



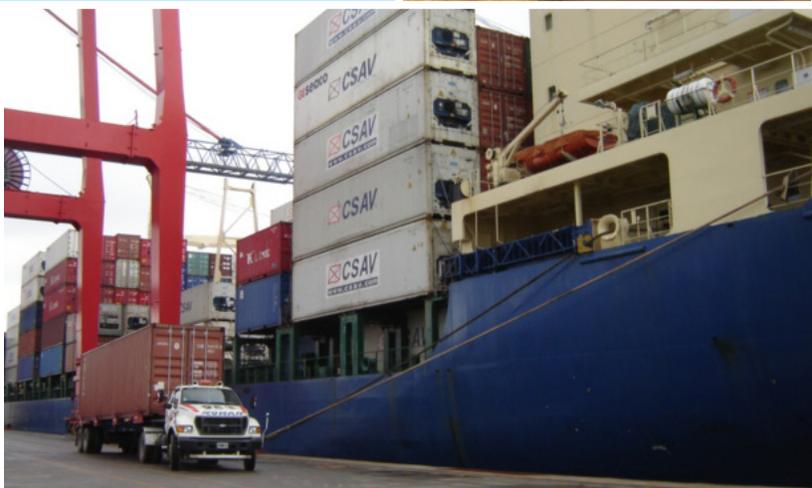
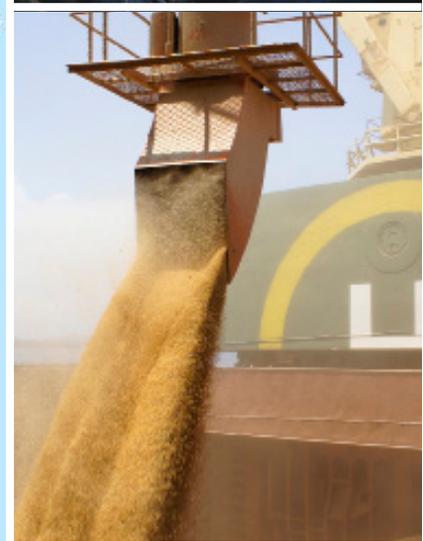
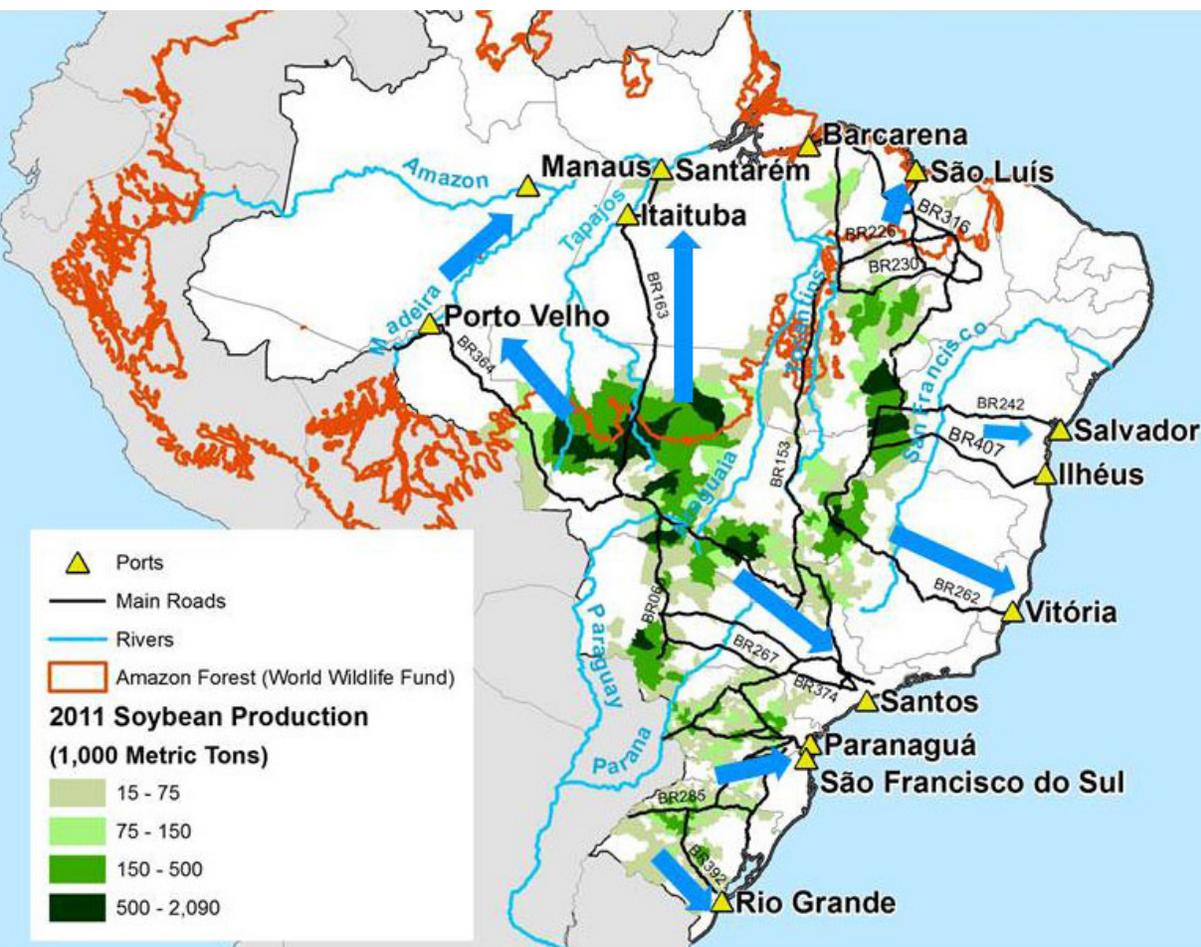
United States
Department of
Agriculture

Agricultural
Marketing
Service

July 2015



Soybean Transportation Guide: Brazil 2014



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

July 2015

Author:

Delmy L. Salin, USDA, Agricultural Marketing Service

Graphic Designer:

Jessica E. Ladd, USDA, Agricultural Marketing Service

Preferred Citation

Salin, Delmy. Soybean Transportation Guide: Brazil. July 2015. U.S. Dept. of Agriculture, Agricultural Marketing Service.
Web. <<http://dx.doi.org/10.9752/TS048.07-2015>>

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the bases of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or all or part of an individual's income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases will apply to all programs and/or employment activities.)

If you wish to file an employment complaint, you must contact your agency's EEO Counselor (PDF) within 45 days of the date of the alleged discriminatory act, event, or in the case of a personnel action. Additional information can be found online at http://www.ascr.usda.gov/complaint_filing_file.html. If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form (PDF), found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

Individuals who are deaf, hard of hearing or have speech disabilities and you wish to file either an EEO or program complaint please contact USDA through the Federal Relay Service at (800) 877-8339 or (800) 845-6136 (in Spanish). Persons with disabilities who wish to file a program complaint, please see information above on how to contact us by mail directly or by email. If you require alternative means of communication for program information (e.g., Braille, large print, audiotope, etc.) please contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

For any other information not pertaining to civil rights, please refer to the listing of the USDA Agencies and Offices for specific agency information.

Executive Summary.....	ii
General Information.....	1
2014 Summary.....	2
Transportation Infrastructural Developments.....	15
Transportation Indicators.....	20
Soybean Production.....	28
Exports.....	30
Exports to China.....	35
Transportation Modes.....	43
Reference Material.....	58

Soybean Transportation Guide: Brazil

Executive Summary

The *Soybean Transportation Guide* is a visual snapshot of Brazilian soybean transportation in 2014. It provides data on the cost of shipping soybeans via highways and ocean shipping to Shanghai, China, and Hamburg, Germany. It provides information about soybean production, exports, railways, ports, and infrastructural developments.

Brazil is 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. Small differences in transportation costs can make Brazil soybean exports more profitable than U.S. soybeans, diverting soybean trade from the United States to Brazil or Argentina, or vice versa.

In 2014, Brazil lost competitiveness over the United States in the world soybean market, but USDA forecasts it will regain its leadership position in 2015. Brazilian market shares declined from 40.9 in 2013 to 38.9 percent in 2014. The U.S. market shares increased to 42.7 percent in 2014 from 37.6 percent in 2013. The growth in the world soybean trade volume helped the United States regain its world leadership position in 2014. World soybean trade volume increased 12 percent in 2014 from 104.7 million metric tons (mmt) in 2013 to 117.4 mmt. The United States' 5-percent gain resulted mostly from a sharp increase in U.S. soybeans export supply availability. Brazil, Argentina, Paraguay, and Uruguay world soybean market shares declined 1.9, 1.1, 0.7, and 0.7, respectively. Brazilian exports increased, reaching a record of 45.7 mmt. However, this increase was not large enough to offset the 27 percent increase in U.S. soybean exports, which were a record of 50.2 mmt.

Brazil lost its leadership position in the global soybean market but increased its market share in China from 37.7 to 43 percent, surpassing the United States. In 2014, it exported 32.7 mmt of soybeans, valued at \$16.6 billion. The United States exports to China increased to 31.3 mmt, valued at \$14.8 billion. Despite the nearly 28-percent increase in U.S. soybeans exports, the United States market share in China decreased to 45 percent from 49.5 in 2013. China, the world's largest soybean importer, is responsible for all the growth in global soybean trade from 2013 to 2014.

Impact of Brazil Transportation Infrastructure Improvement

The leadership in the world's soybean market depends on competing countries' ability to improve their infrastructure capacity and reduce their transportation cost. Since 2007, the Brazilian government began a comprehensive infrastructural improvement strategy, with major institutional and regulatory changes to facilitate agricultural exports. But the impact of the Brazilian government strategic plan on the world soybean market shares is not clear because the scale and timing of improvements in Brazil's infrastructure remains unclear. We also do not know how much Brazil's freight rates might be reduced in the future as a result of improvements to its transportation infrastructure. We only know that it is improving and Brazil has been gaining in soybean market share as a result.

Consequently, we can only estimate the impact of Brazil's transportation infrastructure improvement in the future. We can assume that if Brazil's infrastructure improves and it is able to lower its transportation cost equivalent to a reduction in ocean freight rates, and become similar to the rates from the U.S. Pacific Northwest (PNW). Brazil's exports will probably increase relative to those of the United States. In this case, Brazil's global export market shares would have increased 27 to 47 percent points, primarily as a result of structural improvements. The United States world market share would have declined from between 2 to almost 18 percentage points as a result of structural changes in Brazil, assuming no improvements in the U.S. infrastructure. For example, assuming world 2014/15 soybean trade is 117 mmt (WASDE March 2015), a 1-percent decline in the U.S. soybean market share is equivalent to 456 million dollars lost in export sales (1.17 mmt times \$390/mt).

Soybean Transportation Cost and Export Demand

Strategic transportation infrastructure improvements, lower ocean rates, and a weaker currency that supported domestic farm prices facilitated the 2014 Brazilian record-high soybean exports. Trade from the Southern ports of Santos, Rio Grande, and Paranaguá was diverted to the North and Northeastern ports to expedite soybean exports. These three ports kept their leadership position but lost 5 percent of their traditional share of Brazilian exports, accounting for 62 percent of the total, compared with 67 percent in 2013. Soybean exports increased significantly in the ports of São Francisco do Sul (SC), Vitória (ES), Salvador (BA), Manaus (AM), Barcarena (PA), Imbituba (SC), and Ilhéus (BA). The Northern ports of Manaus, Barcarena, and Santarém represented 7.5 percent of total 2014 Brazilian soybean exports, compared with 5.3 percent a year earlier.

In 2014, the Brazil exported to the United States three times more soybeans than in 2013, totaling 1.06 mmt, valued at US\$ 538.1 million. Santos was the largest Brazilian soybean export port to the United States followed by São Francisco do Sul, Vitória, Manaus, Rio Grande, Ilhéus, Barcarena, Santarém, and Paranaguá. The southern port of Santos, São Francisco do Sul, Rio Grande, and Paranaguá accounted for 53 percent of Brazilian soybean exports to the United States. The Amazon River ports of Manaus, Barcarena, and Santarém and the northeastern ports of Vitória and Ilhéus represented 23 and 23.7 percent of exports, respectively.

The cost of shipping a metric ton (mt) of soybeans 100 miles by truck decreased slightly, from \$10.08 in 2013 to \$9.87 in 2014. In 2014, Brazilian soybean transportation costs to Shanghai, China, from the routes of North Mato Grosso (MG) and Northwest Rio Grande do Sul–Rio Grande decreased 1 to 2 percent as a percentage of total landed costs because of lower transportation costs, primarily due to a reduction in ocean freight costs, compared with 2013. However, costs increased up to 5 percent from South Goiás to Santos because of higher truck rates. In Sorriso, North MT (the largest Brazilian soybean-producing state), transportation costs represented nearly 28 percent of the total landed costs of shipping soybeans to Shanghai through Santos compared with 34 percent in 2008 and 45 percent in 2006.

The volume of Brazilian soybean exports increased 7 percent from 2013, from 42.9 million to 45.7 million metric tons (mt). The value of exports increased 2 percent to US\$23.2 billion from US\$22.8 billion in 2013. Average soybean export prices decreased to \$509/mt from \$533/mt in 2013. The Brazilian real (R\$) weakened by 8.3 percent against the U.S. dollar in 2014. This partially offset the nearly 6-percent drop in soybean farm prices—down to \$416.56/mt from \$440.95/mt in 2013—because soybeans are priced in U.S. dollars but paid in reais. Average farm prices in 2014 in the Brazilian real (R\$) increased 3 percent, to R\$976.81 from R\$964.53/mt (Brazil Central Bank and CONAB).

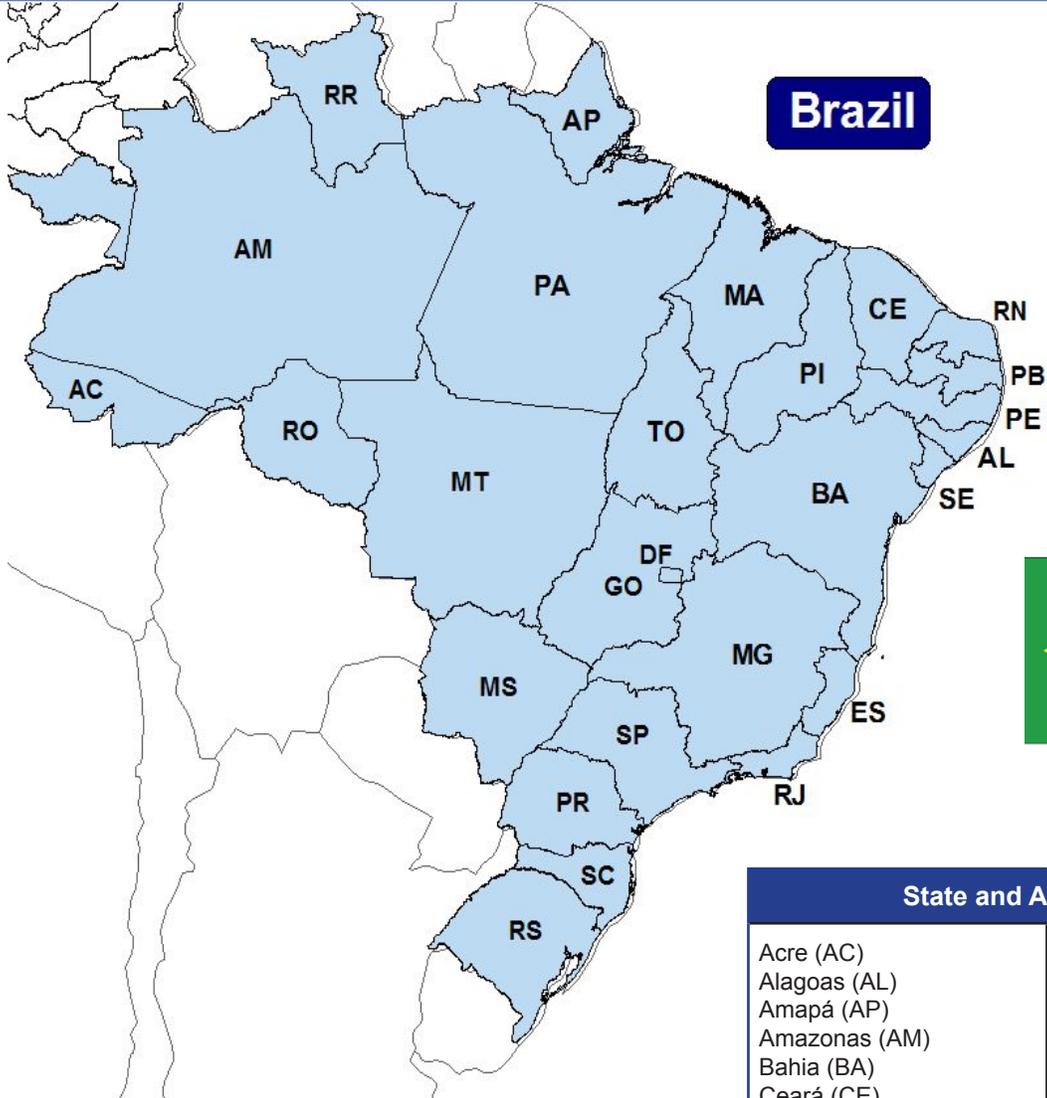
China is Brazil's major soybean buyer, accounting for 71 percent of total export, followed by Spain, Netherlands, Thailand, and the United States. China bought 32.6 million mt of Brazilian soybeans in 2014, valued at US\$16.6 billion. The United States jumped from the 11th largest Brazilian soybean export destination in 2013 to the 5th in 2014, accounting for 2 percent of Brazilian total exports, equivalent to 1.06 million mt, valued at \$538.1 million. Mato Grosso, largest Brazilian exporting state, accounted for 64 and 39 percent of total Brazilian soybean exports to China and the United States, respectively. About two-thirds of Brazil exports to China were shipped from the ports of Santos of Santos, Rio Grande, Paranaguá, São Francisco do Sul, and Vitória.

Overall, Brazil's transportation infrastructure is improving. However, transportation costs in their Midwest region, especially in MT, are still higher than Iowa in the United States and also higher than in the southern Brazilian State of Rio Grande do Sul. Rio Grande do Sul (RS) exporters have lower transportation costs than the United States' routes to China through the Pacific Northwest (PNW) and from Iowa through the U.S. Gulf to Shanghai.



