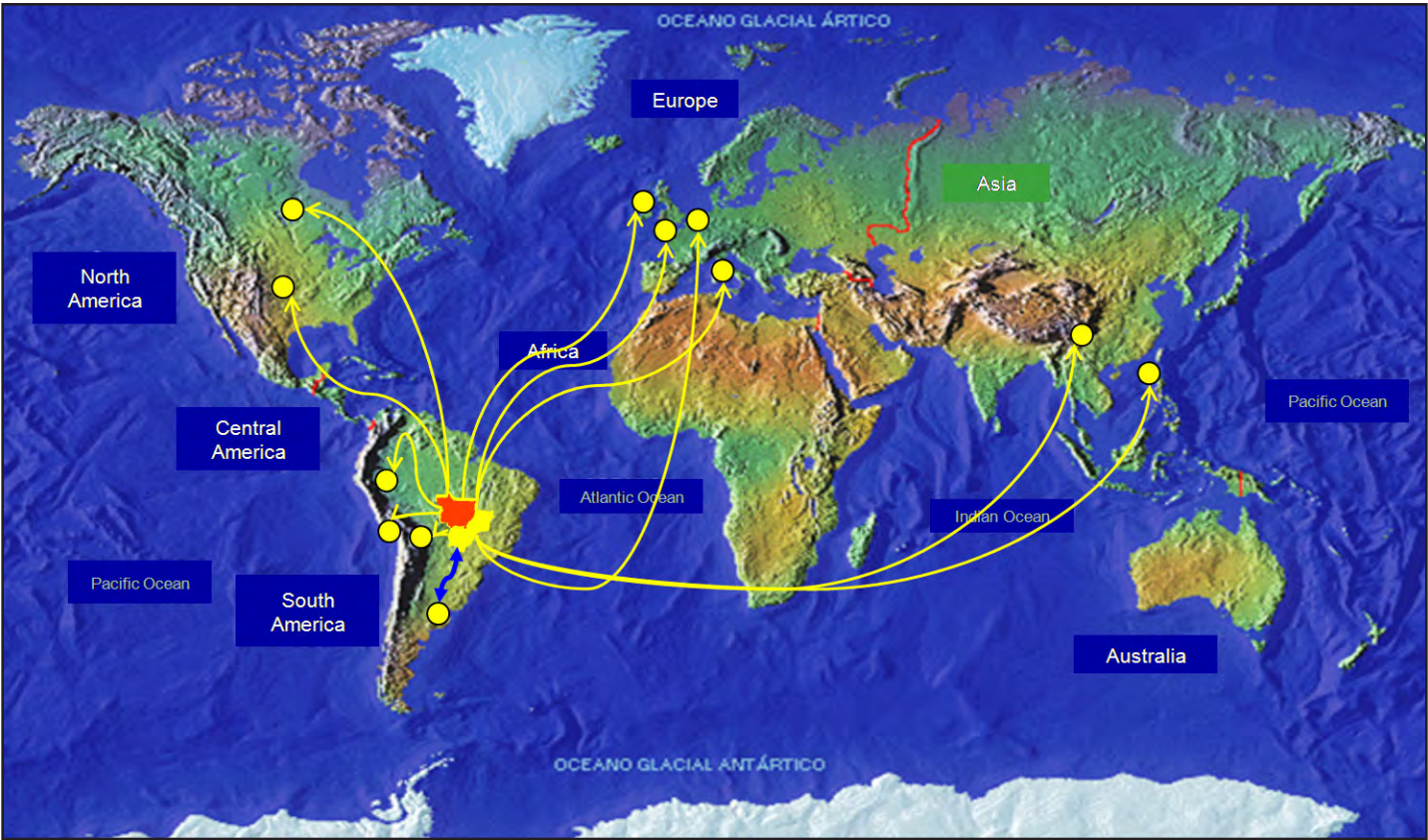


*Companhia Nacional de Abastecimento (CONAB)

**World Wildlife Fund (WWF)

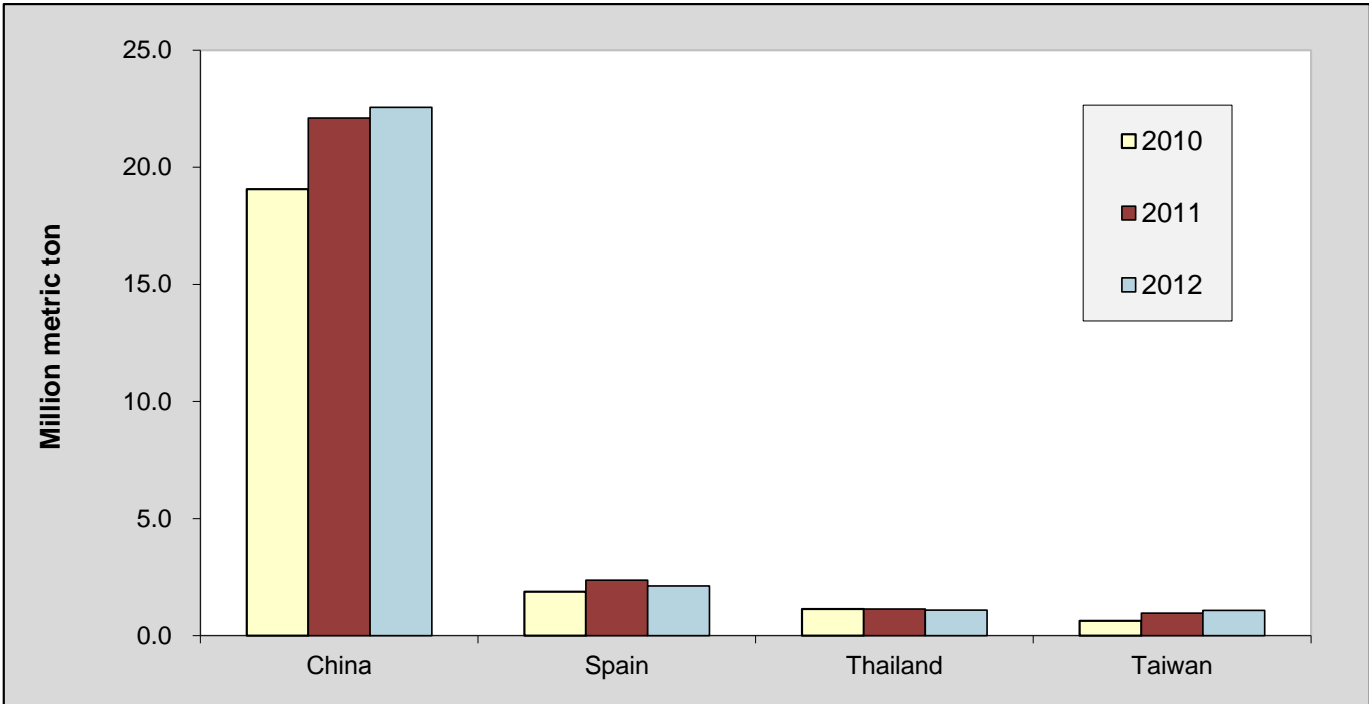
Source: USDA/Agricultural Marketing Service & Foreign Agricultural Service