Acknowledgments

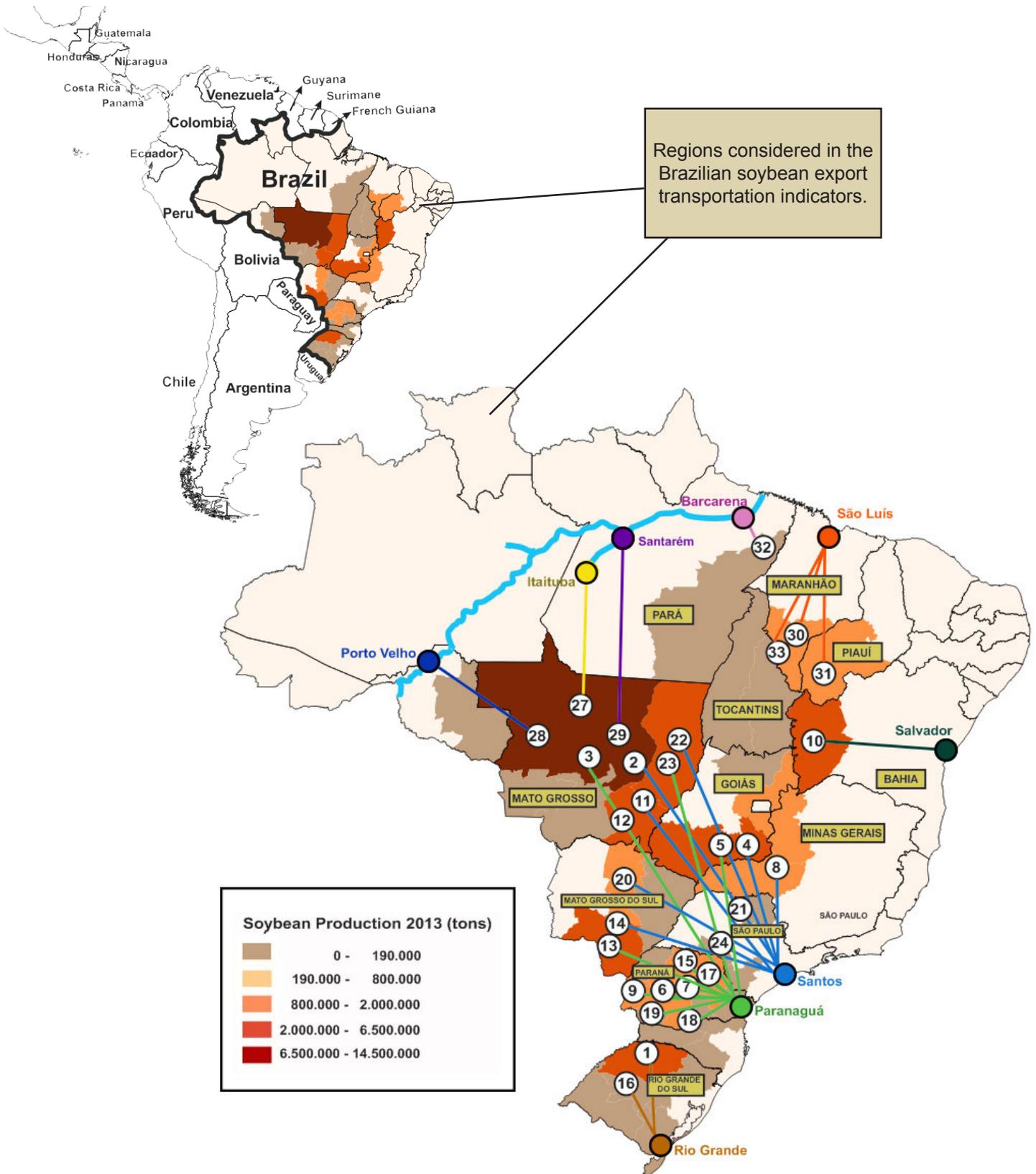
The author would like to acknowledge Francisco P. Magalhães Gomes, (National Agency of Inland Transportation, ANTT), Rodrigo Vilaça and Juliano Dian (National Association of Railroads, ANTF), the Escola Superior de Agricultura “Luiz de Queiroz”/ Grupo de Pesquisa e Extensão em Logística Agroindustrial, ESALQ-LOG, the Assessoria de Comunicação dos Portos de Paranaguá e Antonina, ASSCOM-APPA, Robert Tetrault and Lisa Colson (USDA, Foreign Agricultural Service) for providing regional information, pictures 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), Nicolas Rubio (USDA, Foreign Agricultural Service (FAS), Agricultural Attaché, Brasilia), Pierre Bahizi (USDA, Agricultural Marketing Service), and Bill George, (USDA, FAS, Office of Global Analysis), are greatly appreciated. The author would also like to thank Becky Unkenholz, editor, and Jessica Ladd, graphic designer.



State and Abbreviation	
Acre (AC)	Pará (PA)
Alagoas (AL)	Paraíba (PB)
Amapá (AP)	Paraná (PR)
Amazonas (AM)	Pernambuco (PE)
Bahia (BA)	Piauí (PI)
Ceará (CE)	Rio de Janeiro (RJ)
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)

Population:	202,656,788 (July 2014 est.) 196 526,000 (2010 Census, Instituto Brasileiro de Geografia e Estatística (IBGE))
Gross Domestic Product per Capita, 2014:	US\$11,157.76 (Banco Central do Brasil)
Inflation, 2014:	6.41 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 83 percent of Brazilian soybean production, 2013

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

In 2014, Brazilian soybean transportation costs to Shanghai, China, as a percentage of total landed costs from the routes of North Mato Grosso (MT) and Northwest Rio Grande do Sul–Rio Grande decreased 1-2 percent due to lower transportation costs, primarily due to a reduction in ocean freight costs, compared with 2013. However, it increased up to 5 percent from South Goiás to Santos because of higher truck rates. In Sorriso, North MT (the largest Brazilian soybean-producing state) transportation costs represented nearly 28 percent of the total landed costs of shipping soybeans to Shanghai through Santos compared with 34 percent in 2008 and 45 percent in 2006.

Cost of transporting soybeans from Brazil to Shanghai, China																	
	2008	2009	2010	2011	2012	2013	2014	Percent change 13-14		2008	2009	2010	2011	2012	2013	2014	Percent change 13-14
	North MT ¹ - Santos ² —US\$/mt—								Northwest RS ¹ - Rio Grande ² —US\$/mt—								
Truck	115.74	97.00	116.78	123.31	111.78	116.40	103.90	-10.7	22.29	24.50	28.18	38.94	25.83	23.26	24.56	24.56	5.6
Ocean	70.38	58.78	55.84	50.50	49.70	40.96	36.85	-10.0	72.08	59.42	58.21	51.10	49.69	41.52	36.65	36.65	-11.7
Total transportation	186.12	155.78	172.62	173.81	161.48	157.36	140.75	-10.6	94.37	83.92	86.39	90.03	75.51	64.79	61.20	61.20	-5.5
Farm price ³	358.99	324.34	318.15	392.10	483.31	415.28	388.33	-6.5	394.66	359.51	344.90	415.87	483.22	459.33	442.52	442.52	-3.7
Landed cost	545.11	480.12	490.77	565.91	644.80	572.64	529.08	-7.6	489.03	443.43	431.29	505.90	558.73	524.11	503.72	503.72	-3.9
Transport % of landed cost	34.1	32.6	38.6	30.6	28.4	28.4	27.8	-2.2	19.4	19.0	20.1	17.8	13.7	12.3	12.2	12.2	-1.4
North Center PR ¹ - Paranáguá ² —US\$/mt—														South GO ¹ - Santos ² —US\$/mt—			
Truck	33.60	27.37	34.51	39.54	34.76	32.26	30.98	-4.0	55.33	50.83	64.71	63.92	55.02	58.90	62.57	62.57	6.2
Ocean	71.66	59.00	58.92	57.32	55.20	43.88	39.21	-10.6	70.38	58.78	55.84	50.50	49.70	40.96	36.85	36.85	-10.0
Total transportation	105.26	86.37	93.43	96.86	89.96	76.15	70.19	-7.8	125.71	109.62	120.56	114.42	104.72	99.86	99.42	99.42	-0.4
Farm price ³	399.31	372.46	350.44	431.66	513.81	470.66	433.91	-7.8	373.13	338.31	324.27	412.89	479.80	428.06	401.49	401.49	-6.2
Landed cost	504.56	458.83	443.87	528.52	603.76	546.80	504.10	-7.8	498.84	447.93	444.82	527.31	584.52	527.93	500.91	500.91	-5.1
Transport % of landed cost	21.0	18.9	21.2	18.4	15.1	13.9	13.9	0.0	25.4	24.6	27.4	21.7	18.1	18.9	19.8	19.8	4.9

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

2014 Summary

In 2014, Brazilian soybean transportation costs from South Goiás (GO), Paraná (PR), and Rio Grande do Sul (RS), as a percentage of total landed costs increased 1-7 percent, but decreased nearly 3 percent from Mato Grosso (MT) to Hamburg, Germany, from a year earlier.

Cost of transporting soybeans from Brazil to Hamburg, Germany																
	2008	2009	2010	2011	2012	2013	2014	Percent change 13-14	2008	2009	2010	2011	2012	2013	2014	Percent change 13-14
	North MT ¹ - Santos ² —US\$/mt—								Northwest RS ¹ - Rio Grande ² —US\$/mt—							
Truck	115.74	97.00	116.78	123.31	111.78	116.40	103.90	-10.7	22.29	24.50	28.18	37.54	25.83	23.26	24.56	5.6
Ocean	52.36	32.48	33.63	34.65	31.75	29.50	27.75	-5.9	54.30	33.79	36.03	36.12	33.15	29.50	27.00	-8.5
Total transportation	168.10	129.48	150.40	157.96	143.53	145.90	131.65	-9.8	76.60	58.30	64.21	73.65	58.97	52.76	51.56	-2.3
Farm price ³	358.99	324.34	318.15	392.10	483.31	415.28	388.33	-6.5	394.66	359.51	344.90	415.87	483.22	459.33	442.52	-3.7
Landed cost	527.09	453.82	468.55	550.06	626.84	561.18	519.98	-7.3	471.26	417.80	409.11	489.52	542.19	512.09	494.08	-3.5
Transport % of landed cost	31.6	28.7	32.6	28.7	23.3	26.0	25.3	-2.8	16.1	14.0	15.8	15.0	11.0	10.3	10.5	1.5
North Center PR ¹ - Paranaguá ² —US\$/mt—																
Truck	33.60	27.37	34.51	39.54	34.76	32.26	30.98	-4.0	80.61	50.83	64.71	63.92	55.02	58.90	62.57	6.2
Ocean	53.81	33.34	35.08	34.95	33.80	29.50	28.75	-2.5	52.36	32.48	33.63	34.65	31.75	29.50	27.75	-5.9
Total transportation	87.41	60.71	69.59	74.48	68.56	61.76	59.73	-3.3	132.97	83.32	98.34	98.57	86.77	88.40	90.32	2.2
Farm price ³	399.30	372.46	350.44	431.66	513.81	470.66	433.91	-7.8	358.99	338.31	324.27	412.89	479.80	428.06	401.49	-6.2
Landed cost	486.71	433.17	420.03	506.15	582.36	532.42	493.64	-7.3	491.97	421.63	422.61	511.46	566.57	516.47	491.81	-4.8
Transport % of landed cost	17.9	14.1	16.8	14.7	11.9	11.6	12.1	4.2	26.9	19.8	23.6	19.3	15.6	17.1	18.3	7.1

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 2014, U.S. soybean transportation costs from Minnesota and Iowa through the U.S. Gulf to Hamburg, Germany, as a percentage of total landed costs increased 27-29 percent. The increased costs are due to higher truck, rail, and barge rates, which offset the decline in farm prices and ocean rates. The U.S. soybean transportation costs from Minnesota and Iowa through the U.S. Gulf to Shanghai, as a percentage of total landed costs increased 24-25 percent compared with 2013.

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

	2008	2009	2010	2011	2012	2013	2014	% Change 2013-14	2008	2009	2010	2011	2012	2013	2014	% Change 2013-14
To Hamburg, Germany																
	Minneapolis, Minnesota --US\$/mt--								Davenport, Iowa --US\$/mt--							
Truck	11.50	10.01	9.45	11.38	11.29	11.56	13.04	12.8	11.50	10.01	9.45	11.38	11.29	11.56	13.04	12.8
Rail ¹	26.00	-	10.86	10.86	10.86	36.48	42.08	15.4	-	-	10.86	23.84	23.84	27.93	30.77	10.2
Barge ²	34.75	25.56	31.25	31.93	28.53	25.79	37.45	45.2	30.41	19.77	25.45	25.99	22.89	21.38	32.80	53.4
Ocean ³	52.66	21.10	28.94	23.42	20.29	22.87	20.24	-11.5	52.66	21.10	26.22	23.42	20.29	22.87	20.24	-11.5
Total transportation	105.41	56.67	72.36	75.39	68.02	69.34	81.25	17.2	94.57	50.88	63.83	67.40	60.52	62.79	73.77	17.5
Farm price ⁴	411.71	363.76	353.90	446.13	507.43	511.04	455.47	-10.9	416.89	370.01	362.78	458.68	510.13	517.78	458.07	-11.5
Landed cost	517.12	420.46	426.26	521.52	575.45	580.38	536.72	-7.5	511.46	420.89	426.62	526.08	570.64	580.57	531.84	-8.4
Transport % of landed cost	20.1	13.5	17.0	14.5	11.9	12.0	15.3	27.5	18.3	12.1	15.0	12.8	10.7	10.9	14.1	29.3
To Shanghai, China																
	Minneapolis, Minnesota --US\$/mt--								Davenport, Iowa --US\$/mt--							
Truck	11.50	10.01	9.45	11.38	11.29	11.56	13.04	12.8	11.50	10.01	9.45	11.38	11.29	11.56	13.04	12.8
Rail ¹	26.00	-	10.86	34.74	31.61	36.48	42.08	15.4	-	-	10.86	10.86	24.16	27.93	30.77	10.2
Barge ²	34.75	25.56	41.41	31.93	28.53	25.79	37.45	45.2	30.41	19.77	35.61	25.99	22.89	21.38	32.80	53.4
Ocean ³	91.18	51.21	54.56	53.08	46.98	46.76	45.72	-2.2	91.18	51.21	51.84	53.08	46.98	46.76	45.72	-2.2
Total transportation	143.93	86.78	108.13	105.05	94.71	93.23	106.72	14.5	133.09	80.99	99.61	97.06	87.20	86.69	99.25	14.5
Farm price ⁴	411.71	363.80	355.37	446.13	507.43	511.04	455.47	-10.9	416.89	370.01	364.16	458.68	510.13	517.78	458.07	-11.5
Landed cost	555.64	450.57	463.51	551.18	602.14	604.28	562.19	-7.0	549.98	450.99	463.77	555.74	597.33	604.46	557.32	-7.8
Transport % of landed cost	25.4	19.2	23.3	19.1	15.8	15.5	19.1	23.6	23.7	17.9	21.5	17.5	14.7	14.4	18.0	25.0

¹Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary rail markets, which could exceed the rail tariff rate plus fuel surcharge shown in the table.

²The Mississippi River closes from Minneapolis to just north of St. Louis during 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.

³Source: The Baltic Exchange and O'Neil Commodity Consulting; excludes handling charges.

⁴Source: USDA/NASS/Quick Stats database

2014 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 increased 15-17 percent from a year earlier.

Average costs of transporting U.S. soybeans to Shanghai, China										
	2011	2012	2013	2014	% change 2013-14	2011	2012	2013	2014	% change 2013-14
	To Shanghai, China via PNW									
	Fargo, ND --US\$/mt--					Sioux Falls, SD --US\$/mt--				
Truck	11.38	11.29	11.56	13.04	12.8	11.38	11.29	11.56	13.04	12.8
Rail ¹	50.89	55.24	57.92	59.19	2.2	53.41	57.01	59.38	60.74	2.3
Ocean ²	29.76	24.93	24.93	24.21	-2.9	29.76	24.93	24.93	24.21	-2.9
Total transportation	92.03	91.46	94.41	96.43	2.1	96.68	93.23	95.87	97.99	2.2
Farm price ³	442.76	496.65	497.79	421.91	-15.2	386.64	502.78	504.56	437.89	-13.2
Landed cost	534.79	588.11	592.20	518.34	-12.5	483.32	596.00	600.43	535.88	-10.8
Transport % of landed cost	17.2	15.6	16.0	18.8	17.3	20.2	15.7	16.0	18.5	15.4

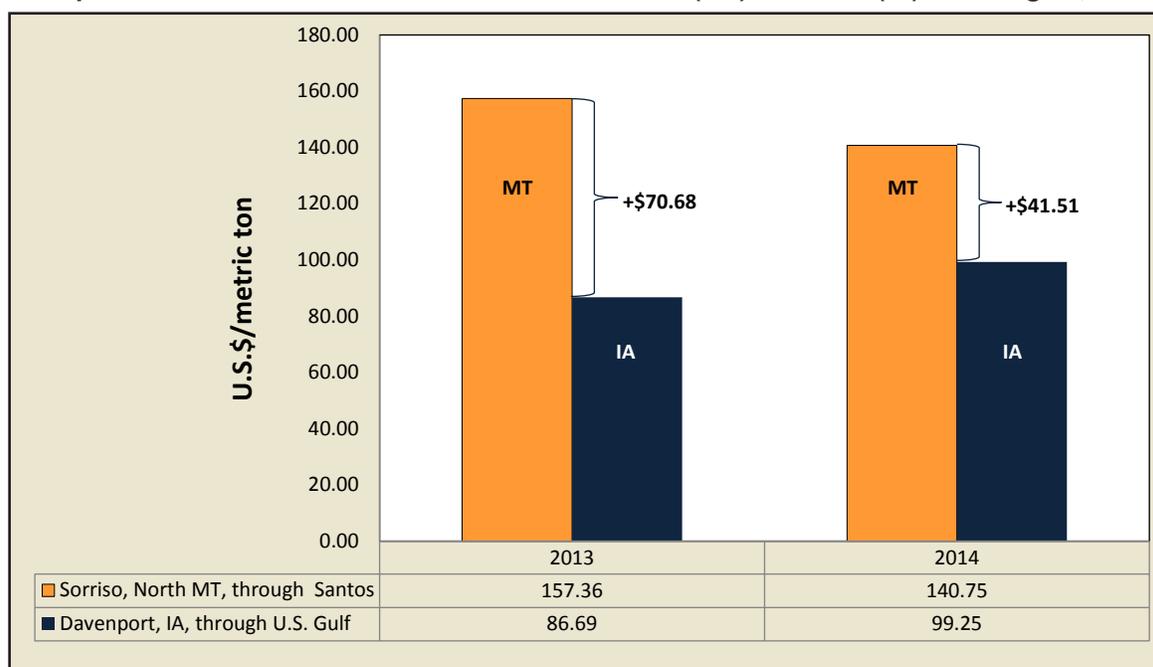
¹Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary rail markets, which could exceed the rail tariff rate plus fuel surcharge shown in the table.