World export routes for Brazilian soybeans



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

Brazil soybeans: top 4 export destinations

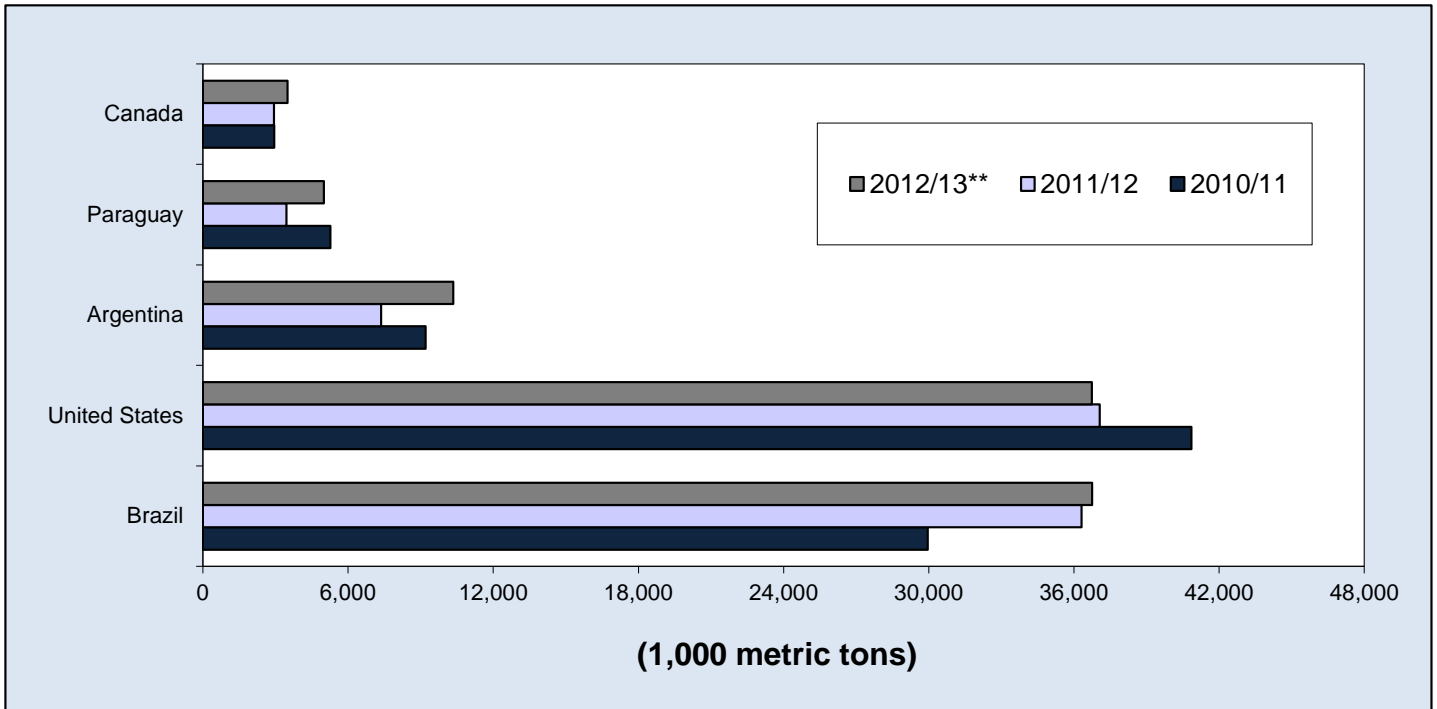


Source: Secretaria de Comércio Exterior (SECEX), MDIC

Exports

During 2012, Brazil was the second largest soybean exporter country after the United States.

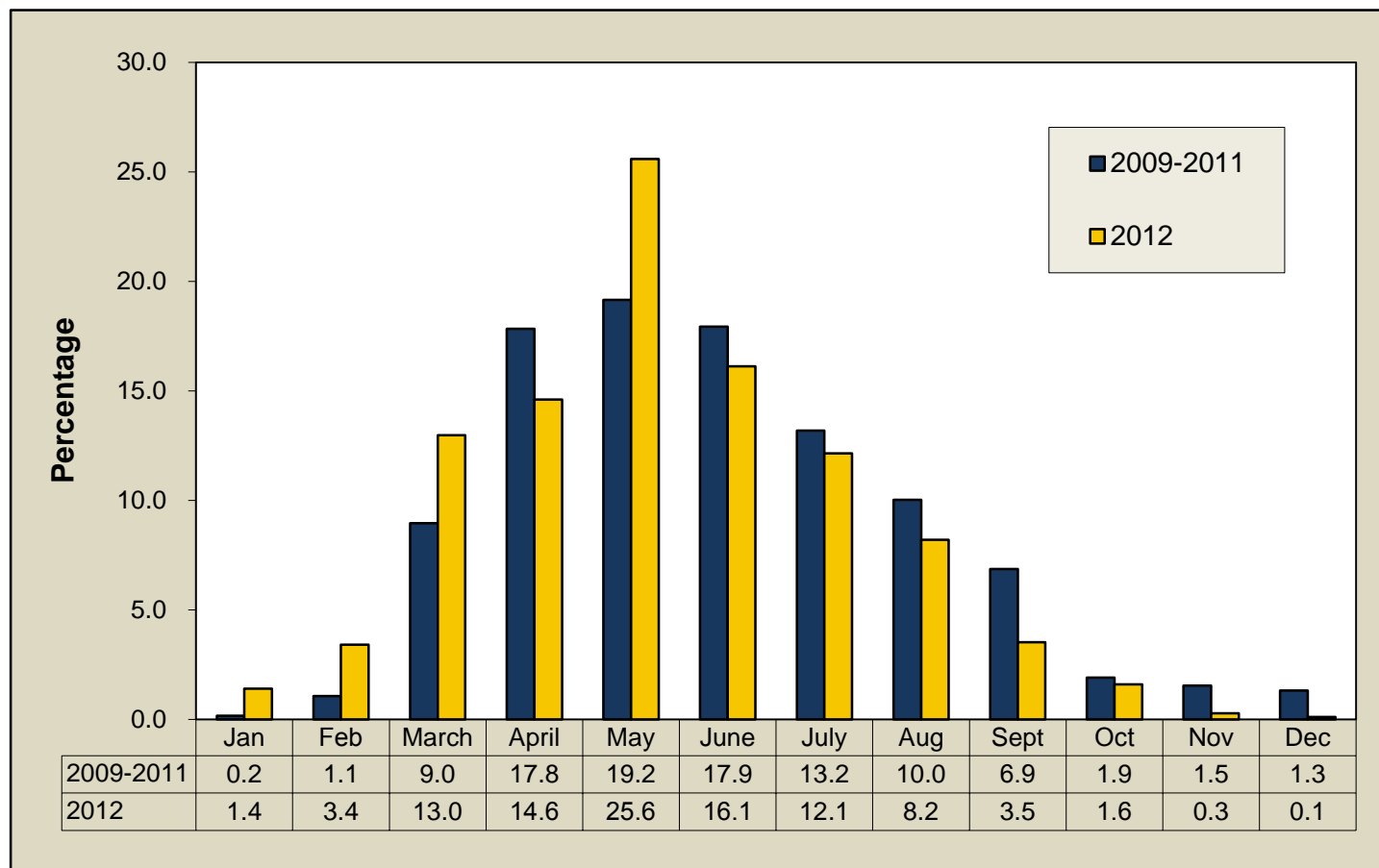
Top 5 world soybean exporting countries



*Forecast: April 10, 2013
Source: USDA/FAS

China is Brazil's largest soybean buyer, accounting for nearly 70 percent of total soybean exports in 2012. Brazil soybean exports to China usually peak in May and almost finish by the end of September. Over 90 percent of Brazil soybeans exports to China originated from Mato Grosso, Parana, Rio Grande Do Sul, Sao Paulo, and Mato Grosso do Sul in 2012.

Brazil soybean average monthly exports to China



Source: Secretaria de Comércio Exterior (SECEX)

Exports to China

China's share of Brazilian soybean exports increased from 43 percent in 2006 to almost 70 percent in 2012. Mato Grosso (MT), Brazil's largest soybean-producer-exporter State, sold nearly 66 percent of its 2012 soybeans to China.