²Source: O'Neil Commodity Consulting

³Source: USDA/NASS/Quick Stats database

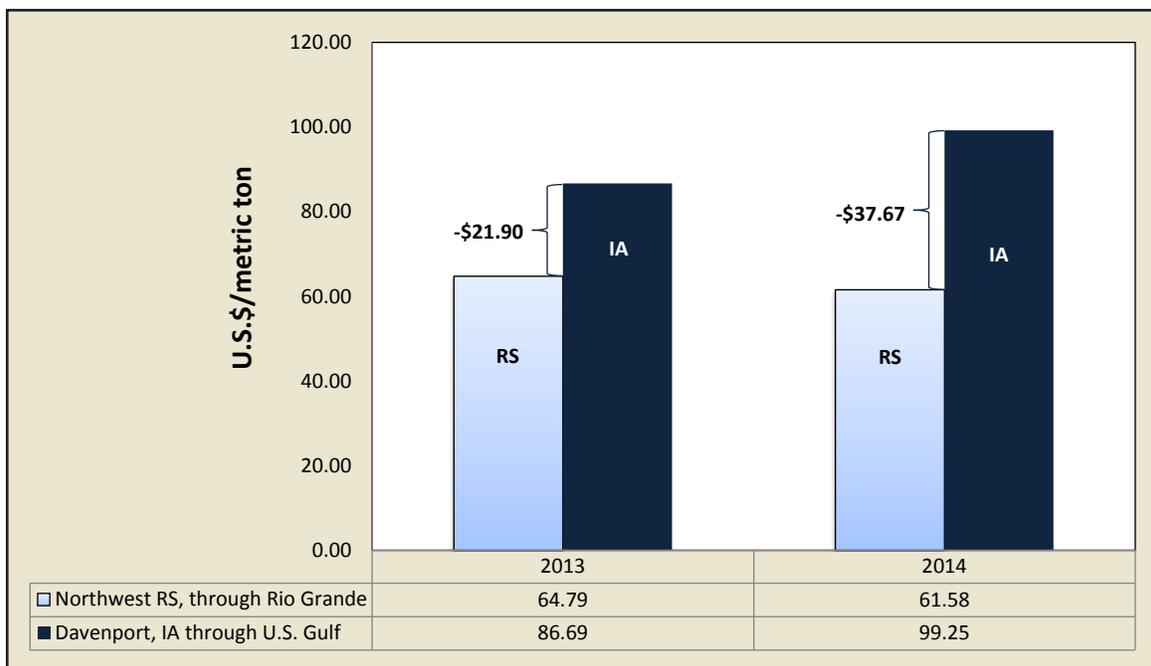
In 2014, the cost per metric ton to ship soybeans from Sorriso, North Mato Grosso (MT) to Shanghai, China was \$41.51 more than from Davenport, IA. Sorriso is located 1,190 miles from the port of Santos. Davenport is about 900, 908, and 1,343 miles from the Port of New Orleans by truck, rail, and barge, respectively.

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



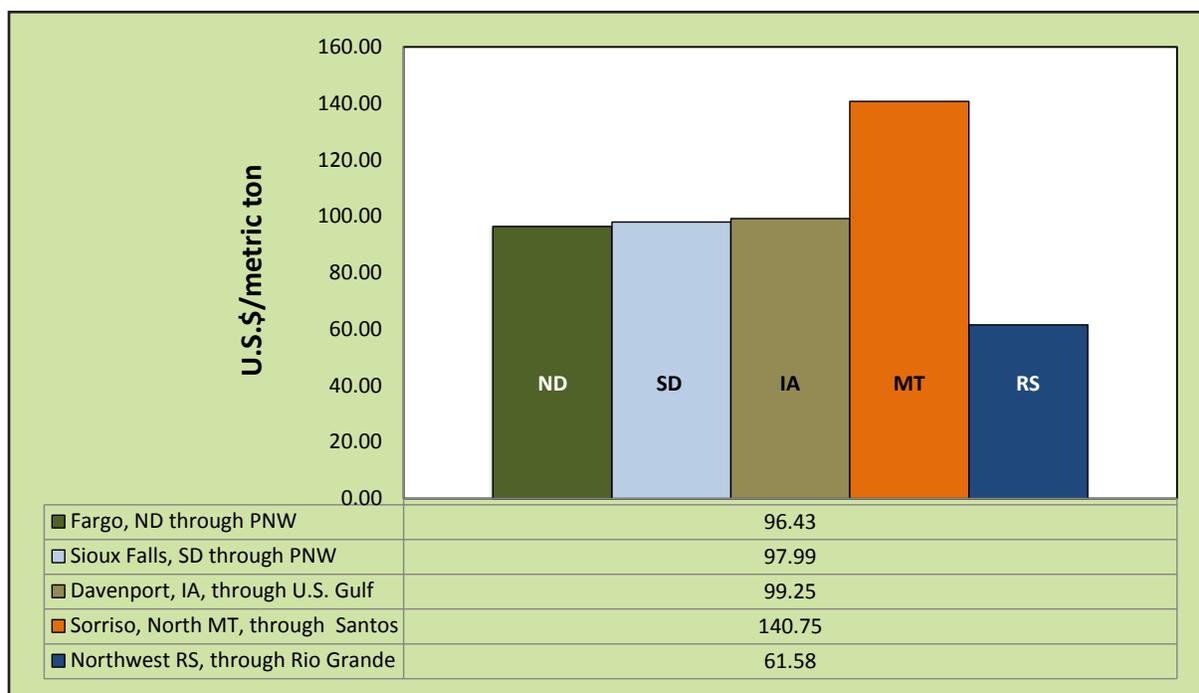
In 2014, the cost of shipping a metric ton of soybeans from Cruz Alta, Northwest Rio Grande do Sul (RS), to Shanghai, China, was \$37.67 less than from Davenport, IA. The distance from Cruz Alta to the port of Rio Grande is 288 miles.

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



During 2014, Sorriso, North MT, soybean shippers to Shanghai paid \$42-\$44 per metric ton more than U.S. exporters through the U.S. Gulf and PNW routes; and \$79 more than the transportation cost paid by Cruz Alta, RS, shippers.

Transportation cost differences between selected Brazil-United States Routes to Shanghai, China, 2014



2014 Summary

In 2014, truck rates (valued in reais) from Sorriso, North Mato Grosso (MT), and Primavera do Leste (Southeast MT) to Santos and Paranaguá, decrease 2-3 percent. Truck rates from Cruz Alta, Rio Grande do Sul (RS) to Rio Grande and Rio Verde, South Goiás (GO) increased 15 percent.

Truck rates for selected Brazilian soybean export routes, 2008-2014

Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	2008	2009	2010	2011	2012	2013	2014	Percent Change 13-14
				Reais/metric ton							
1	Northwest RS ³ (Cruz Alta)	Rio Grande	288	39.75	48.32	49.58	62.44	50.35	49.90	57.52	15.3
2	North MT (Sorriso)	Santos	1190	206.25	191.73	205.40	206.03	218.00	250.60	243.68	-2.8
3	North MT (Sorriso)	Paranaguá	1262	196.05	180.30	195.09	197.09	212.49	241.25	236.81	-1.8
4	South GO (Rio Verde)	Santos	587	99.16	100.36	113.85	106.57	107.31	126.98	146.51	15.4
6	North Central PR (Londrina)	Paranaguá	268	60.78	54.50	60.70	66.07	67.92	69.02	72.47	5.0
11	Southeast MT (Primavera do Leste)	Santos	901	144.86	147.22	164.18	159.93	164.92	190.65	185.01	-3.0

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 2014, selected Brazilian export truck routes, measured in reais (R\$), saw proportionally lower transportation costs, than those estimated U.S. dollars due to the depreciation of the Brazilian real (R\$) against the U.S. dollar. Truck rates from Cruz Alta, Rio Grande do Sul (RS) to Rio Grande increased nearly 6 percent. In 2014, the Brazilian real (R\$) depreciated 8.1 percent against the U.S. dollar compared with 2013.

Truck rates for selected Brazilian soybean export routes, 2008-2014

Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	2008	2009	2010	2011	2012	2013	2014	Percent Change 13-14
				US\$/metric ton							
1	Northwest RS ³ (Cruz Alta)	Rio Grande	288	22.29	24.50	28.18	37.54	25.83	23.26	24.56	5.6
2	North MT (Sorriso)	Santos	1190	115.74	97.00	116.78	123.31	111.78	116.40	103.90	-10.7
3	North MT (Sorriso)	Paranaguá	1262	109.90	91.36	110.94	117.90	108.93	111.93	100.89	-9.9
4	South GO (Rio Verde)	Santos	587	55.33	50.83	64.71	63.92	55.02	58.90	62.57	6.2
6	North Central PR (Londrina)	Paranaguá	268	33.60	27.37	34.51	39.54	34.76	32.26	30.98	-4.0
11	Southeast MT (Primavera do Leste)	Santos	901	80.61	74.39	93.41	95.82	84.42	88.66	79.00	-10.9

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

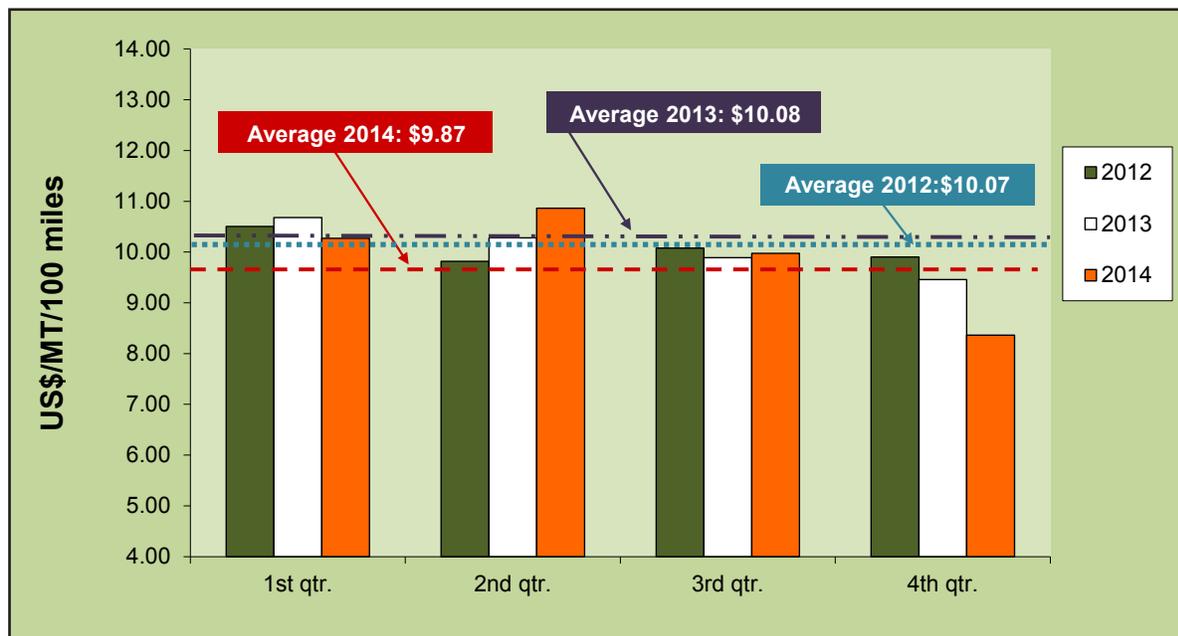
²Distance from the main city of the considered region to the mentioned ports.

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 slightly decreased in 2014. The cost of shipping a metric ton (mt) of soybeans 100 miles by truck decreased from \$10.08 in 2013 to \$9.87 in 2014. A record soybean crop, port congestions, a new “Driver’s Law” that reduced the number of hours a truck driver can work in a 24-hour period, and a weaker currency against the U.S. dollar encouraged shippers to increase exports from the ports of São Francisco, Vitória, Salvador, Manaus, Barcarena, Imituba, and Ilhéus.

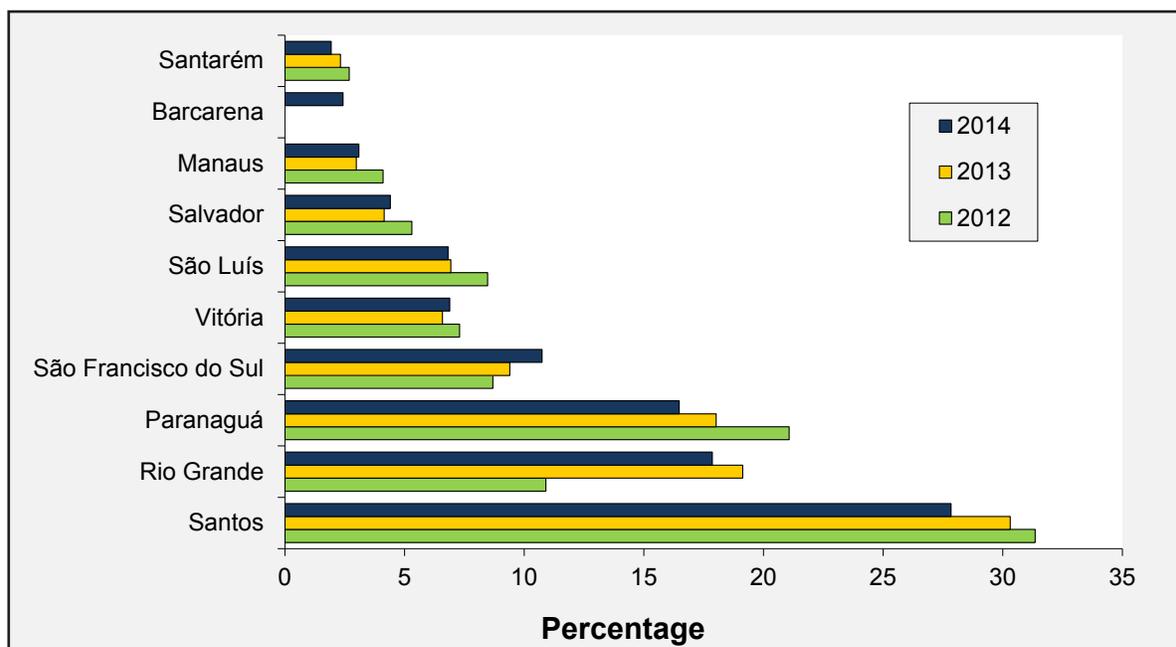
Brazilian soybean export truck cost index



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

Brazil is the second largest soybean exporting country after the United States. In 2014, Santos was the largest Brazilian soybean export port followed by Rio Grande and Paranaguá, accounting for 62 percent of total exports. However, exports from these 3 ports declined 5 percent, but increased significantly from São Francisco, Vitória, Salvador, Manaus, Barcarena, Imituba, and Ilhéus compared with 2013. The ports of Manaus (AM), Barcarena and Santarém (PA) represented 7.5 percent of total Brazilian soybean exports.

Brazil soybean exports by port

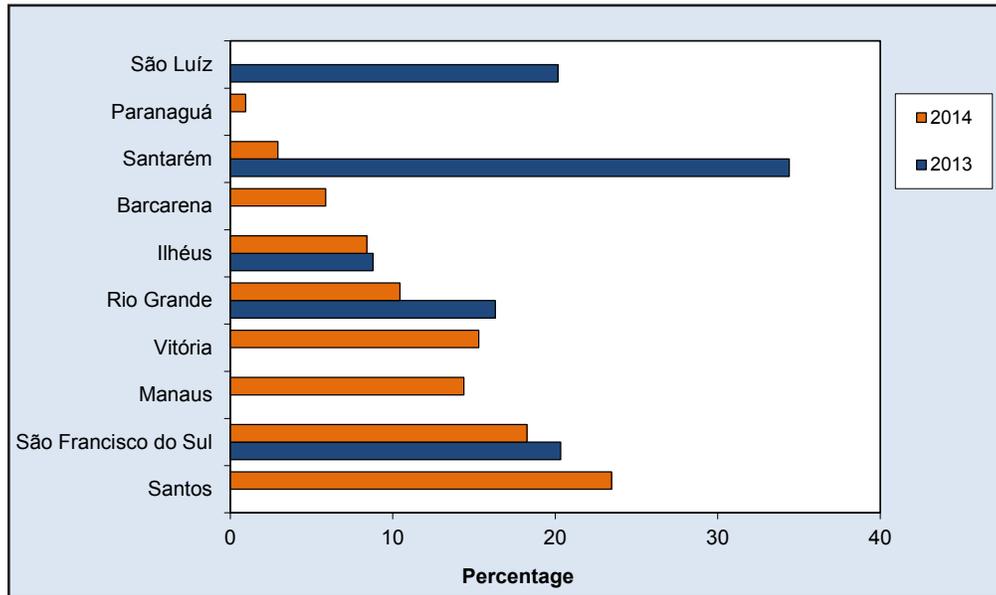


Sources: Secretariat of Foreign Trade (SECEX), MDIC, and Companhia Nacional de Abastecimento (CONAB)

2014 Summary

In 2014, Brazil exported to the United States three times more soybeans than in 2013, totaling 1.06 million mt, valued at US\$ 538.1 million. Santos was the largest Brazilian soybean export port to the United States followed by São Francisco do Sul, Vitória, Manaus, Rio Grande, Ilhéus, Barcarena, Santarém, and Paranaguá. The southern port of Santos, São Francisco do Sul, Rio Grande, and Paranaguá accounted for 53 percent of Brazilian soybean exports to the United States. The Amazon River ports of Manaus, Barcarena, and Santarém and the northeastern ports of Vitória and Ilhéus represented 23 percent and 23.7 percent of exports, respectively.

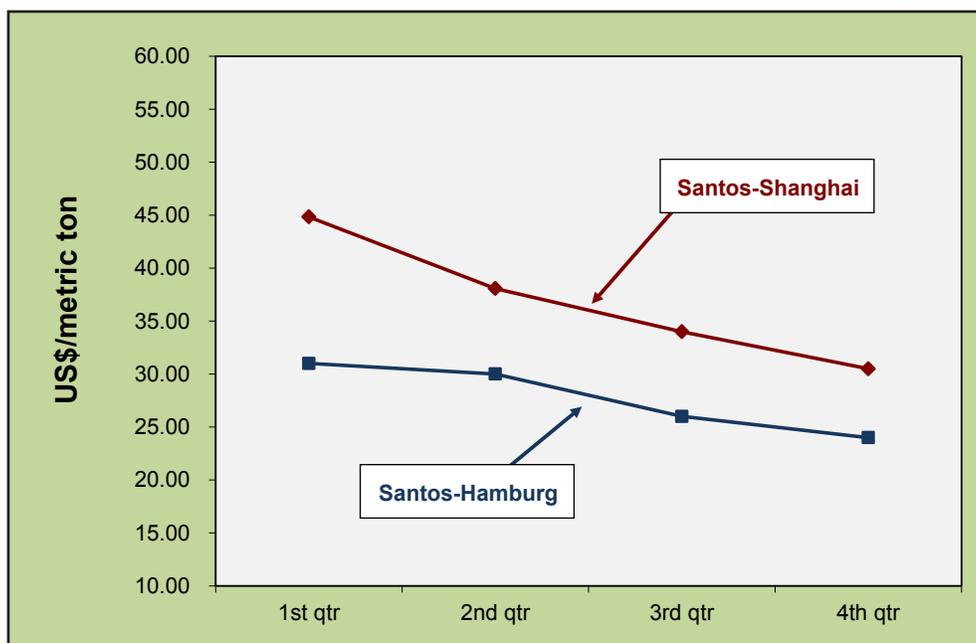
Brazil soybean exports to the United States by port



Sources: Secretariat of Foreign Trade (SECEX), MDIC

In 2014, ocean rates from the Port of Santos to Shanghai, China, dropped 10 percent compared with 2013 rates, averaging \$36.85/mt. Ocean rates to Hamburg decreased nearly 6 percent from 2013 rates, averaging \$27.75/mt. Excess vessel supply kept ocean rates low in 2014.

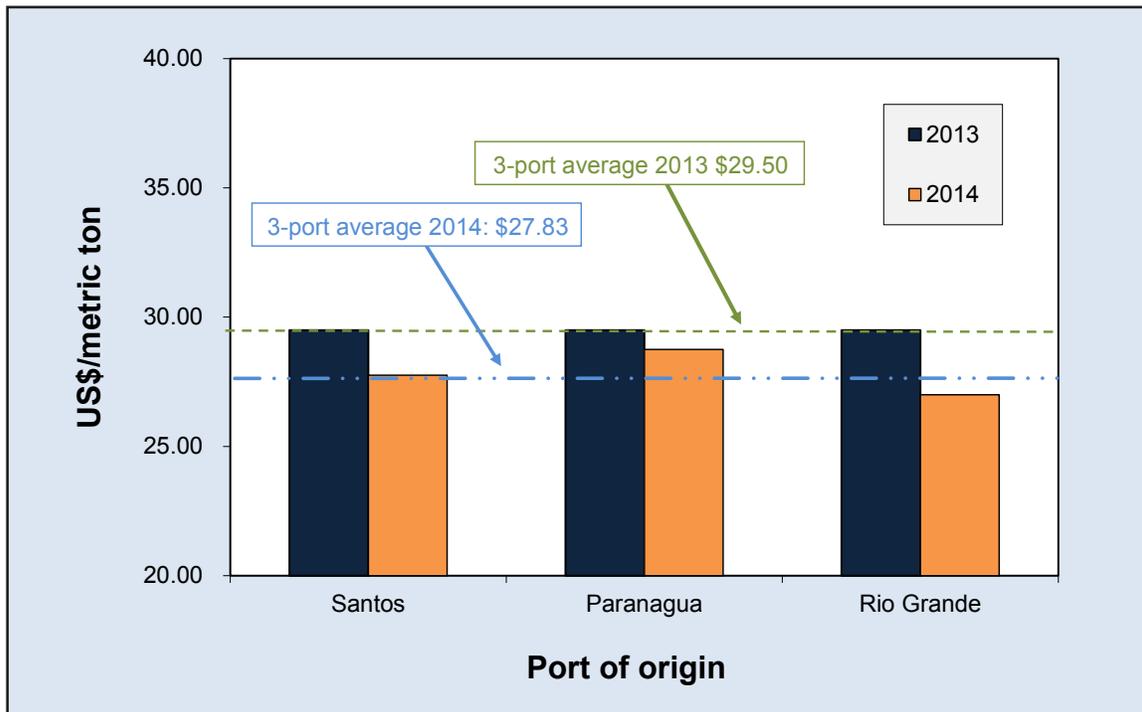
Brazilian soybean ocean freight from Santos to Shanghai and Hamburg, 2014



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 about 6 percent from \$29.50/mt to \$27.83/mt. Excess vessel supply kept ocean rates low in 2014.

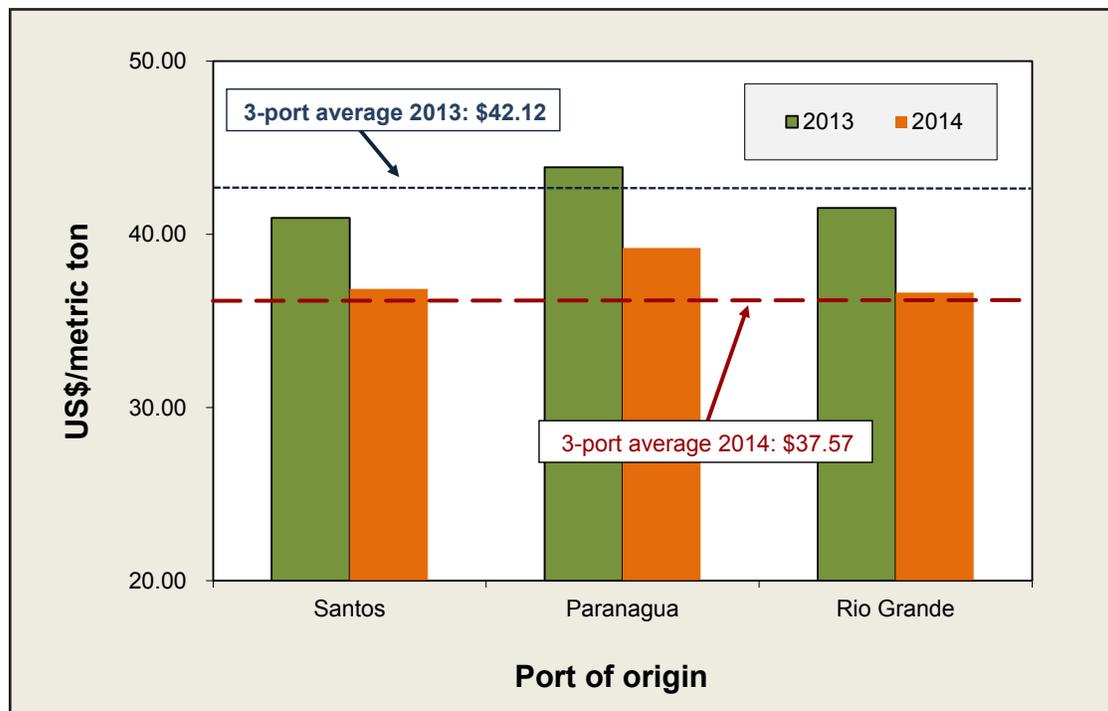
Ocean rates from Brazil to Hamburg, Germany, decreased in 2014



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

In 2014, the cost to ship 1 mt of soybeans from Brazil to Shanghai by ocean vessel dropped nearly 11 percent on average from \$42.12/mt to \$37.57/mt. Excess vessel supply kept ocean rates low in 2014.

Ocean rates from Brazil to Shanghai, China, declined in 2014

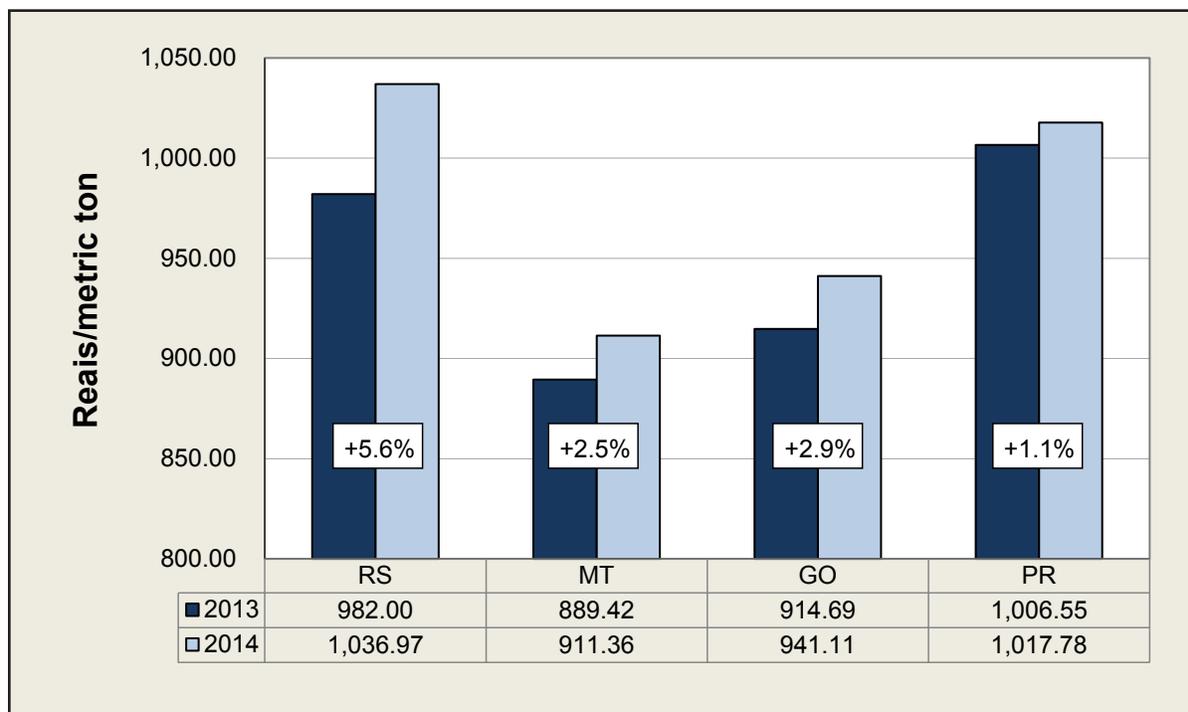


Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

2014 Summary

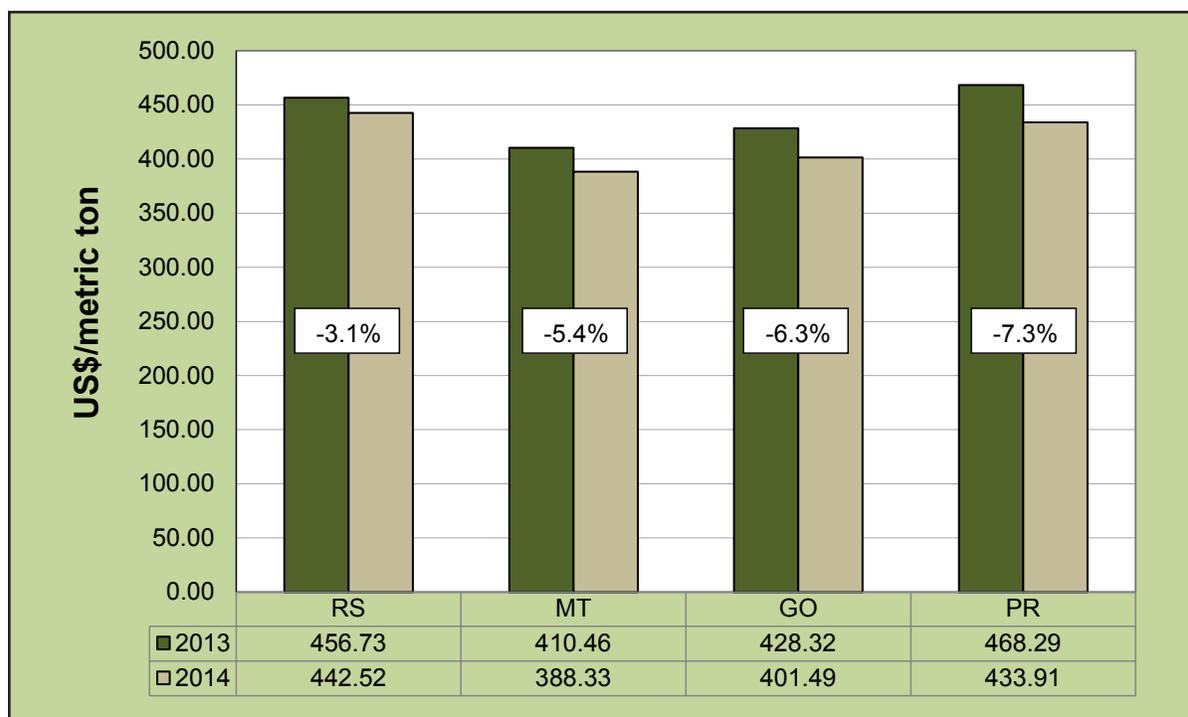
In 2014 farm prices in the Brazilian real (R\$) increased on average 3 percent. Mato Grosso (MT) and Rio Grande do Sul (RS) farm prices increased nearly 3 and 6 percent, respectively, in 2014. However, when farm prices are measured in U.S. dollars, they decreased proportionally more, about 6 percent, 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)

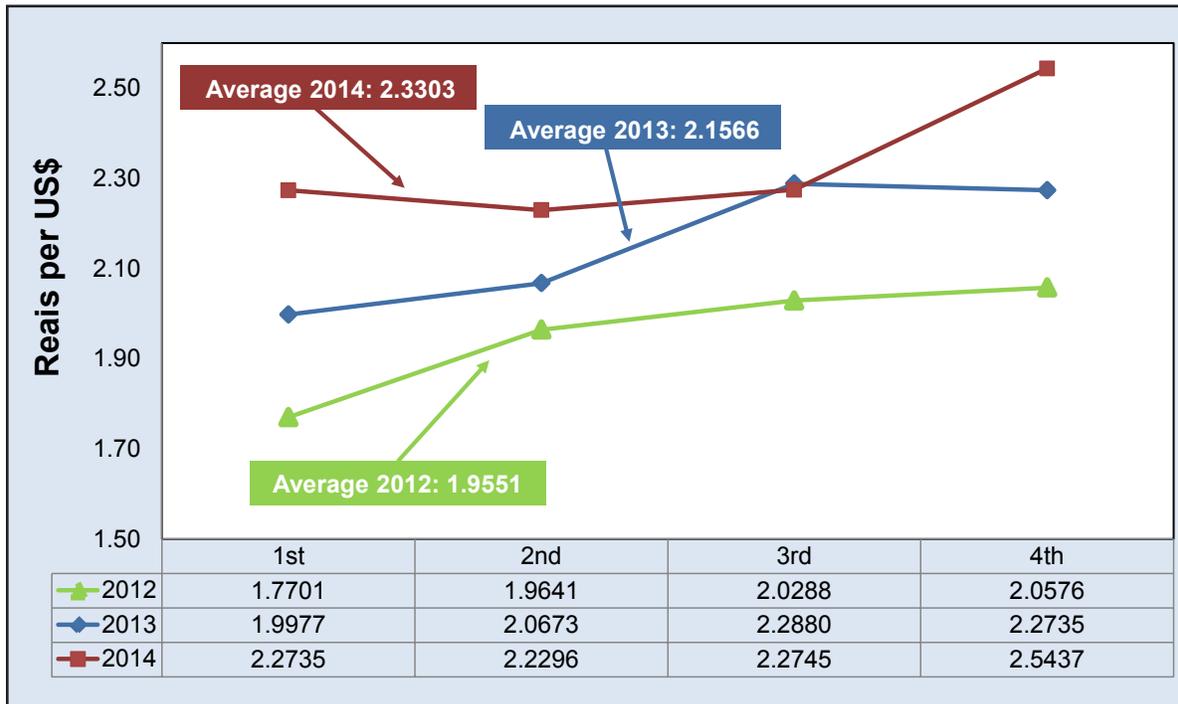
Selected Brazilian farm prices



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

In 2014, the Brazilian real (R\$) depreciated 8.1 percent against the U.S. dollar compared with 2013, from R\$2.15 per US\$ to R\$2.33.

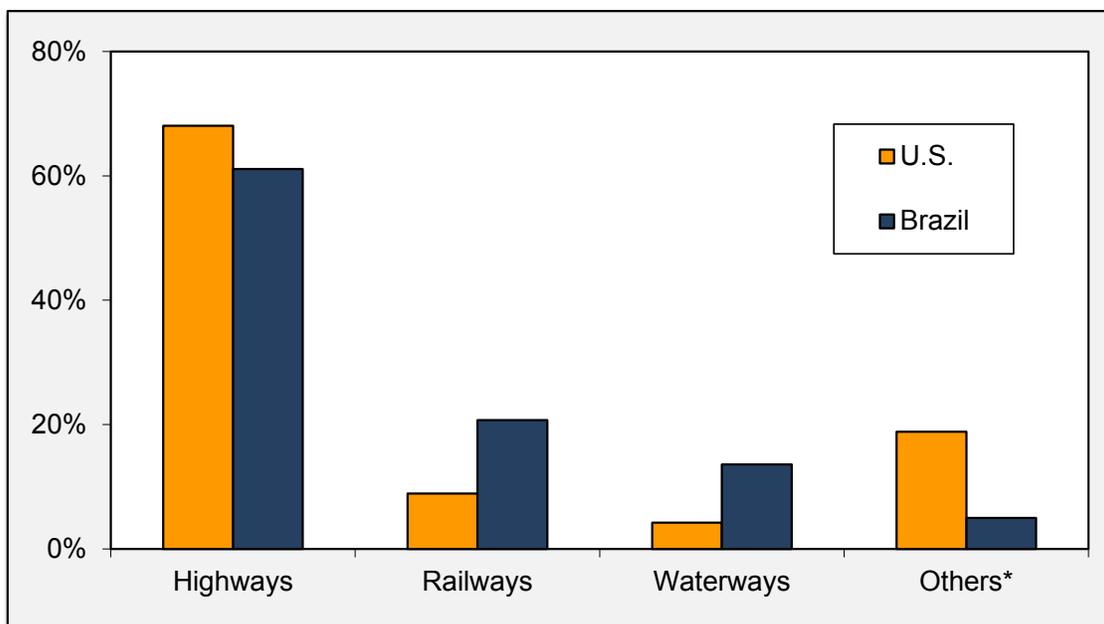
Average quarterly exchange rate, real per U.S. dollar



Source: Banco Central do Brasil

More than 60 percent of 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.