Top 15 Mato Grosso (MT) soybean export destinations									
State	2006	2007	2008	2009	2010	2011	2012	% share	Rank
	-- metric ton --								
China	3,317,110	2,399,838	3,145,658	5,495,322	5,421,825	6,241,745	6,907,993	65.6	1
Spain	781,710	754,563	1,290,682	934,334	613,363	748,051	882,336	8.4	2
Netherlands	1,738,796	1,311,940	1,320,667	958,421	578,894	517,331	503,341	4.8	3
Thailand	429,355	133,892	482,039	293,137	326,364	522,515	389,921	3.7	4
Norway	353,280	120,479	298,561	283,606	290,044	330,812	302,502	2.9	5
Taiwan	125,286	0	24,253	70,524	11,179	51,800	292,199	2.8	6
United Kingdom	324,626	334,105	363,256	472,638	324,352	448,817	282,671	2.7	7
Portugal	226,298	137,813	207,275	271,458	82,485	20,360	202,950	1.9	8
Vietnam	0	0	0	0	0	120,563	157,229	1.5	9
Japan	110,137	42,802	83,807	157,498	123,432	70,587	157,229	1.5	10
Saudi Arabia	0	0	4,000	101,069	23,730	140,094	84,460	0.8	12
Russian Federation	0	115,127	61,490	0	218,182	180,332	84,265	0.8	11
South Korea	471,991	122,434	98,925	82,845	23,413	31,456	61,488	0.6	14
Belgium	170,150	192,062	99,578	136,134	24,500	29,081	27,138	0.3	13
Israel	5,000	31,028	7,500	34,666	11,556	34,507	7,558	0.1	15
Others	1,866,869	1,126,050	1,173,386	1,356,243	581,448	185,491	180,106	1.7	
Mato Grosso total	2,263,291,964	6,822,133	8,661,077	10,647,895	8,654,767	9,673,542	10,523,386	100.0	
MT % share of Brazil exports to China	30.8	23.8	26.6	34.5	28.4	28.2	30.6		
Brazil exports to China	10,769,170	10,071,893	11,823,583	15,939,970	19,064,473	22,104,689	22,558,957		
Brazil total exports	24,949,617	23,740,450	24,912,341	28,561,691	29,065,224	33,001,379	32,461,504		
China % share of Brazil total exports	43.2	42.4	47.5	55.8	65.6	67.0	69.5		

Source: Secretaria de Comércio Exterior (SECEX)

Exports to China

China prefers to buy soybeans from the southern ports of Santos, Paranaguá, and Rio Grande via Cape of Good Hope in South Africa to Shanghai because it is cheaper than from the remote ports of the Amazon River and the Northeast. For example, by buying soybeans from Santos, China saves 6-8 days in shipping costs compared to Manaus; and 2-3 days compared to Itaquí. In 2012, these 3 southern ports accounted for about 74 percent of Brazil's soybean exports to China and 51 percent of Brazil's total exports.

Total Brazil soybean exports by port to China, 2010-12									
Ports	2010	2011	2012	% share of exports to China			% share of Brazil total exports		
	-- metric ton --			2010	2011	2012	2010	2011	2012
Santos	6,660,349	7,427,499	8,363,170	34.9	33.6	37.2	22.9	22.5	25.8
Paranaguá	3,866,327	4,700,085	5,161,510	20.3	21.3	23.0	13.3	14.2	15.9
Rio Grande	3,785,771	4,552,649	3,093,246	19.9	20.6	13.8	13.0	13.8	9.5
Subtotal	14,312,447	16,680,233	16,617,926	75.1	75.5	74.0	49.2	50.5	51.2
Others	4,752,026	5,424,456	5,852,998	24.9	24.5	26.0	16.3	16.4	18.0
Total exports to China	19,064,473	22,104,689	22,470,924	100.0	100.0	100.0	65.6	67.0	69.2
Brazil total exports	29,064,981	33,001,321	32,461,504						

Source: Secretaria de Comércio Exterior (SECEX)

Distance from selected Brazilian ports to Shanghai, China, and Hamburg, Germany				
Brazilian port	Route through	Destination	Nautical miles	Days at sea
Manaus	Good Hope Panama Canal	Shanghai, China	12,880	41.3
		Shanghai, China	11,592	37.2
		Hamburg, Germany	5,283	16.9
Santos	Good Hope	Shanghai, China	11,056	35.4
		Hamburg, Germany	5,683	18.2
Itaquí	Good Hope Panama Canal	Shanghai, China	11,709	37.5
		Shanghai, China	11,087	35.5
		Hamburg, Germany	4,361	14
Vitoria	Good Hope Panama Canal	Shanghai, China	10,857	34.8
		Shanghai, China	12,587	40.3
		Hamburg, Germany	5,227	16.8
Salvador	Good Hope Panama Canal	Shanghai, China	10,997	35.2
		Shanghai, China	12,170	39
		Hamburg, Germany	4,811	15.4
Paranaguá	Good Hope Panama Canal	Shanghai, China	11,111	35.6
		Shanghai, China	13,165	42.2
		Hamburg, Germany	5,805	18.6
Rio Grande	Good Hope Panama Canal Cape Horn	Shanghai, China	11,129	35.7
		Shanghai, China	13,564	43.5
		Shanghai, China	11,397	36.5
		Hamburg, Germany	6,204	19.9

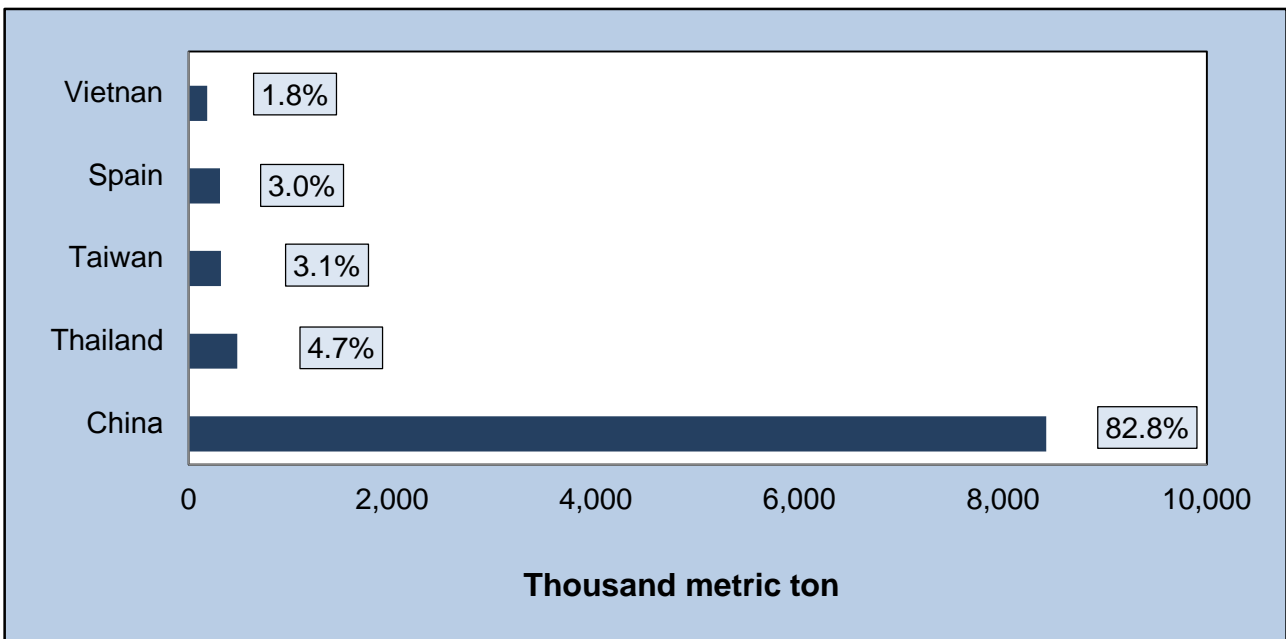
*Vessel speed: 13 knots

Source: <http://sea-distances.com>

Exports to China

In 2012, China was the major destination of Brazilian soybeans through the port of Santos, Brazil's largest soybean exporting port.

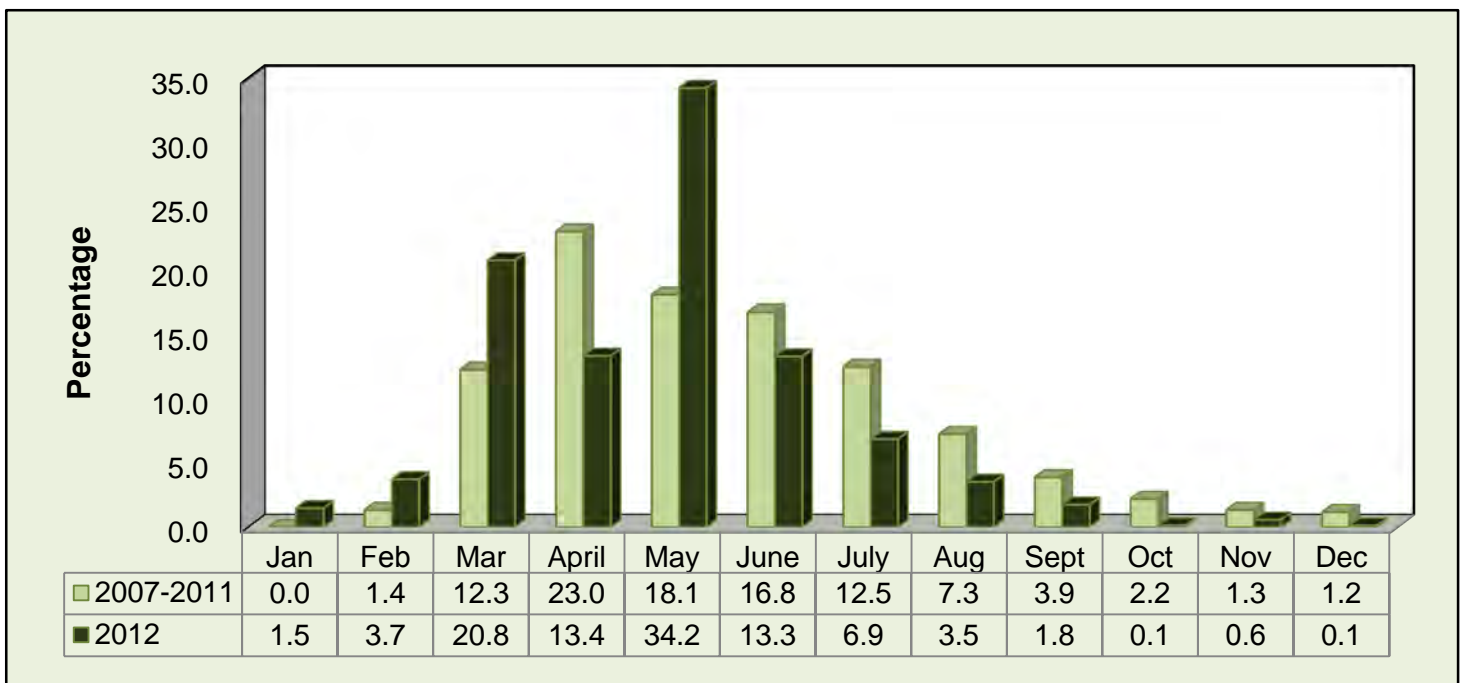
Port of Santos soybean exports by country, 2012



Source: Secretaria de Comércio Exterior (SECEX)

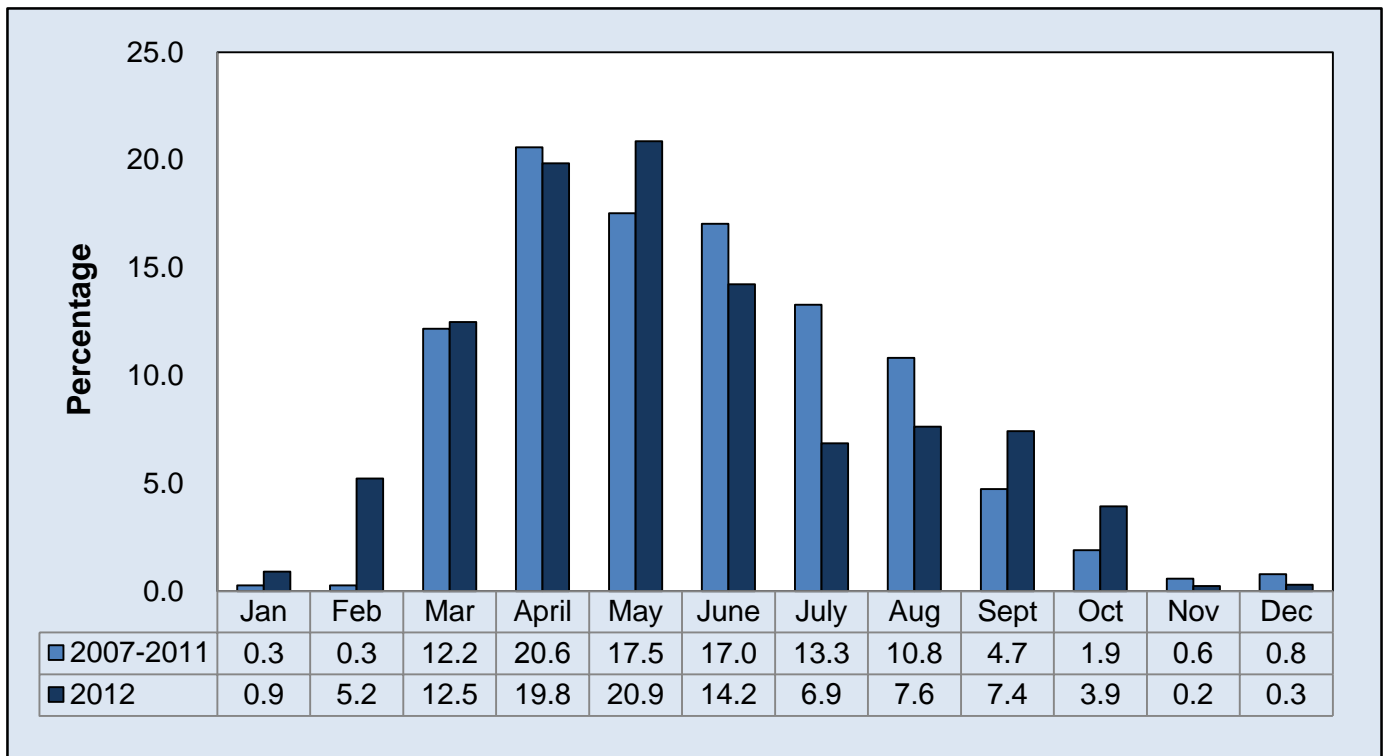
The peak of Brazilian soybean shipments to China from Santos and Paranaguá usually occurs during April—May, except for Rio Grande Sul that occurs from May—July.

Port of Santos soybean average monthly exports to China



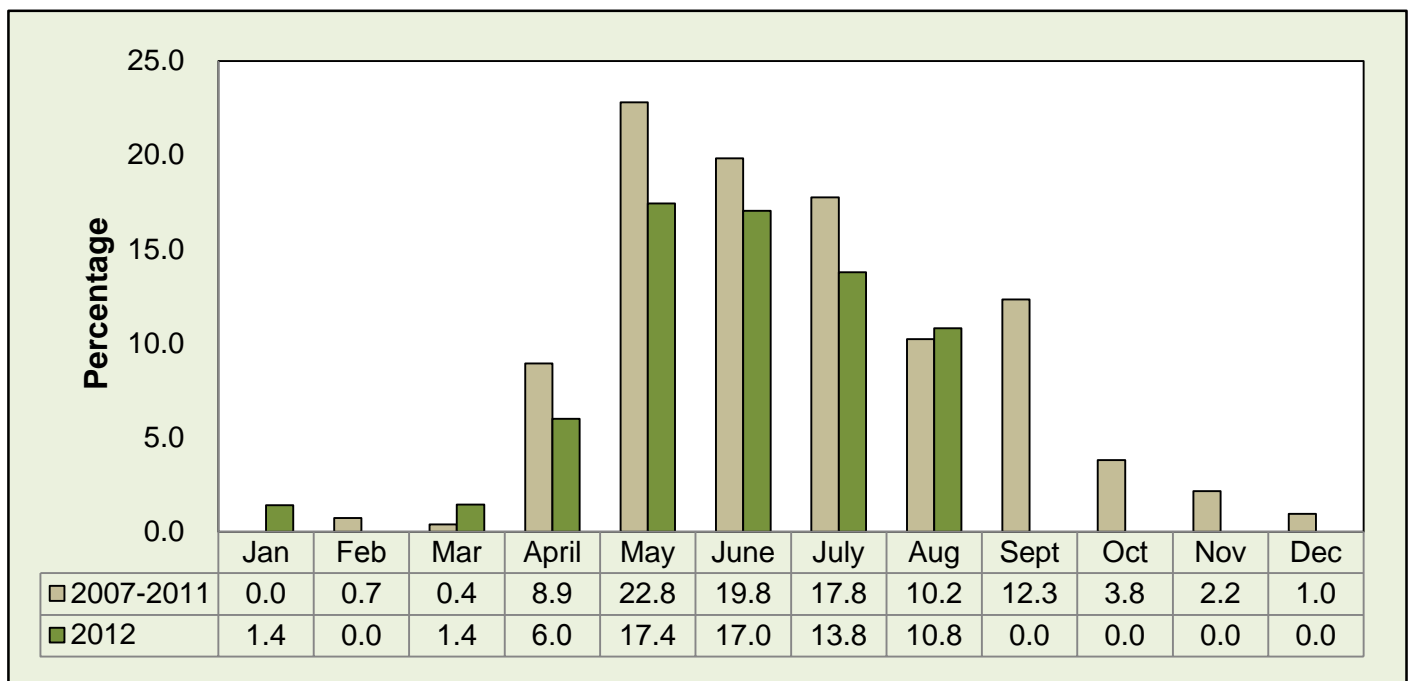
Source: Secretaria de Comércio Exterior (SECEX)