2014 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, likely raising 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 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 or more restart provision to begin a new 7 or 8 day on-duty** period (see weekly limits)	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); The restart provision can only be used once per week and must include two periods from 1:00 AM to 5:00 AM, based on home terminal time. It is intended to provide sufficient time for a driver to recuperate from cumulative fatigue if they work beyond the weekly maximum on-duty limits.

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 1 (PAC 1) 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. By March 2010, the Government announced the second Growth Acceleration Plan (PAC 2), 2011-2014.

The ninth evaluation results of Growth Acceleration Program 2 (PAC 2), 2011-2013, showed that Brazil did not finish the projects as planned. However, the Midwest agricultural exporters in Brazil gained from selected strategic port improvements, extended railways miles and a new intermodal grain terminal. Some of the port improvements include: dredging in the ports of: Santos (SP), São Francisco do Sul (SC), and Rio Grande (RG); Port of port of Itaquí (MA) expansion and building pier 100; São Francisco do Sul (SC) Pier 102 restoration; and Port of Vila do Conde (PA) main pier expansion.

Three railroad projects are underway and scheduled to finish by the end of 2015.

1. Ferronorte railroad (Rondonópolis-Alto Araguaia), finished 153 railway miles, including an intermodal yard in Rondonópolis facilitating the flow of grains from Mato Grosso (MT) to the southern port of Santos.
2. By November 30, 2014, the North-South railroad (Palmas,Tocantinas (TO)-Estela D'Oeste, São Paulo (SP)) is expected to be finished. This railroad integrates 4 states: TO, Goiás (GO), Minas Gerais (MG),and SP with access to the northeastern port of Itaquí-São Luis (MA).
3. By the end of 2015, the East-West railroad (Ilheusin-Caetitê-Port of Ilhéus Bahia (BA)) will facilitate the movement of grain from the midwest, north and northeast to Ilhéus.

By December 30, 2015, highway BR-163 (began in PAC 1), will complete 619 miles, connecting Brazil's Midwest to the Amazon River. BR-163 will significantly reduce transportation costs to the Amazon River ports, on the Brazil—Europe route. It will shift soybeans exports to Europe from the southern ports to the north. However, it is less likely that the Brazil—China route would be significantly affected because it requires a major cost reduction of inland transportation to offset the increase in ocean rates—due to 7 or 8 additional days at sea—through South Africa's Cape of Good Hope to China.

Growth Acceleration Program 2 (PAC 2), 9th evaluation results, 2011-2013		
Transportation Mode	2011-2013	
	km	miles
Highways		
Completed	3,080	1,910
Initiated	274	170
Work in progress	6,915	4,287
Total	10,269	6,367
Railways		
Completed	639	396
Work in progress	2,471	1,532
Total	3,110	1,928
Ports — Modernization and increase capacity and inland waterways		
Ports	21 projects	
Inland Waterways		
Tietê waterway improvements	6.4	

Source: Brazilian Ministry of Transportation, PAC 2; <http://www.transportes.gov.br/>; Accessed 3-10-14

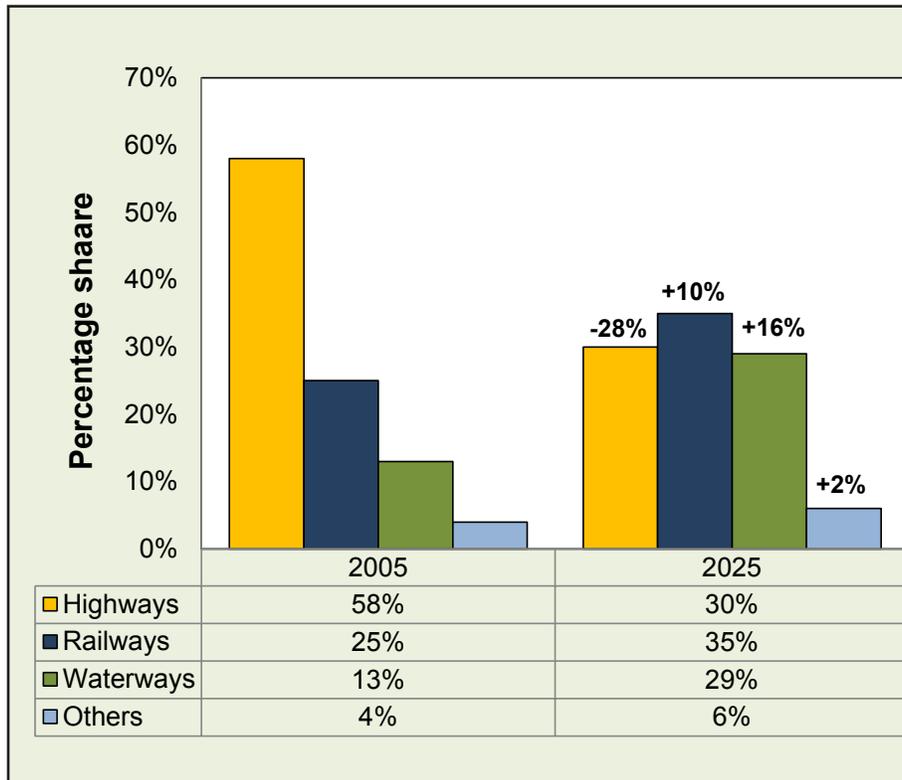
Transportation Infrastructural Developments

Select infrastructural improvements status, Growth Acceleration Program 2 (PAC 2) 9th evaluation results, 2011-2013

Transportation Mode	2011-2013		% finished	Expected date of completion/notes
	km	miles		
Highways				
BR-163: Garantã do Norte, Mato Grosso (MT)-Santarém, Pará (PA), including access to Miríituba-BR-230 (PA)	999	619		Dec. 30, 2015. It connects North MT-PA to the Amazon port of Santarém.
Completed	277	172	27.7	
Work in progress status by segment:	722	448	72.3	
Segment III: Divisa (MT)-Garantã do Norte (MT) and Travesia Urbana de Garantã	52	32	100	
Segment II: Rurópolis-Divisa (MT) with access to Miríituba (BR-230 (PA)-33 km (20 miles) Divisa MT, total: 822 km (510 miles)	822	510	22.4	Dec. 20, 2015
Segment I: Santarém- Rurópolis (PA)	125	78	32.8	Oct. 31, 2015
Total:	999	619		
Railways				
Ferronorte extension: Rondonópolis-Alto Araguaia (MT), including Intermodal Yard Rondonópolis (MT), 52 miles (84 km). In addition, to the previous 101.1 miles (163 km) built in the PAC 1, totaling 153 miles.	247	153	100	Note: this new terminal facilitates the flow of grains exports from MT to the southern port of Santos (SP).
North-South: Palmas,Tocantinas (TO)-Estela D'Oeste, São Paulo (SP).	1,536	952		Nov. 30, 2014. It integrates 4 states: TO, Goiás (GO), Minas Gerais (MG),and SP with access to the northeastern port of Itaqui-São Luis (MA).
Completed	283	175	18.4	
Work in progress	1254	777	81.6	
North-South segment status updates:				
Segment I: Palmas (TO)-Anápolis (GO): total 855 km	855	530		March 31, 2014: Finished 410 km (254 miles).
-Palmas (TO)--Uruguaçu (GO)	575	357	94.8	March 31, 2014
-Uruguaçu (GO)-Anápolis (GO)	280	174	91.2	March 31, 2014
Segment II: Ouro Verde/GO-Estela D'Oeste/SP	681	422	53.0	Nov. 30, 2014
East-West: Ilheusin-Caetité-Port of Ilhéus Bahia (BA)	1,022	634		Dec. 30, 2015. It connects Barreiras (BA) with the northeastern port of Ilhéus (BA)
Completed	200	124	37.3	
Work in progress	822	509	80.4	
East-West segment status updates:				
Segment I: Caetité (BA)-Port of Ilhéus (BA)	537	333	37.3	Dec. 30, 2014
Segment II: Ilheusin (BA)-Caetité Bahia (BA)	485	301		Dec 30, 2015: Project status: bidding process
Ports — Modernization and increase capacity				
Dredging in 7 ports of: Santos (SP), São Francisco do Sul (SC), Natal (RN), Fortaleza (CE), Itajaí (SC), Rio de Janeiro (RJ), and Suape (PE)			100	
Rio Grande do Sul (RS): Pier expansions			100	
Itaqui (MA): build pier 100, south pier enlargement and port expansion			100	The Port of Itaqui is a natural port with an average access channel of 98 feet (30 meters) an a minimum depth of 88.6 feet (27 meters), and a length of 5,904 feet (1,800 meters). The dock depth is 29.5 – 62.3 feet (9–19 meters). The terminal of Ponta Madeiras access channel ranges between 75.4 to 114.8 feet (23 to 35 meters).
Vitoria (ES): recovery, enlargement and extension of commercial wharf Victoria Harbor			100	
São Francisco do Sul (SC): Pier 102 restoration			100	
Port of Vila do Conde (PA): expansion of main pier			100	

Source: Brazilian Ministry of Transportation, PAC 2; <http://www.transportes.gov.br/>; Accessed 3-10-14

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	46.9	37.6
II: 2013-2015	84.3	36.2	29.0
III: 2015-2023	97.3	41.8	33.4
Total	290.8	124.8	100

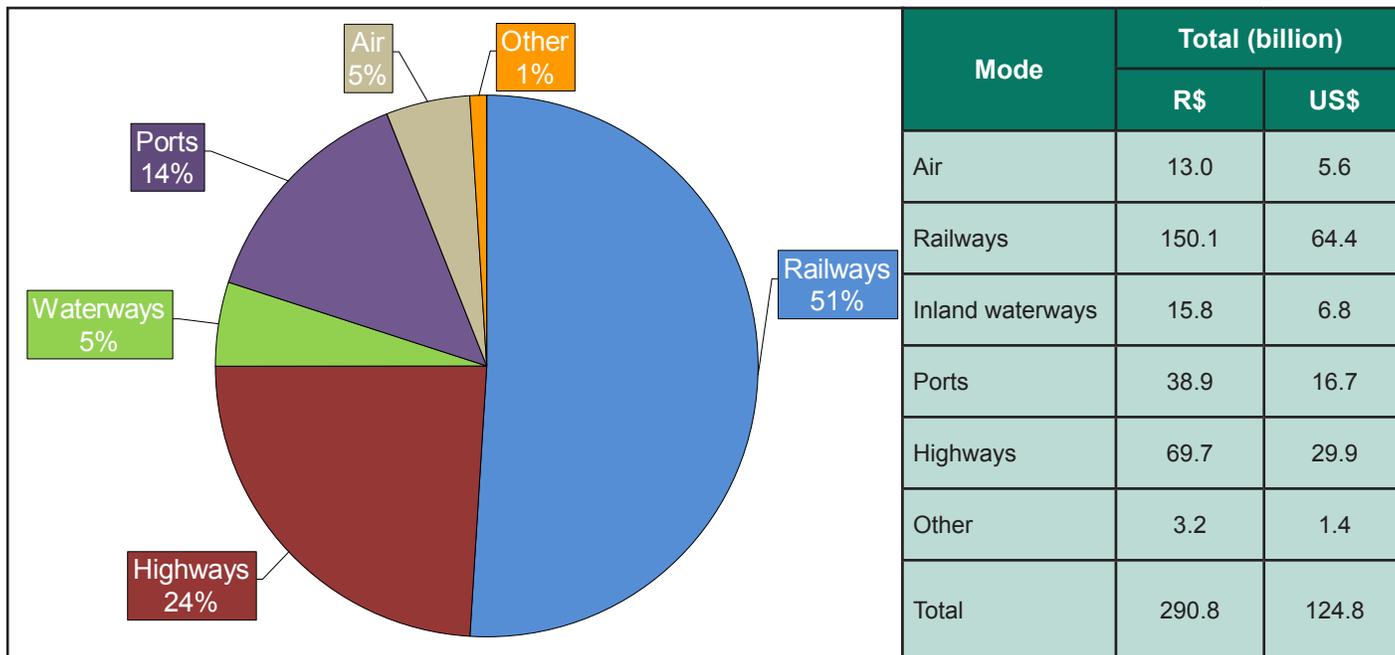
*Average 2014 exchange rate: 1 US\$ = R\$ 2.3303

Source: Brazilian Ministry of Transportation

Transportation Infrastructural Developments

Of the funds to be allocated to the logistic sector (US\$124.8 billion), about 51 percent of the funds will be allocated to the railway system, totaling about US\$64.4 billion.

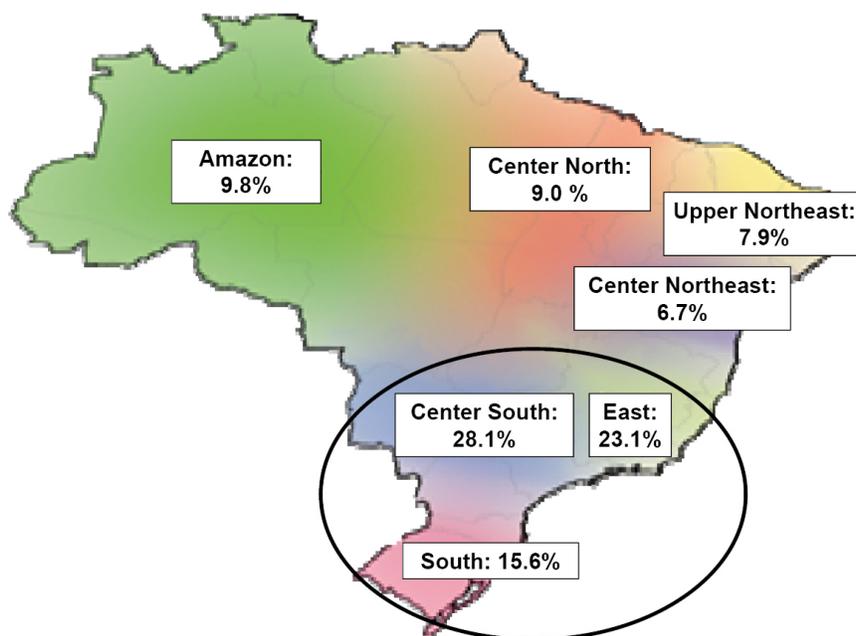
National Logistics and Transportation Program (PNLT), allocations by mode, 2008-2023



Average 2014 exchange rate: 1 US\$ = R\$ 2.3303
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

A total of US\$6.8 billion are assigned to improve the inland waterways: 61 percent of the funds will be allocated to improve the inland waterways in the Amazon (31.3 percent) and Center North regions (29.7 percent), see yellow highlight below; 62 percent of the port funds, US\$19.5 billion, will be allocated to improve the ports in the East (41.5 percent) and Center South (20.8 percent); and 34 percent of the total highway funds, US\$34.9 billion, will be allocated to improve the highway system of the Amazon (16.5 percent) and South regions (18 percent).

PNLT — Transportation mode investments by logistic vectors, and % of total								
Mode	Amazon	Center-North	Center-South	East	Center Northeast	Upper Northeast	South	Total
Air	5.3	6.6	28.2	20.8	2.8	25.0	11.4	100
Railways	6.8	6.2	37.4	24.2	5.9	4.5	14.9	100
Inland waterways	31.3	29.7	13.0	9.6	1.7	1.0	13.7	100
Ports	2.6	8.7	20.8	41.5	4.0	5.3	17.0	100
Highways	16.5	9.1	15.5	14.6	12.0	14.4	18.0	100
Other	0.0	49.3	24.3	7.2	0.5	16.5	2.5	100
% of Brazil	9.9	9.2	11.3	9.6	20.4	22.7	16.9	100

Source: Brazilian Ministry of Transportation

Transportation Indicators

Quarterly costs of transporting Brazilian soybeans to Shanghai, China										
	2014									
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	North MT ¹ - Santos ² --US\$/mt--					North MT ¹ - Paranaguá ² --US\$/mt--				
Truck	113.35	108.54	102.78	90.94	103.90	110.50	104.20	98.67	90.20	100.89
Ocean	44.83	38.07	34.00	30.50	36.85	47.22	41.13	36.00	32.50	39.21
Total transportation	158.18	146.61	136.78	121.44	140.75	157.72	145.33	134.67	122.70	140.11
Farm price ³	375.58	417.02	398.98	361.74	388.33	375.58	417.02	398.98	361.74	388.33
Landed cost	533.76	563.63	535.76	483.18	529.08	533.30	562.36	533.65	484.44	528.44
Transport % of landed cost	29.6	26.0	25.5	25.1	27.8	29.6	25.8	25.2	25.3	26.5
	Southeast MT ¹ - Santos ² --US\$/mt--					North Central PR ¹ - Paranaguá ² --US\$/mt--				
Truck	84.36	84.39	80.56	66.68	79.00	31.59	35.53	31.64	25.15	30.98
Ocean	44.83	38.07	34.00	30.50	36.85	47.22	41.13	36.00	32.50	39.21
Total transportation	129.19	122.46	114.56	97.18	115.85	78.81	76.66	67.64	57.65	70.19
Farm price ³	375.58	417.02	398.98	361.74	388.33	463.81	471.00	416.92	383.90	433.91
Landed cost	504.77	539.48	513.54	458.92	504.18	542.63	547.66	484.56	441.55	504.10
Transport % of landed cost	25.6	22.7	22.3	21.2	22.9	14.5	14.0	14.0	13.1	13.9
	South GO ¹ - Santos ² --US\$/mt--					Northwest RS ¹ - Rio Grande ² --US\$/mt--				
Truck	71.06	69.10	59.02	51.13	62.57	21.57	28.91	25.21	22.54	24.56
Ocean	44.83	38.07	34.00	30.50	36.85	44.83	38.75	32.50	30.50	36.65
Total transportation	115.89	107.17	93.02	81.63	99.42	66.40	67.66	57.71	53.04	61.20
Farm price ³	420.52	441.74	394.07	349.62	401.49	482.75	464.19	455.08	368.05	442.52
Landed cost	536.40	548.91	487.09	431.24	500.91	549.15	531.86	512.79	421.09	503.72
Transport % of landed cost	21.6	19.5	19.1	18.9	19.8	12.1	12.7	11.3	12.6	12.2