Port of Paranaguá soybean average monthly exports to China



Source: Secretaria de Comércio Exterior (SECEX)

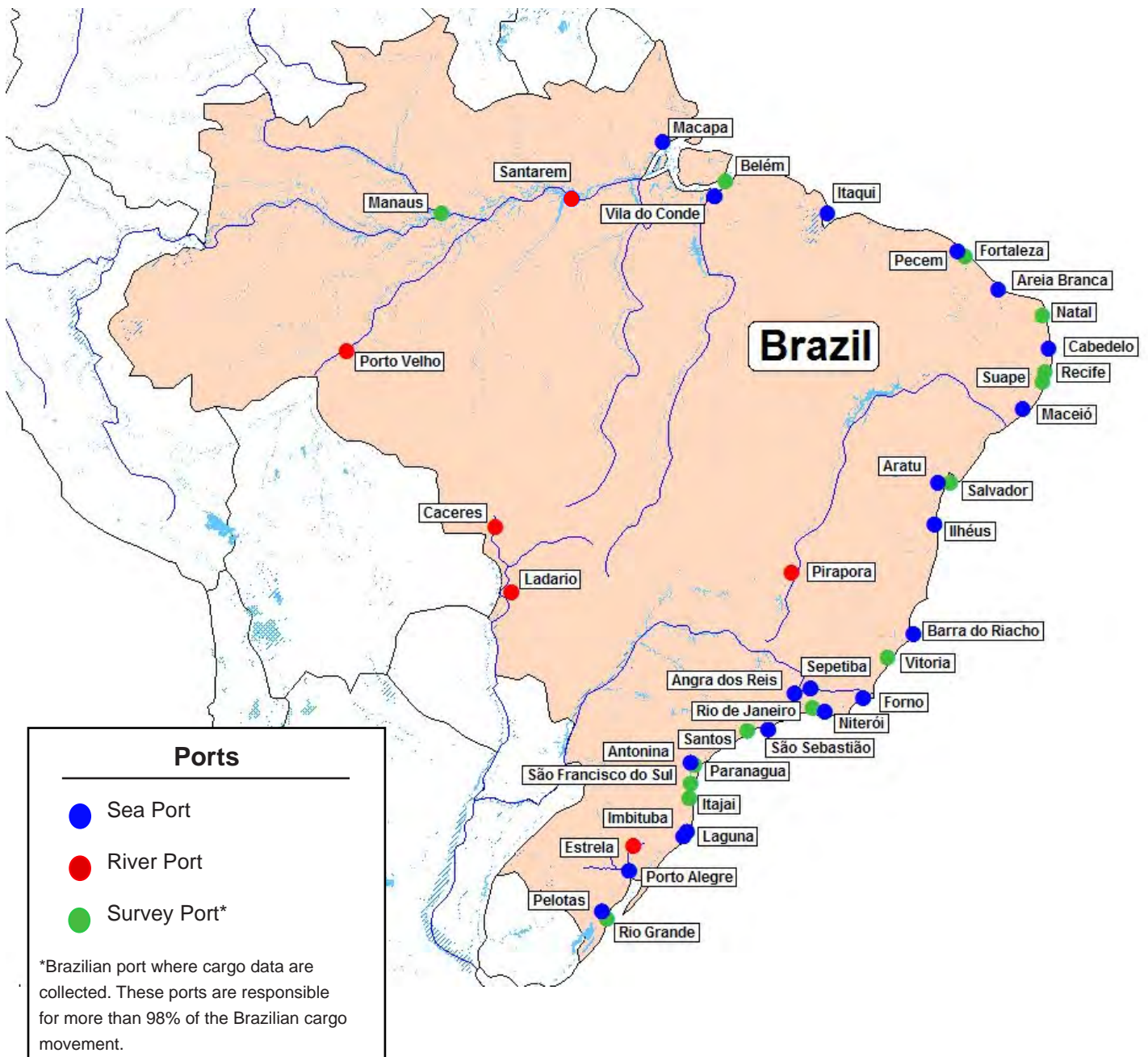
Port of Rio Grande soybean average monthly exports to China



Source: Secretaria de Comércio Exterior (SECEX)

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. The port of Santarém access channel is 5,905 ft wide and 49.2 ft deep. The port of Manaus access channel is 1,640 ft wide and 114.8 ft deep. Both ports have the capacity to handle Panamax vessels that require a draft of up to 39.5 ft.



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 Transportation (ANTAQ)

Brazilian multimodal transportation system



Source: Agência Nacional de Transportes Aquavários

Major Brazilian highways



Source: Confederação Nacional do Transporte

The Brazilian highway system extends 981,665 miles (1,583,331 kilometers) with only 14 percent paved. The United States public roads system consists of 4,064,177 miles (6,532,576 kilometers) with 67 percent paved.

Brazil highway system extension in miles, 2012			
	Paved roads	Unpaved roads	Total
Federal	39,782	7,947	47,428
Federal/State	10,698	3,207	14,176
State	68,722	69,027	137,749
County	16,633	765,649	782,282
Total	135,835	845,830	981,665
% share	14	86	100

Source: Confederação Nacional do Transporte (CNT)

U.S. highway system extension, 2008				
Condition ¹		Paved	Unpaved	Total
Public roads, route miles²		2,739,932	1,324,245	4,064,177
	% share	67	33	
	National Highway System (NHS)			164,096
	Interstates			47,013
	Other NHS			1,170,833
	Other			3,895,246

¹Unpaved Roads Assessment: USDOT-RITA Project, <<http://geodjango.mtri.org/unpaved/>> accessed February 7, 2013

²Any road under the jurisdiction of and maintained by a public authority and open to public travel

Sources: Public Roads: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (Washington, DC: annual issues).

Brazilian highways condition classification



Source: Confederação Nacional do Transporte

Brazilian public highways



Source: Confederação Nacional do Transporte

Brazilian private highway conditions

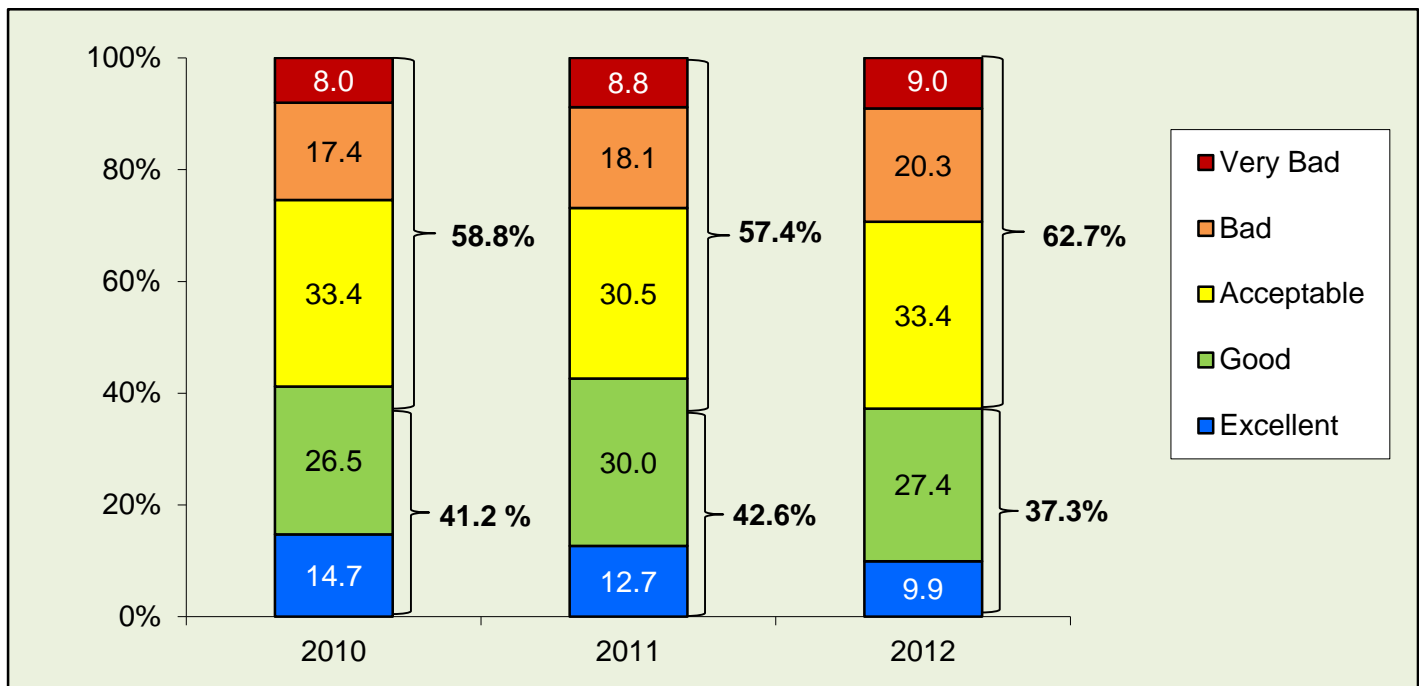


Source: Confederação Nacional do Transporte

Brazilian highways

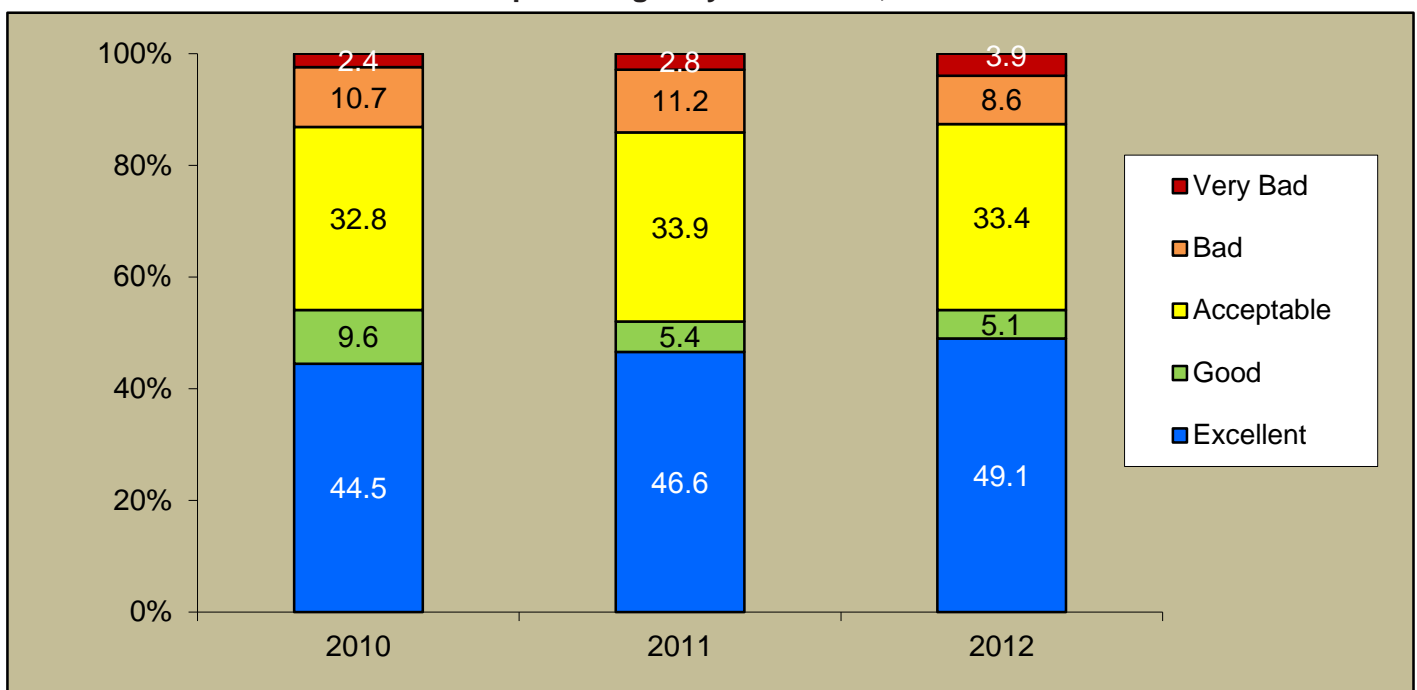
The 2012 Confederação Nacional do Transporte (CNT) survey of the overall highway condition in Brazil shows that 37.3 percent of the roads ranged between good to excellent in 2012 compared to 42.6 percent in 2011. Still, 62.7 percent ranged from acceptable to inadequate. The survey also shows that more than half of the paved roads were in good to excellent and 46 percent ranged from acceptable to very bad condition; nearly 31 percent of traffic road signs had problems; and 88.3 percent of the paved roads are two lane. The survey sample of paved roads increased 5.1 percent from 57,504 miles in 2011 to 59,338 miles in 2012.

Brazilian highway conditions, 2010-2012



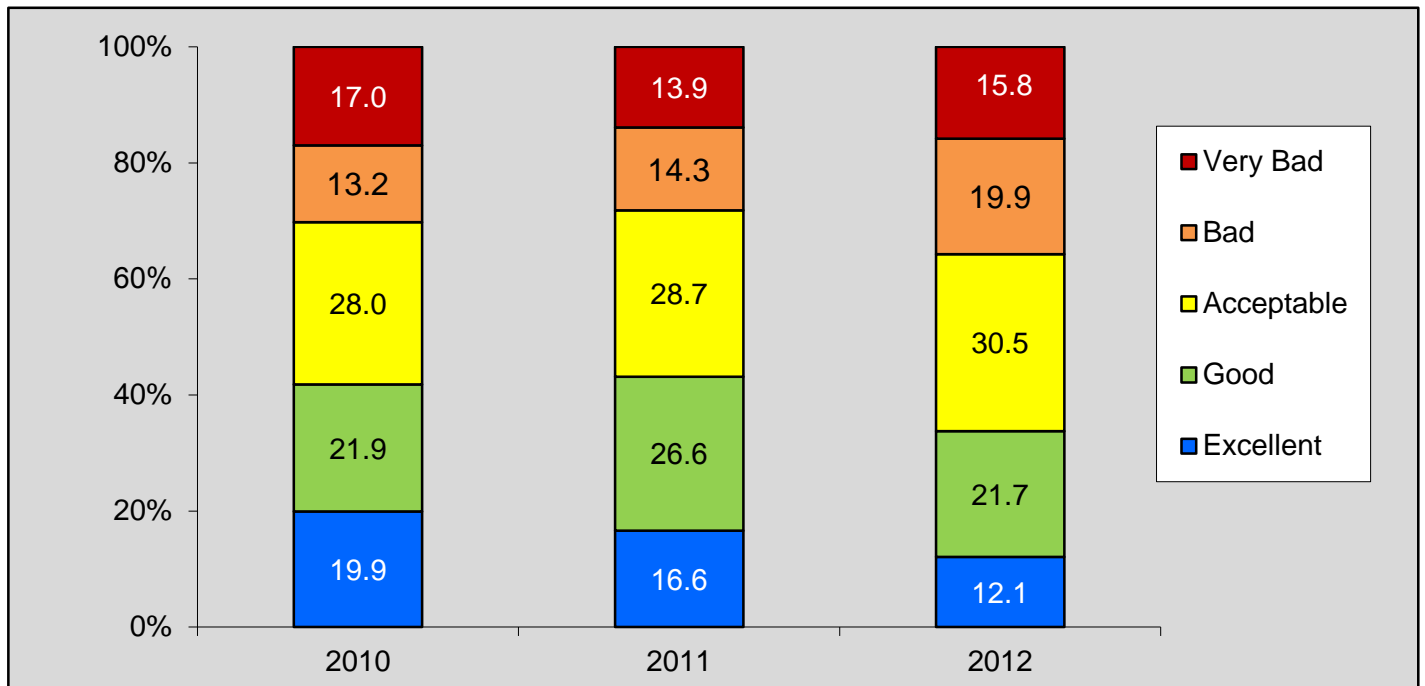
Source: Confederação Nacional do Transporte