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 Brazilian soybeans to Hamburg, Germany										
	2014									
	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg	1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
	North MT ¹ - Santos ² --US\$/mt--					North MT ¹ - Paranaguá ² --US\$/mt--				
Truck	113.35	108.54	102.78	90.94	103.90	110.50	104.20	98.67	90.20	100.89
Ocean	31.00	30.00	26.00	24.00	27.75	31.00	30.00	28.00	26.00	28.75
Total transportation	144.35	138.54	128.78	114.94	131.65	141.50	134.20	126.67	116.20	129.64
Farm price ³	375.58	417.02	398.98	361.74	388.33	375.58	417.02	398.98	361.74	388.33
Landed cost	519.93	555.56	527.76	476.68	519.98	517.08	551.23	525.65	477.94	517.98
Transport % of landed cost	27.8	24.9	24.4	24.1	25.3	27.4	24.3	24.1	24.3	25.0
	Southeast MT ¹ - Santos ² --US\$/mt--					North Central PR ¹ - Paranaguá ² --US\$/mt--				
Truck	84.36	84.39	80.56	66.68	79.00	31.59	35.53	31.64	25.15	30.98
Ocean	31.00	30.00	26.00	24.00	27.75	31.00	30.00	28.00	26.00	28.75
Total transportation	115.36	114.39	106.56	90.68	106.75	62.59	65.53	59.64	51.15	59.73
Farm price ³	375.58	417.02	398.98	361.74	388.33	463.81	471.00	416.92	383.90	433.91
Landed cost	490.94	531.41	505.54	452.42	495.08	526.41	536.53	476.56	435.05	493.64
Transport % of landed cost	23.5	21.5	21.1	20.0	21.5	11.9	12.2	12.5	11.8	12.1
	South GO ¹ - Santos ² --US\$/mt--					Northwest RS ¹ - Rio Grande ² --US\$/mt--				
Truck	71.06	69.10	59.02	51.13	62.57	21.57	28.91	25.21	22.54	24.56
Ocean	31.00	30.00	26.00	24.00	27.75	31.00	30.00	24.50	22.50	27.00
Total transportation	102.06	99.10	85.02	75.13	90.32	52.57	58.91	49.71	45.04	51.56
Farm price ³	420.52	441.74	394.07	349.62	401.49	482.75	464.19	455.08	368.05	442.52
Landed cost	522.57	540.84	479.09	424.74	491.81	535.32	523.11	504.79	413.09	494.08
Transport % of landed cost	19.5	18.3	17.7	17.7	18.3	9.8	11.3	9.8	10.9	10.5

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, 2014									
Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	Share (%) ³	Freight Price (US\$)				Avg
					1st	2nd	3rd	4th	
					----- (per 100 miles) ⁴ -----				
1	Northwest RS ⁵ (Cruz Alta)	Rio Grande	288	6.9	7.49	10.04	8.75	7.83	8.53
2	North MT (Sorriso)	Santos	1190	14.3	9.53	9.12	8.64	7.64	8.73
3	North MT (Sorriso)	Paranaguá	1262	13.5	8.76	8.26	7.82	7.15	7.99
4	South GO (Rio Verde)	Santos	587	6.9	12.11	11.77	10.05	8.71	10.66
5	South GO (Rio Verde)	Paranaguá	726	5.6	9.49	9.23	7.89	6.85	8.36
6	North Central PR (Londrina)	Paranaguá	268	3.8	11.79	13.26	11.81	9.38	11.56
7	Western Central PR (Mamborê)	Paranaguá	311	2.9	10.65	12.01	11.48	9.17	10.83
8	Triangle MG (Uberaba)	Santos	339	3.4	17.95	18.23	16.91	14.69	16.95
9	West PR (Assis Chateaubriand)	Paranaguá	377	2.0	10.70	13.09	12.45	10.26	11.62
10	West Extreme BA (São Desidério)	Salvador	535	6.2	8.87	11.94	11.48	8.68	10.24
11	Southeast MT (Primavera do Leste)	Santos	901	3.7	9.36	9.37	8.94	7.40	8.77
12	Southeast MT (Primavera do Leste)	Paranaguá	975	3.4	7.45	7.14	6.79	6.37	6.94
13	Southwest MS (Maracaju)	Paranaguá	612	2.8	9.14	10.46	9.08	7.73	9.10
14	Southwest MS (Maracaju)	Santos	652	2.7	10.18	11.72	10.18	8.89	10.24
15	West PR (Assis Chateaubriand)	Santos	550	1.4	7.91	8.67	8.25	7.05	7.97
16	East GO (Cristalina)	Santos	585	2.4	13.87	13.23	11.25	9.16	11.88
17	North PR (Cornélio Procópio)	Paranaguá	306	2.0	13.95	14.65	13.50	7.23	12.33
18	Eastern Central PR (Castro)	Paranaguá	130	2.9	19.20	21.66	20.71	14.28	18.96
19	South Central PR (Guarapuava)	Paranaguá	204	2.3	14.46	16.31	15.59	10.67	14.26
20	North Center MS (São Gabriel do Oeste)	Santos	720	2.2	8.93	10.29	8.94	7.77	8.98
21	Ribeirão Preto SP (Guairá)	Santos	314	0.0	13.63	10.73	10.95	9.16	11.12
22	Northeast MT (Canarana)	Santos	950	3.2	10.40	9.84	9.31	7.13	9.17
23	East MS (Chapadão do Sul)	Santos	607	0.0	11.64	13.41	11.65	10.12	11.71
24	Northeast MT (Canarana)	Paranaguá	1075	2.8	5.03	4.76	4.51	6.71	5.25
25	Western Central RS (Tupanciretã)	Rio Grande	273	1.3	9.43	11.30	9.72	8.29	9.69
26	Southwest PR (Chopinzinho)	Paranaguá	291	1.3	13.07	14.02	12.90	10.94	12.73
Average			578	100.0	10.27	10.86	9.97	8.36	9.87

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, 2010-2014

Route #	Origin ¹ (reference city)	Destination	Distance (miles) ²	Share (%) ³	2010	2011	2012	2013	2014	Percent Change 2013-14
					Freight price					
1	Northwest RS ⁵ (Cruz Alta)	Rio Grande	288	10.81	28.18	37.54	25.83	23.26	24.56	5.6
2	North MT (Sorriso)	Santos	1190	13.02	116.78	123.31	111.78	116.40	103.90	-10.7
3	North MT (Sorriso)	Paranaguá	1262	12.27	110.94	117.90	108.93	111.93	100.89	-9.9
4	South GO (Rio Verde)	Santos	587	6.26	64.71	63.92	55.02	58.90	62.57	6.2
5	South GO (Rio Verde)	Paranaguá	726	5.06	64.64	62.90	52.94	68.08	60.73	-10.8
6	North Central PR (Londrina)	Paranaguá	268	4.08	34.51	39.54	34.76	32.26	30.98	-4.0
7	Western Central PR (Mamborê)	Paranaguá	311	3.63	32.21	38.14	31.02	33.23	33.68	1.3
8	Triangle MG (Uberaba)	Santos	339	3.18	54.49	57.43	45.04	40.42	57.45	42.1
9	West PR (Assis Chateaubriand)	Paranaguá	377	6.21	41.46	46.12	38.39	39.53	43.83	10.9
10	West Extreme BA (São Desidério)	Ilhéus	544	5.69	55.89	57.85	58.00	56.96	54.80	-3.8
11	Southeast MT (Primavera do Leste)	Santos	901	2.89	93.41	95.82	84.42	88.66	79.00	-10.9
12	Southeast MT (Primavera do Leste)	Paranaguá	975	2.67	87.66	93.55	76.93	75.43	67.65	-10.3
13	Southwest MS (Maracaju)	Paranaguá	612	3.34	65.92	64.59	58.87	57.46	55.70	-3.1
14	Southwest MS (Maracaju)	Santos	652	3.14	71.27	71.73	67.83	66.82	66.79	0.0
15	West PR (Assis Chateaubriand)	Santos	550	0.00	68.84	73.04	55.31	46.89	43.84	-6.5
16	Western Center RS (Tupanciretã)	Rio Grande	273	1.17	30.62	31.40	62.73	67.47	69.48	3.0
17	Southwest PR (Chopinzinho)	Paranaguá	291	1.87	30.68	34.02	29.85	38.48	37.73	-1.9
18	Eastern Central PR (Castro)	Paranaguá	130	2.47	25.88	26.55	23.87	25.08	24.65	-1.7
19	South Central PR (Guarapuava)	Paranaguá	204	2.23	33.26	36.23	32.37	30.46	29.08	-4.5
20	North Center MS (São Gabriel do Oeste)	Santos	720	1.83	69.62	70.45	63.40	64.58	64.67	0.1
21	Ribeirão Preto SP (Guairá)	Santos	314	0.00	42.19	42.16	37.18	35.15	34.91	-0.7
22	Northeast MT (Canarana)	Santos	950	2.12	107.72	114.22	97.31	99.10	87.11	-12.1
23	Assis SP (Palmital)	Santos	285	0.00	30.36	30.23	62.88	69.28	71.05	2.6
24	Northeast MT (Canarana)	Paranaguá	1075	1.87	112.65	115.15	86.74	53.29	56.47	6.0
25	Western Central RS (Tupanciretã)	Rio Grande	273	2.25	24.73	40.92	30.84	28.20	26.44	-6.2
26	Southwest PR (Chopinzinho)	Paranaguá	291	1.98	38.91	44.03	37.04	36.59	37.05	1.3
Average			626	100.0	67.23	73.32	58.23	58.24	57.03	-2.1

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

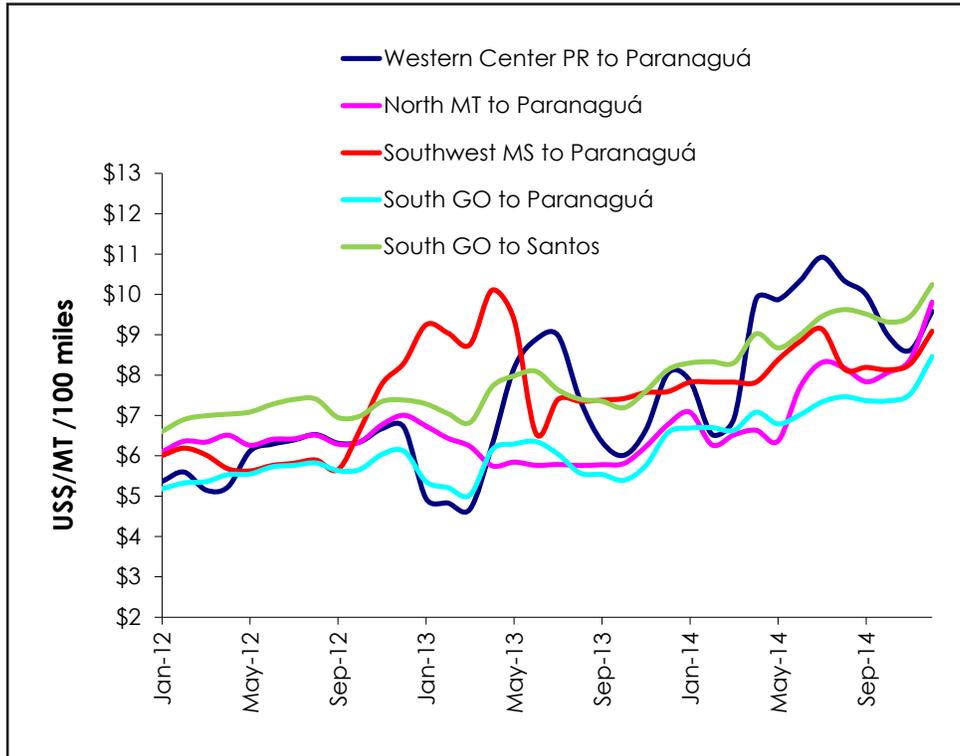
³Share is measured as a percentage of total production

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

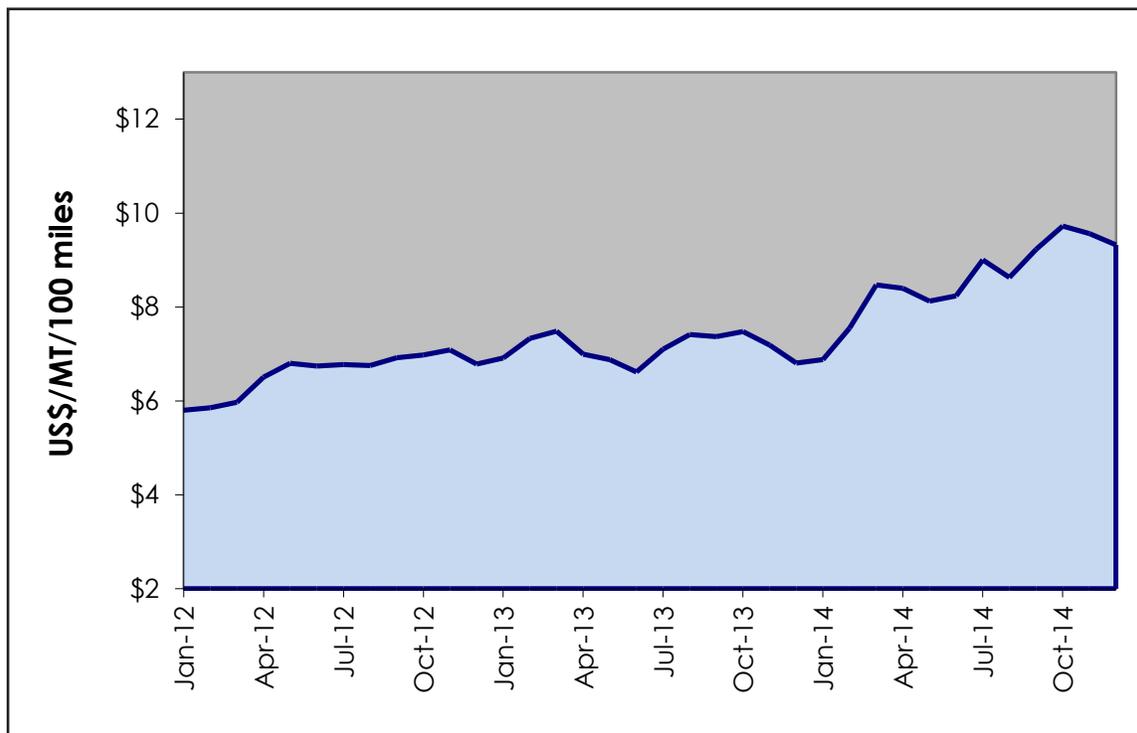
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

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, 2012/14



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

Transportation Indicators

Monthly Brazilian soybean export truck transportation cost index

Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)	Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan-07	6.88	1.1	118.60	Jan-11	10.84	1.1	186.89
Feb-07	7.55	9.7	130.15	Feb-11	11.21	3.4	193.30
Mar-07	8.47	12.2	146.00	Mar-11	12.07	7.6	208.04
Apr-07	8.40	-0.9	144.76	Apr-11	13.30	10.2	229.22
May-07	8.12	-3.3	140.05	May-11	12.01	-9.7	207.04
Jun-07	8.24	1.4	141.99	Jun-11	12.25	2.0	211.20
Jul-07	9.00	9.3	155.20	Jul-11	12.72	3.9	219.34
Aug-07	8.63	-4.2	148.75	Aug-11	12.64	-0.7	217.84
Sep-07	9.23	6.9	159.05	Sep-11	11.43	-9.6	196.95
Oct-07	9.72	5.4	167.61	Oct-11	11.09	-3.0	191.10
Nov-07	9.56	-1.6	164.86	Nov-11	10.70	-3.4	184.52
Dec-07	9.32	-2.5	160.71	Dec-11	10.04	-6.2	173.00
Jan-08	9.40	0.9	162.12	Jan-12	10.20	1.7	175.90
Feb-08	9.63	2.4	166.02	Feb-12	10.76	5.4	185.45
Mar-08	10.59	9.9	182.46	Mar-12	10.55	-2.0	181.82
Apr-08	10.81	2.1	186.35	Apr-12	10.45	-1.0	180.06
May-08	10.69	-1.1	184.32	May-12	9.64	-7.7	166.20
Jun-08	11.00	2.9	189.67	Jun-12	9.37	-2.9	161.44
Jul-08	12.05	9.5	207.73	Jul-12	9.76	4.2	168.16
Aug-08	11.14	-7.6	192.00	Aug-12	10.17	4.3	175.33
Sep-08	10.27	-7.8	177.00	Sep-12	10.30	1.3	177.54
Oct-08	7.44	-27.5	128.24	Oct-12	10.13	-1.6	174.66
Nov-08	7.20	-3.2	124.13	Nov-12	9.84	-2.8	169.69
Dec-08	6.79	-5.7	117.11	Dec-12	9.73	-1.1	167.74
Jan-09	6.91	1.7	119.11	Jan-13	10.11	3.9	174.31
Feb-09	7.28	5.4	125.52	Feb-13	10.79	6.7	185.96
Mar-09	7.65	5.1	131.89	Mar-13	11.14	3.3	192.04
Apr-09	8.44	10.3	145.42	Apr-13	10.95	-1.7	188.71
May-09	9.56	13.3	164.72	May-13	10.40	-5.0	179.31
Jun-09	9.74	2.0	167.97	Jun-13	9.49	-8.8	163.61
Jul-09	9.28	21.3	159.94	Jul-13	9.65	1.7	166.41
Aug-09	9.29	0.1	160.16	Aug-13	9.80	1.5	168.95
Sep-09	9.14	-1.6	157.62	Sep-13	10.21	4.2	176.02
Oct-09	9.32	1.9	160.66	Oct-13	10.17	-0.4	175.28
Nov-09	9.22	-1.1	158.93	Nov-13	9.29	-8.6	160.18
Dec-09	9.02	-2.2	155.48	Dec-13	8.91	-4.1	153.63
Jan-10	9.17	1.7	158.10	Jan-14	8.86	-0.6	152.73
Feb-10	9.99	8.9	172.16	Feb-14	10.34	16.7	178.24
Mar-10	10.77	7.8	185.67	Mar-14	11.61	12.3	200.13
Apr-10	10.91	1.3	188.10	Apr-14	11.35	-2.2	195.65
May-10	10.80	-1.1	186.10	May-14	10.90	-4.0	187.89
Jun-10	10.61	-1.7	182.95	Jun-14	10.34	-5.1	178.24
Jul-10	10.86	2.3	187.14	Jul-14	10.16	-1.7	175.21
Aug-10	11.21	3.3	193.23	Aug-14	10.10	-0.6	174.08
Sep-10	11.46	2.2	197.57	Sep-14	9.66	-4.3	166.54
Oct-10	11.51	0.4	198.41	Oct-14	8.77	-9.3	151.13
Nov-10	10.86	-5.6	187.20	Nov-14	8.36	-4.6	144.16
Dec-10	10.72	-1.3	184.79	Dec-14	7.96	-4.9	137.15

*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
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
2013			
1st qtr	52.34	56.03	51.34
2nd qtr	34.50	36.75	35.25
3rd qtr	34.50	36.75	35.25
4th qtr	42.50	46.00	44.25
2013 Average	40.96	43.88	41.52
2014			
1st qtr	44.83	47.22	44.83
2nd qtr	38.07	41.13	38.75
3rd qtr	34.00	36.00	32.50
4th qtr	30.50	32.50	30.50
2014 Average	36.85	39.21	36.65