Brazilian paved highway conditions, 2010-2012



Source: Confederação Nacional do Transporte

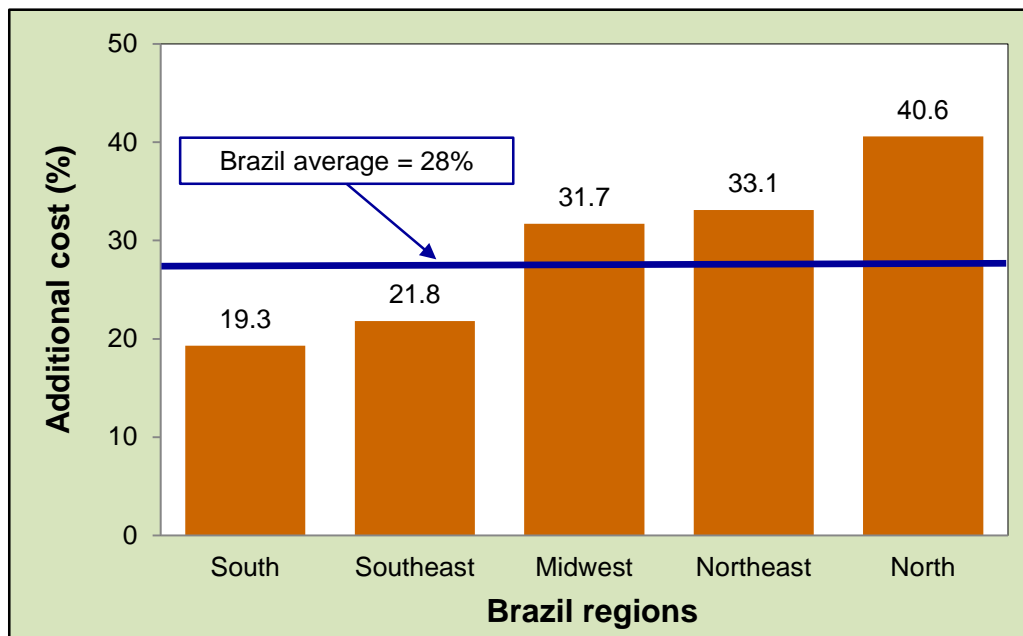
Brazilian road sign conditions, 2010-2012



Source: Confederação Nacional do Transporte

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, then the optimal should be \$72/mt.

Cost increases due to road pavement conditions, 2009



Source: Confederação Nacional do Transporte

Brazilian railway expansion: ongoing projects

The Brazilian railroad system consists of 12 railroads with an extension of 26,596 miles, mostly concentrated in the South, Southeast, and Northeast.

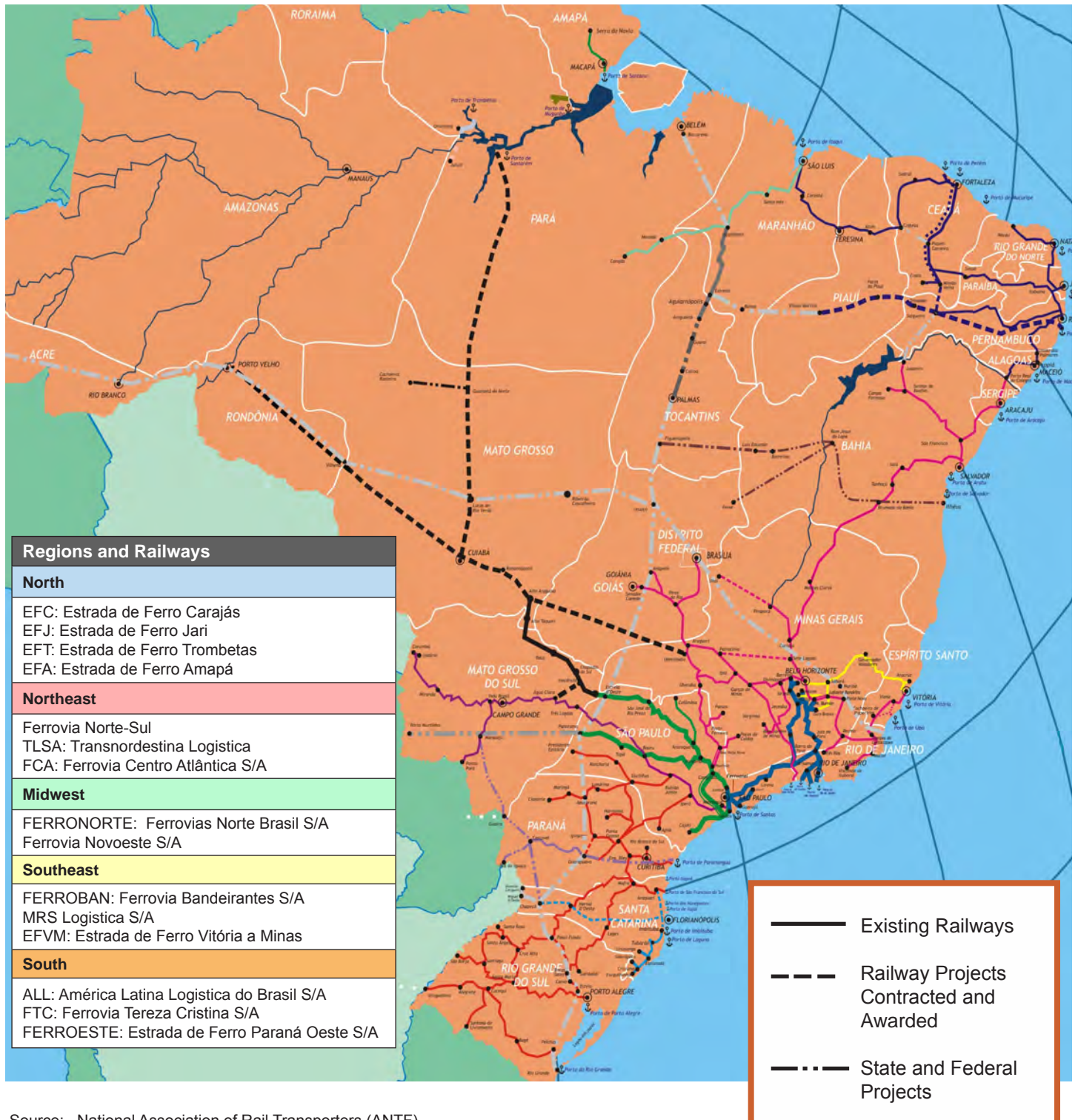


Source: National Agency of Inland Transportation (ANTT)

Transportation Modes

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 three types of gauge: metric (39"), broad (63") and mixed (39"-63"). The metric gauge accounts for 86 percent of the total Brazilian rail miles, and predominates in the Southern region. The broad gauge accounts for 12 percent of total railroads and prevails in the Southeast region, leaving about 2 percent mixed.



Source: National Association of Rail Transporters (ANTF)

**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
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	40,798	47,673	50,671	4,106
2010/11	31,003	4,106	90,605	393	95,104	40,849	44,851	48,403	5,852
2011/12	29,856	5,852	84,192	439	90,483	37,063	46,348	48,810	4,610
2012/13**	30,798	4,610	82,055	544	87,209	36,741	44,497	47,075	3,393

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

**Forecast: April 10, 2013

Source: USDA/Foreign Agricultural Service/Circular Series

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

Country*	2008/09	2009/10	2010/11	2011/12	2012/13**
Brazil	57,800	69,000	75,300	66,500	83,500
United States	80,749	91,417	90,605	84,192	82,055
Argentina	32,000	54,500	49,000	40,100	51,500
China	15,540	14,980	15,100	14,480	12,600
India	9,100	9,700	9,800	11,000	11,500
Paraguay	3,647	6,462	7,128	4,350	8,350
Canada	3,336	3,581	4,445	4,298	4,930
Other	9,464	10,775	12,521	14,853	15,193
Total	211,636	260,415	263,899	239,773	269,628