*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)

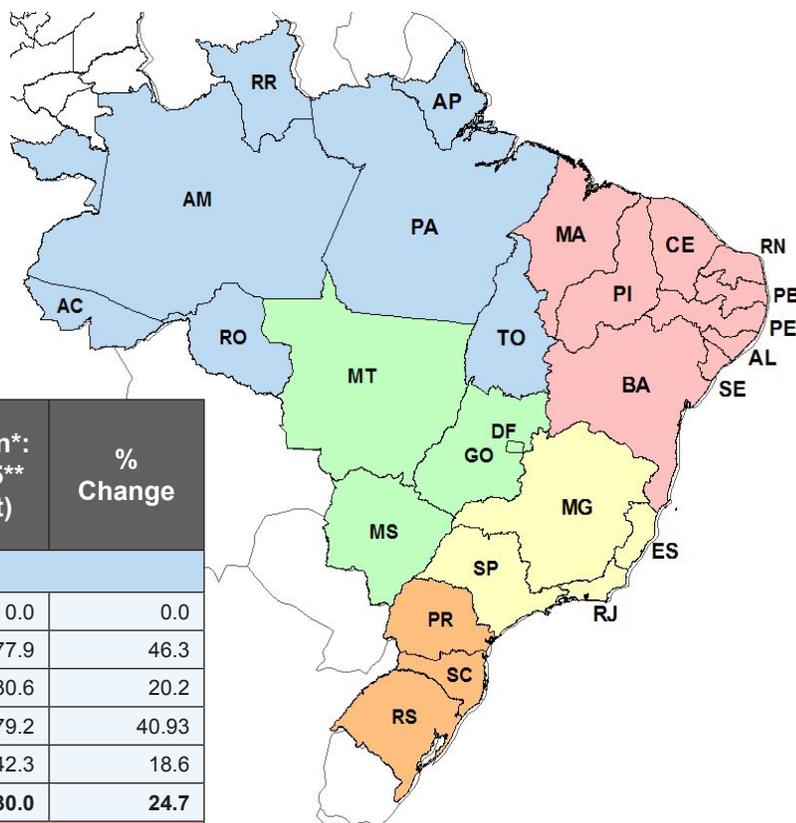
Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)*			
	Ports		
	Santos	Paranaguá	Rio Grande
2008			
1st qtr	57.38	58.90	59.36
2nd qtr	71.08	72.68	73.18
3rd qtr	48.80	50.20	50.70
4th qtr	32.18	33.48	33.98
2008 Average	52.36	53.81	54.30
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
2013			
1st qtr	30.00	30.00	30.00
2nd qtr	29.00	29.00	29.00
3rd qtr	29.00	29.00	29.00
4th qtr	30.00	30.00	30.00
2013 Average	29.50	29.50	29.50
2014			
1st qtr	31.00	31.00	31.00
2nd qtr	30.00	30.00	30.00
3rd qtr	26.00	28.00	24.50
4th qtr	24.00	26.00	22.50
2014 Average	27.75	28.75	27.00

*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*: 2013-2014 (1,000 mt)	Production*: 2014-2015** (1,000 mt)	% Change
North			
Amazonas (AM)	0.0	0.0	0.0
Pará (PA)	668.6	977.9	46.3
Rondônia (RO)	607.7	730.6	20.2
Roraima (RR)	56.2	79.2	40.93
Tocantins (TO)	2,058.8	2,442.3	18.6
Total	3,391.3	4,230.0	24.7
Northeast			
Bahia (BA)	3,308.0	4,121.7	24.6
Maranhão (MA)	1,823.7	2,057.7	12.8
Piauí (PI)	1,489.2	1,833.8	23.1
Total	6,620.9	8,013.2	21.0
Midwest			
Distrito Federal (DF)	216.0	144.7	-33.0
Goiás (GO)	8,994.9	8,745.0	-2.8
Mato Grosso (MT)	26,441.60	28,133.80	6.4
Mato Grosso do Sul (MS)	6,148.0	7,177.6	16.7
Total	41,800.5	44,201.1	5.7
Southeast			
Minas Gerais (MG)	3,327.0	3,507.0	5.4
São Paulo (SP)	1,688.3	2,360.9	39.8
Total	5,015.3	5,867.9	17.0
South			
Paraná (PR)	14,780.7	17,147.0	16.0
Rio Grande do Sul (RS)	12,867.7	14,787.4	14.9
Santa Catarina (SC)	1,644.4	1,975.5	20.1
Total	29,292.8	33,909.9	15.8
Total Production:	86,120.8	96,222.1	11.7

*Data based on calendar year, January-December

**Forecast, July 2015

Source: Companhia Nacional de Abastecimento (CONAB)

Soybean Production

Brazil soybean supply and distribution									
Year*	Area Harvested	Beginning Stocks	Production	Imports	Total Supply	Exports	Crush	Domestic Consumption	Ending Stocks
	1,000 hectares	----- 1,000 metric tons -----							
2002/03	18,448	981	52,000	1,124	54,105	19,987	27,796	30,220	3,898
2003/04	21,520	3,898	51,000	364	55,262	19,257	28,914	31,457	4,548
2004/05	22,917	4,548	53,000	352	57,900	22,799	29,728	32,413	2,688
2005/06	22,229	2,688	57,000	40	59,728	24,770	28,756	31,506	3,452
2006/07	20,700	3,452	59,000	108	62,560	23,805	31,511	34,261	4,494
2007/08	21,300	4,494	61,000	83	65,577	24,515	31,895	34,695	6,367
2008/09	21,700	6,367	57,800	124	64,291	28,041	30,779	33,579	2,671
2009/10	23,500	2,671	69,000	150	71,821	29,188	35,700	38,550	4,083
2010/11	24,200	4,083	75,300	40	79,423	33,789	37,264	40,164	5,470
2011/12	25,000	5,470	66,500	298	72,268	31,905	36,230	39,130	1,233
2012/13	27,700	1,233	82,000	240	83,473	42,826	36,432	39,378	1,269
2013/14	30,100	1,269	86,700	579	88,548	45,747	38,274	41,274	1,527
2014/15	31,500	1,527	94,500	400	96,427	48,000	39,215	42,365	6,062
2015/16**	32,500	6,062	97,000	450	103,512	51,300	39,500	42,700	9,512

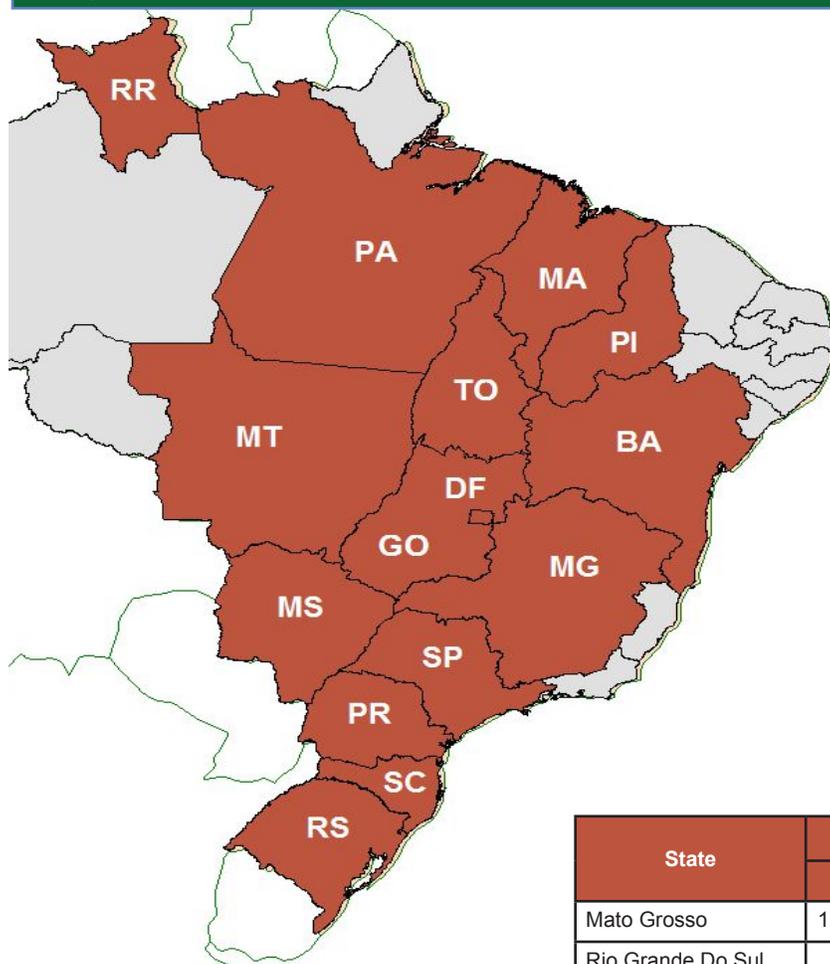
*Data based on Brazil's local February/January Marketing Year (MY)

Where February 2012 - January 2013 is the 2011/12 MY.

**Forecast: July 10, 2015

Source: USDA/Foreign Agricultural Service/Oilseeds: World Markets and Trade

Exports

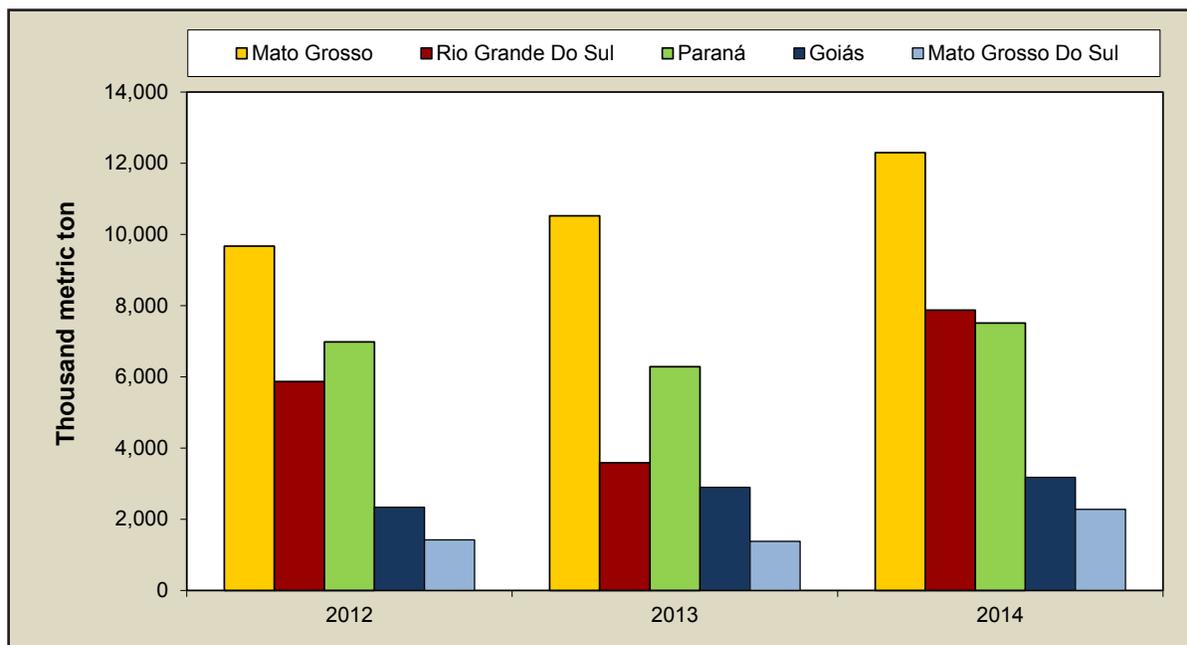


**Top 15 Brazilian
soybean exporting states**

State	2012	2013	2014	Rank
	-----metric ton-----			
Mato Grosso	10,523,396	12,295,500	14,211,027	1
Rio Grande Do Sul	3,585,648	7,872,789	7,698,506	2
Paraná	6,281,373	7,511,618	6,621,838	3
Goiás	2,897,636	3,173,837	3,323,395	4
Mato Grosso Do Sul	1,378,378	2,279,961	2,430,893	5
São Paulo	1,393,741	2,096,337	2,064,171	6
Bahia	1,732,593	1,577,862	1,725,152	7
Santa Catarina	577,840	913,282	1,629,386	8
Maranhão	1,347,228	1,319,377	1,476,770	9
Minas Gerais	835,944	1,609,655	1,418,299	10
Tocantins	796,764	875,553	1,243,223	11
Pará	323,872	450,618	642,934	13
Rondônia	481,252	548,427	608,660	12
Piauí	253,776	165,954	350,464	14
Distrito Federal	31,985	91,808	178,708	15
Others	19,988	5,882	65,424	
Total	32,461,413	42,788,462	45,688,848	

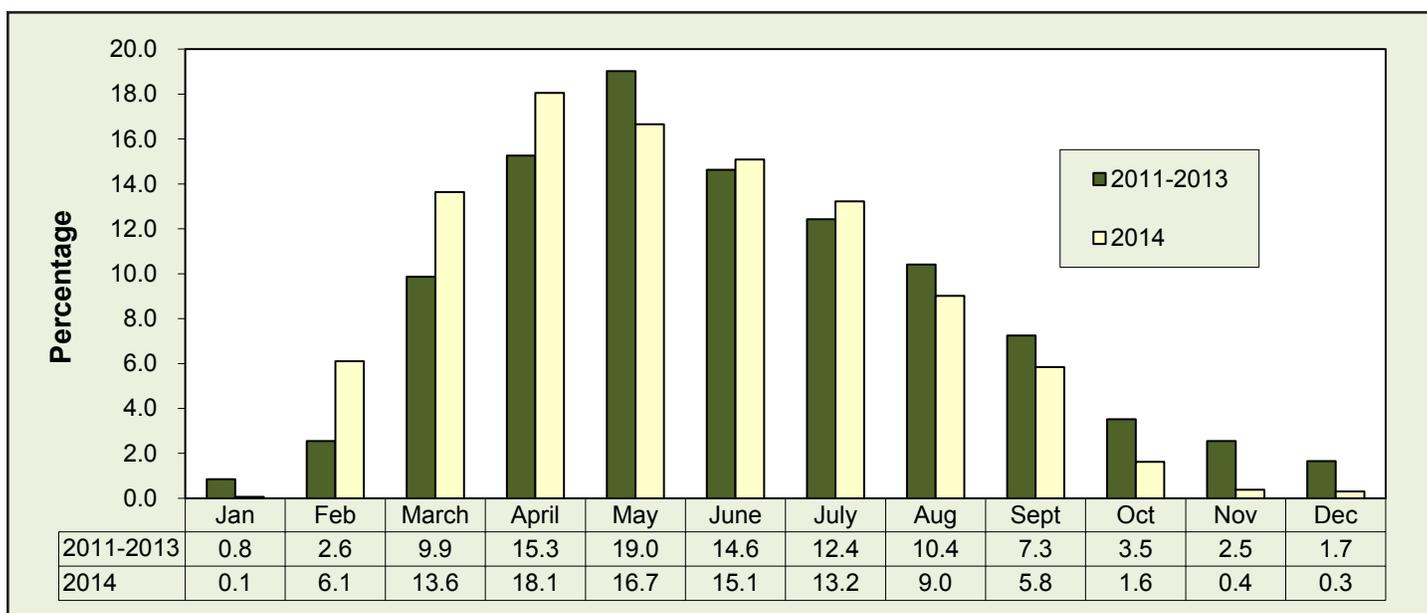
Sources: Bureau of Foreign Trade (SECEX), MDIC