*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: April 10, 2013

Source: USDA/ Foreign Agricultural Service/Circular Series

Reference Material

Soybean imports: world supply and distribution (1,000 metric tons)					
Country*	2008/09	2009/10	2010/11	2011/12	2012/13**
China	41,098	50,338	52,339	59,231	61,000
EU-27	13,213	12,674	12,474	11,956	11,800
Mexico	3,327	3,523	3,498	3,606	3,550
Japan	3,396	3,401	2,917	2,759	2,750
Taiwan	2,216	2,469	2,454	2,285	2,400
Indonesia	1,393	1,620	1,898	1,922	2,000
Thailand	1,510	1,660	2,139	1,906	1,950
Egypt	1,575	1,638	1,644	1,638	1,650
Vietnam	184	231	924	1,225	1,350
Turkey	1,076	1,648	1,351	1,057	1,200
Other	8,407	7,651	7,091	5,636	5,832
Total	77,395	86,853	88,729	93,221	95,482

*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: April 10, 2013

Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean exports: world supply and distribution (1,000 metric tons)					
Country*	2008/09	2009/10	2010/11	2011/12	2012/13**
Brazil	29,987	28,578	29,951	36,315	36,750
United States	34,817	40,798	40,849	37,063	36,741
Argentina	5,590	13,088	9,205	7,368	10,350
Paraguay	2,283	4,654	5,270	3,450	5,000
Canada	2,017	2,247	2,943	2,932	3,500
Other	2,183	2,668	3,439	4,808	5,519
Total	76,877	92,033	91,657	91,936	97,860

*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: April 10, 2013

Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean crush: world supply and distribution (1,000 metric tons)					
Country*	2008/09	2009/10	2010/11	2011/12	2012/13**
China	41,035	48,830	55,000	60,970	65,650
United States	45,230	47,673	44,851	46,348	44,497
Brazil	31,868	33,700	36,330	36,938	35,550
Argentina	31,243	34,127	37,614	35,886	35,200
EU-27	12,860	12,510	12,265	12,150	11,950
India	7,200	7,400	9,400	9,600	9,900
Mexico	3,465	3,600	3,625	3,750	3,750
Paraguay	1,450	1,558	1,570	950	3,000
Russia	1,497	1,950	2,170	2,400	2,520
Taiwan	1,917	2,150	2,150	2,010	2,070
Bolivia	1,435	1,520	1,800	2,000	2,050
Japan	2,497	2,535	2,149	1,960	1,890
Thailand	1,390	1,520	1,820	1,751	1,725
Egypt	1,545	1,635	1,644	1,620	1,640
Canada	1,282	1,291	1,425	1,411	1,425
Other	7,223	7,265	7,550	6,983	7,533
Total	193,137	209,264	221,363	226,727	230,350

*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: April 10, 2013

Source: USDA/ Foreign Agricultural Service/Circular Series

Soybean ending stocks: world supply and distribution (1,000 metric tons)					
Country*	2008/09	2009/10	2010/11	2011/12	2012/13**
Argentina	16,588	22,277	22,872	18,100	22,400
Brazil	12,642	16,638	22,694	12,969	21,229
China	7,555	13,259	14,558	15,924	12,394
United States	3,761	4,106	5,852	4,610	3,393
EU-27	451	543	595	700	540
Other	2,360	3,940	3,537	2,829	2,674
Total	43,357	60,763	70,108	55,132	62,630

*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: April 10, 2013

Source: USDA/ Foreign Agricultural Service/Circular Series

Reference Material

Quarterly costs of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China										
	2012					2012				
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	To Hamburg, Germany (via U.S. Gulf)									
	Minneapolis, Minnesota --US\$/mt--					Davenport, Iowa --US\$/mt--				
Truck	9.14	11.66	13.51	10.86	11.29	9.14	11.66	13.51	10.86	11.29
Rail**	31.61	-	-	-	10.86	24.16	-	-	-	23.84
Barge ¹	12.53	28.18	32.34	41.08	28.53	12.53	20.23	24.86	33.95	22.89
Ocean ²	19.91	20.76	21.81	18.68	20.29	19.91	20.76	21.81	18.68	20.29
Total transportation ²	73.19	60.60	67.66	70.62	68.02	65.74	52.65	60.18	63.49	60.52
Farm price ³	447.05	502.16	562.42	518.09	507.43	448.27	503.39	565.85	522.99	510.13
Landed cost	520.24	562.76	630.08	588.71	575.45	514.01	556.04	626.03	586.48	570.64
Transport % of landed cost	14.1	10.8	10.7	12.0	11.9	12.8	9.5	9.6	10.8	10.7
	To Shanghai, China (via U.S. Gulf)									
	Minneapolis, Minnesota --US\$/mt--					Davenport, Iowa --US\$/mt--				
Truck	9.14	11.66	13.51	10.86	11.29	9.14	11.66	13.51	10.86	11.29
Rail**	31.61	-	-	-	31.61	24.16	-	-	-	24.16
Barge ¹	12.53	28.18	32.34	41.08	28.53	12.53	20.23	24.86	33.95	22.89
Ocean ²	48.33	49.07	46.82	43.69	46.98	48.33	49.07	46.82	43.69	46.98
Total transportation ²	101.61	88.91	92.67	95.63	94.71	94.16	80.96	85.19	88.50	87.20
Farm price ³	447.05	502.16	562.42	518.09	507.43	448.27	503.39	565.85	522.99	510.13
Landed cost	548.66	591.07	655.09	613.72	602.14	542.43	584.35	651.04	611.49	597.33
Transport % of landed cost	18.5	15.0	14.1	15.6	15.8	17.4	13.9	13.1	14.5	14.7
	To Shanghai, China (via PNW)									
	Fargo, ND --US\$/mt--					Sioux Falls, SD --US\$/mt--				
Truck	9.14	11.66	13.51	10.86	11.29	9.14	11.66	13.51	10.86	11.29
Rail**	54.25	54.89	53.95	57.87	34.74	56.00	56.73	55.66	59.64	34.74
Ocean ²	26.54	25.71	23.88	23.58	24.93	26.54	25.71	23.88	23.58	24.93
Total transportation ²	89.93	92.26	91.34	92.31	91.46	91.68	94.10	93.05	94.08	93.23
Farm price ³	434.80	493.59	542.58	515.64	496.65	445.82	496.04	552.38	516.86	502.78
Landed cost	524.73	585.85	633.92	607.95	588.11	537.50	590.14	645.43	610.94	596.00
Transport % of landed cost	17.1	15.7	14.41	15.18	15.6	17.1	15.9	14.42	15.40	15.7

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

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

²The Baltic Exchange; excludes handling charges

³Source: USDA/NASS

Average quarterly exchange rate															
	1st qtr	2nd qtr	3rd qtr	4th qtr	2006	1st qtr	2nd qtr	3rd qtr	4th qtr	2007	1st qtr	2nd qtr	3rd qtr	4th qtr	2008
Real per US\$	2.1959	2.1852	2.1711	2.1520	2.1761	2.1082	1.9818	1.9177	1.7857	1.9484	1.7365	1.6561	1.6678	2.2779	1.8346
	1st qtr	2nd qtr	3rd qtr	4th qtr	2009	1st qtr	2nd qtr	3rd qtr	4th qtr	2010	1st qtr	2nd qtr	3rd qtr	4th qtr	2011
Real per US\$	2.3113	2.0728	1.8680	1.7386	1.9977	1.8003	1.7927	1.7487	1.6963	1.7595	1.6673	1.5962	1.6357	1.8012	1.6751
	1st qtr	2nd qtr	3rd qtr	4th qtr	2012										
Real per US\$	1.7701	1.9641	2.0288	2.0576	1.9551										

Source: Banco Central do Brasil

Selected quarterly Brazilian farm prices (US\$/metric ton)*				
Year	Rio Grande do Sul	Mato Grosso	Goiás	Paraná
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				
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
2011				
1st qtr	431.68	406.96	441.07	459.96
2nd qtr	425.42	386.58	413.15	435.53
3rd qtr	428.53	416.62	417.65	440.47
4th qtr	377.84	358.24	379.70	390.69
Average	415.87	392.10	412.89	431.66
2012				
1st qtr	405.07	377.70	401.58	428.80
2nd qtr	448.47	448.29	428.40	475.69
3rd qtr	557.90	570.66	566.91	593.20
4th qtr	521.43	536.60	522.33	557.54
Average	483.22	483.31	479.80	513.81

Source: Companhia Nacional de Abastecimento (CONAB)

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