Top 5 Brazil soybean exporting states



Sources: Bureau of Foreign Trade (SECEX), MDIC

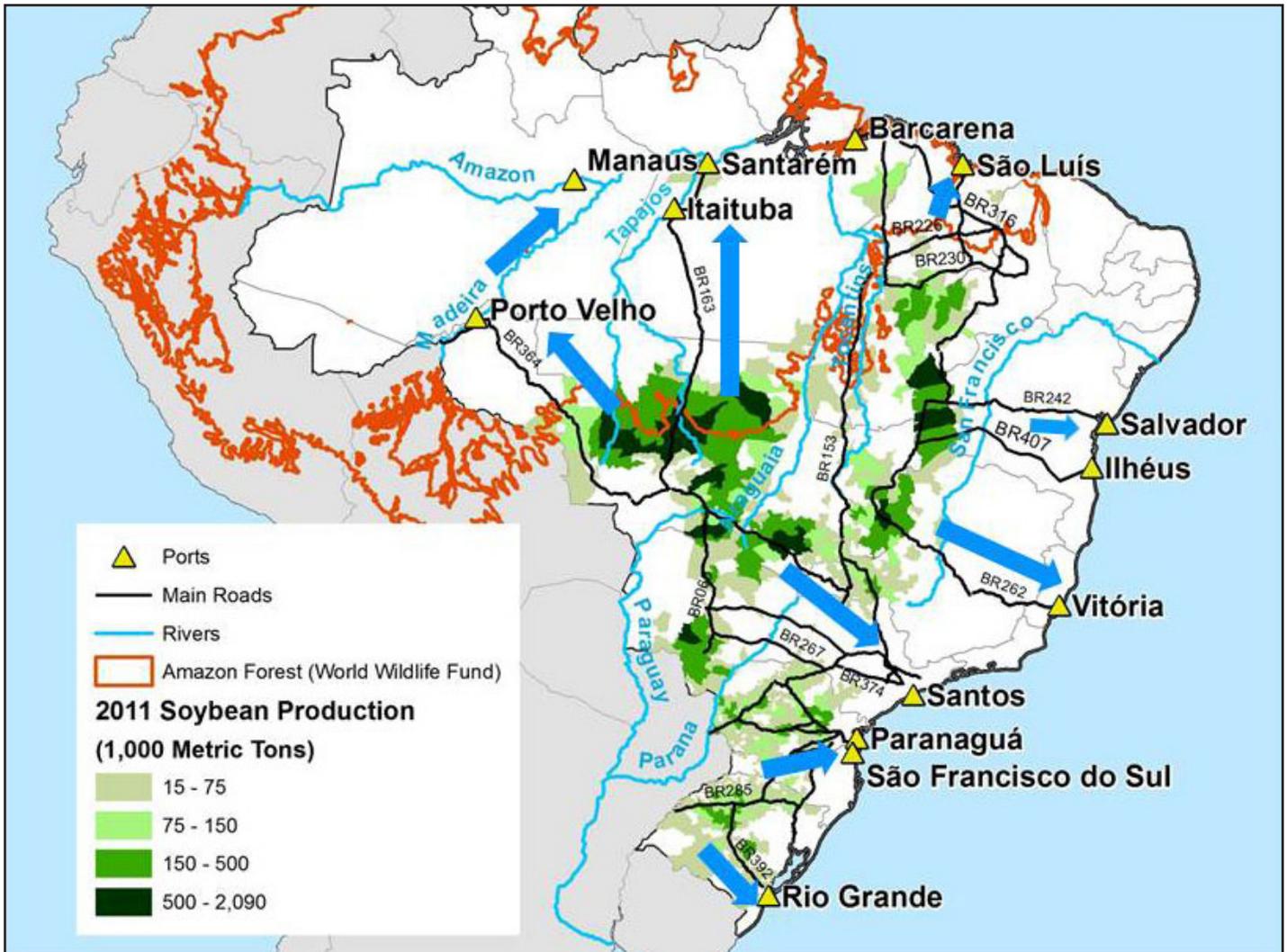
Brazil soybean average monthly exports



Sources: Bureau of Foreign Trade (SECEX), MDIC

Exports

Main export routes for soybeans

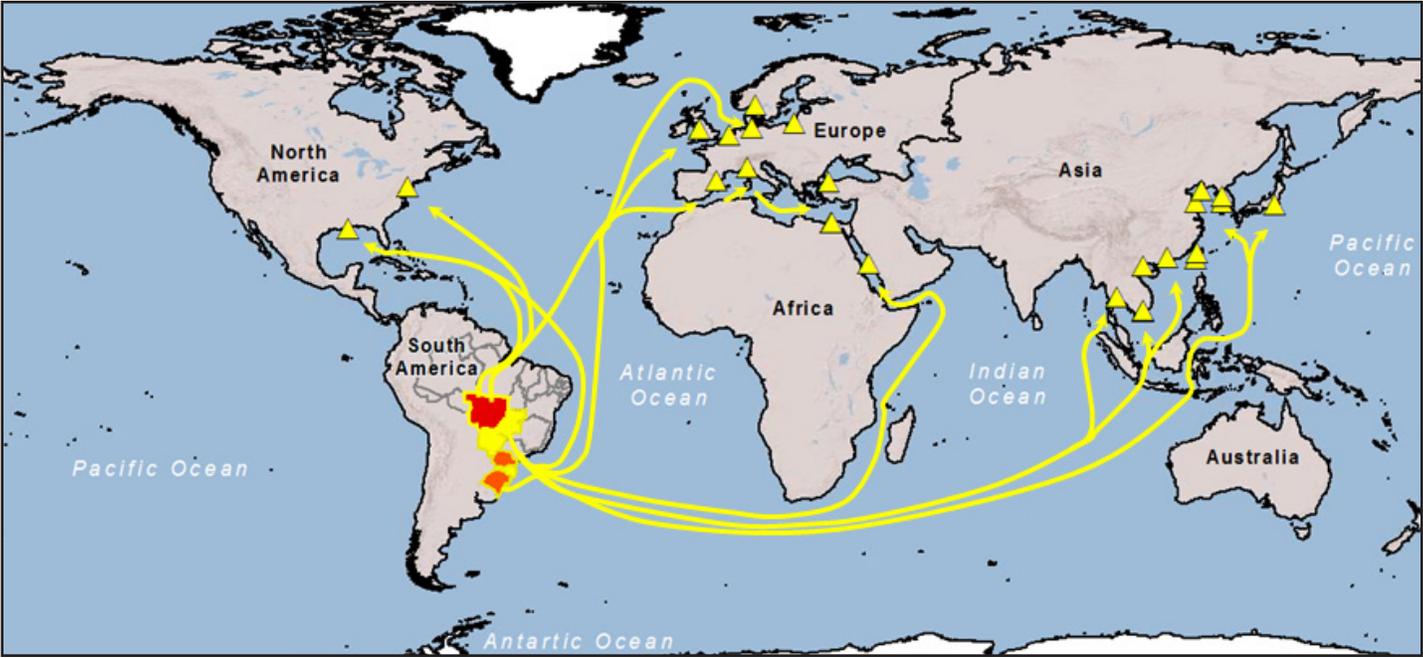


*Companhia Nacional de Abastecimento (CONAB)

**World Wildlife Fund (WWF)

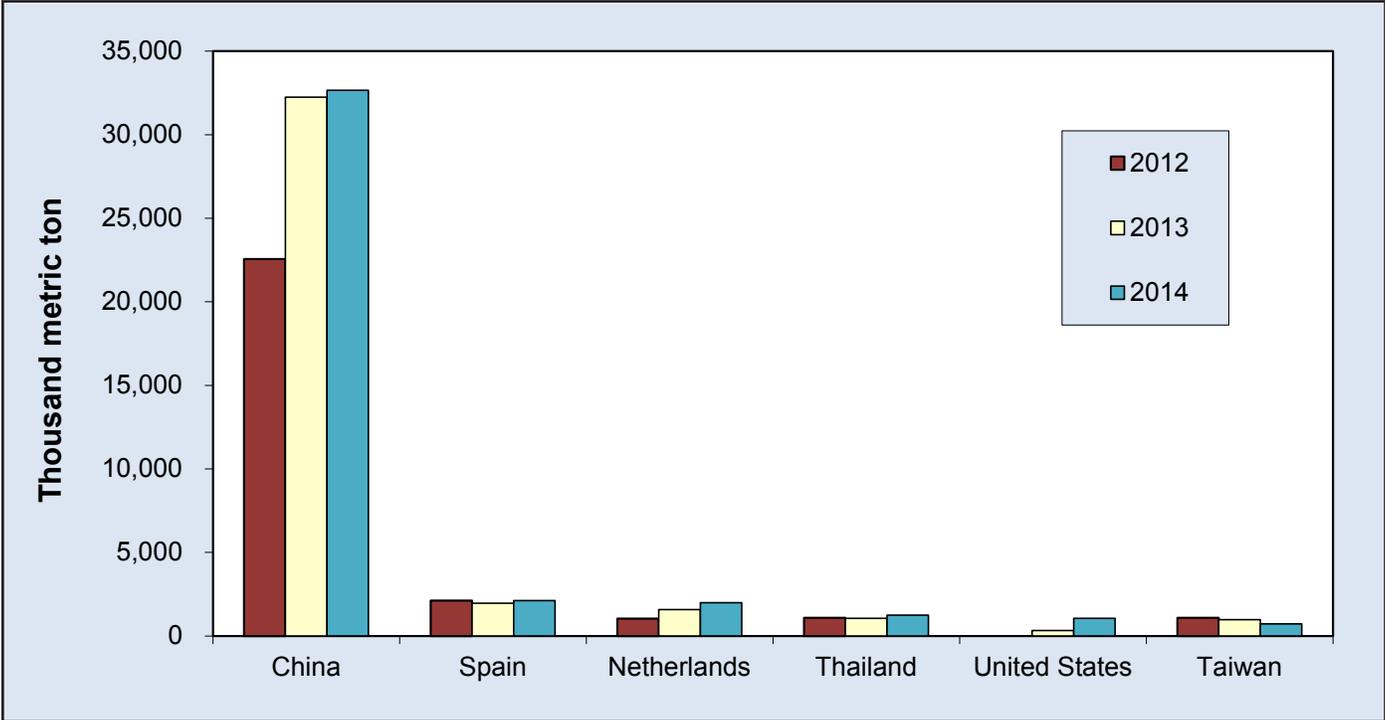
Source: USDA/Agricultural Marketing Service & Foreign Agricultural Service

World export routes for Brazilian soybeans



Source: USDA/Agricultural Marketing Service & Foreign Agricultural Service

Brazil soybeans: top 6 export destinations

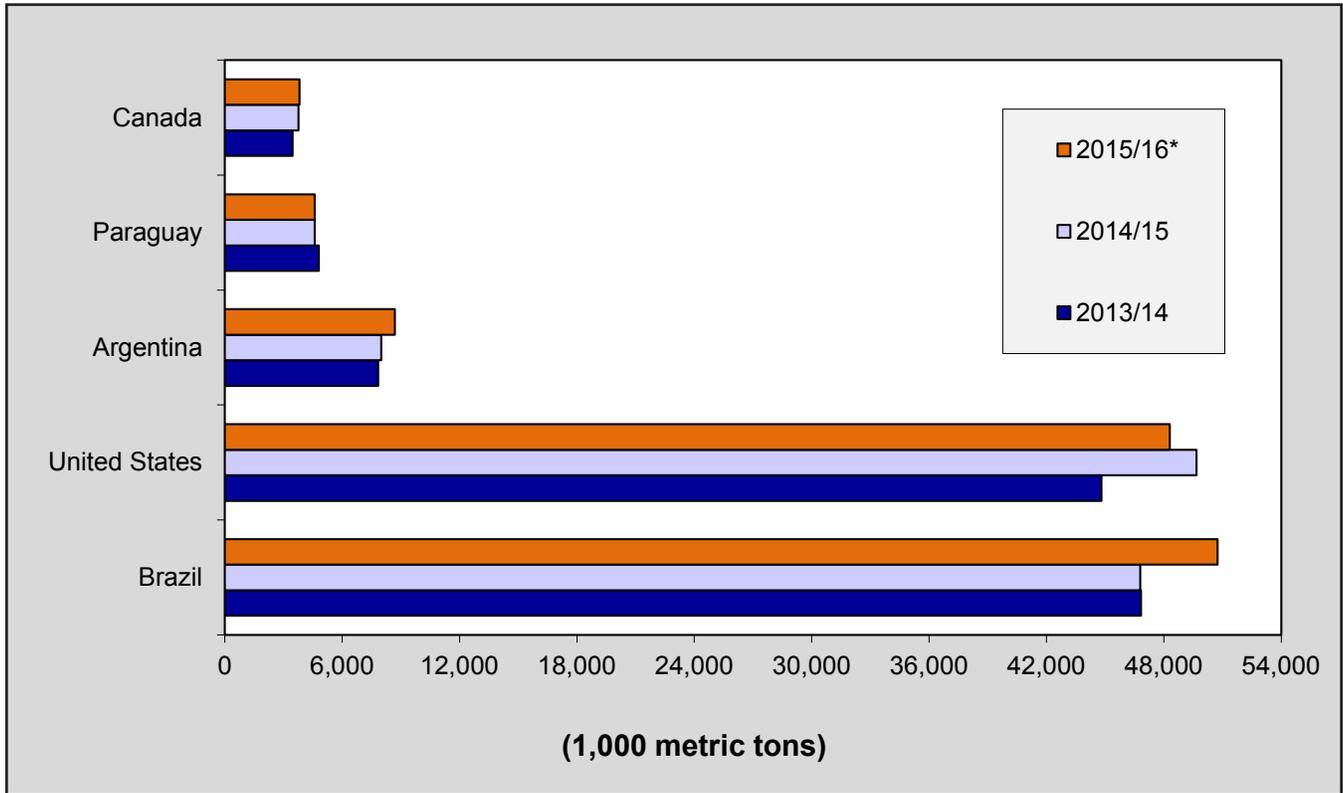


Source: Bureau of Foreign Trade (SECEX), MDIC

Exports

In 2014, the United States was the top soybean exporter followed by Brazil, Argentina, Paraguay, Canada, and Uruguay. However, USDA forecasts that Brazil will surpass the United States as the top soybean exporter in 2015.

Top 5 world soybean exporting countries

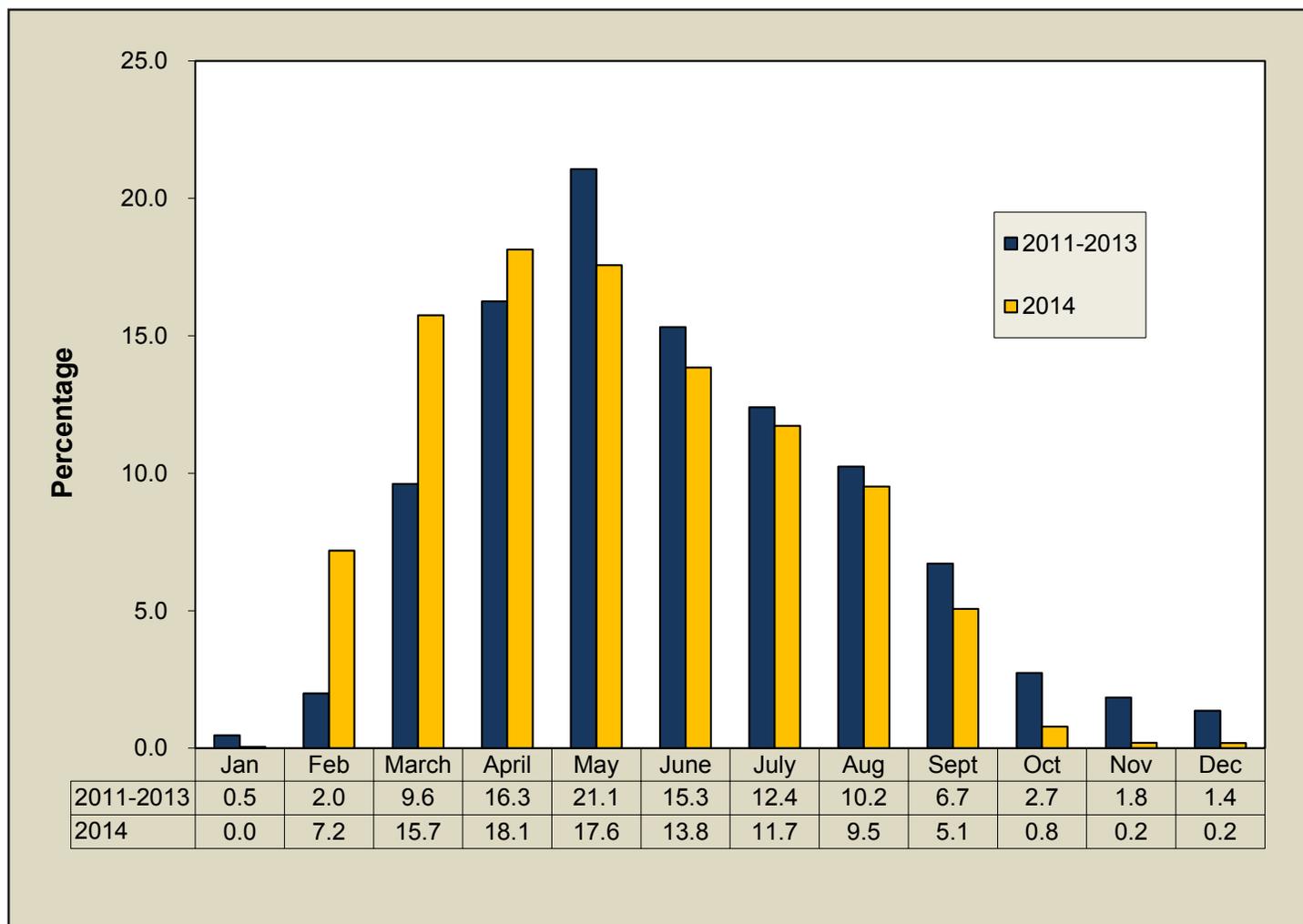


*Forecast: July 10, 2015

Source: USDA/FAS/Oilseeds: World Markets and Trade

China is Brazil's largest soybean buyer, accounting for 71 percent of total soybean exports in 2014. Brazil soybean exports to China usually peak in May and finish by the end of October. Over 90 percent of Brazil soybeans exports to China originated from Mato Grosso, Rio Grande Do Sul, Paraná, Goiás, Mato Grosso Do Sul, São Paulo, Santa Catarina, Minas Gerais, Bahia in 2014.

Brazil soybean average monthly exports to China



Source: Bureau of Foreign Trade (SECEX), MDIC

Exports to China

Top 15 Brazilian soybean exporting states to China

State	2013	2014	% share
	--- metric ton ---		
Mato Grosso	8,943,033	9,138,489	28.0
Rio Grande Do Sul	6,730,955	6,948,488	21.3
Paraná	6,252,477	5,413,726	16.6
Goiás	2,702,579	2,653,386	8.1
Mato Grosso Do Sul	1,933,002	1,885,504	5.8
São Paulo	1,723,874	1,557,665	4.8
Santa Catarina	825,098	1,378,106	4.2
Minas Gerais	1,150,535	1,116,901	3.4
Bahia	949,714	1,050,794	3.2
Tocantins	371,187	558,060	1.7
Maranhao	423,300	503,217	1.5
Piauí	69,133	186,321	0.6
Distrito Federal	87,189	134,800	0.4
Pará	64,191	99,955	0.3
Rondônia	20,488	12,619	0.04
Others	525	26,270	0.1
Espirito Santo	8,541	0	0.0
Others	3,000	0	0.0
Brazil exports to China	32,247,279	32,664,302	
Brazil total exports	42,788,462	45,688,848	

Source: Bureau of Foreign Trade (SECEX), MDIC

China's share of Brazilian soybean exports increased by 3 percent, from 69 percent in 2012 to 71 percent in 2014. Mato Grosso (MT), Brazil's largest soybean-producer-exporter State, sold 64 percent of its 2014 soybeans to China.

Top Mato Grosso (MT) soybean export destinations					
State	2012	2013	2014	% share	Rank
	China	6,907,993	8,943,033		
Spain	882,336	535,852	912,663	6.4	2
Netherlands	503,341	501,884	826,466	5.8	3
Russia	84,265	0	413,189	2.9	4
United States	0	85,490	411,871	2.9	5
Thailand	389,921	220,990	390,421	2.7	6
Norway	302,502	290,244	281,897	2.0	7
Italy	24,421	230,478	232,162	1.6	8
Turkey	1,344	74,355	224,346	1.6	9
Japan	157,229	185,616	171,622	1.2	10
United Kingdom	282,671	217,152	153,628	1.1	11
Taiwan	292,199	159,584	144,082	1.0	12
Egypt	0	0	130,967	0.9	13
South Korea	61,488	56,179	113,875	0.8	14
Saudi Arabia	84,460	71,520	115,329	0.8	15
Germany	9,671	54,268	102,592	0.7	
Vietnam	162,559	300,975	99,255	0.7	
Others	376,986	367,881	348,175	2.5	
Mato Grosso total	10,523,396	12,295,500	14,211,027	100.0	
MT % share of Brazil exports to China	30.6	27.7	28.0		
Brazil exports to China	22,558,961	32,247,279	32,664,302		
Brazil total exports	32,461,413	42,788,462	45,688,848		
China % share of Brazil total exports	69.5	75.2	71.5		

Source: Bureau of Foreign Trade (SECEX), MDIC

Exports to China

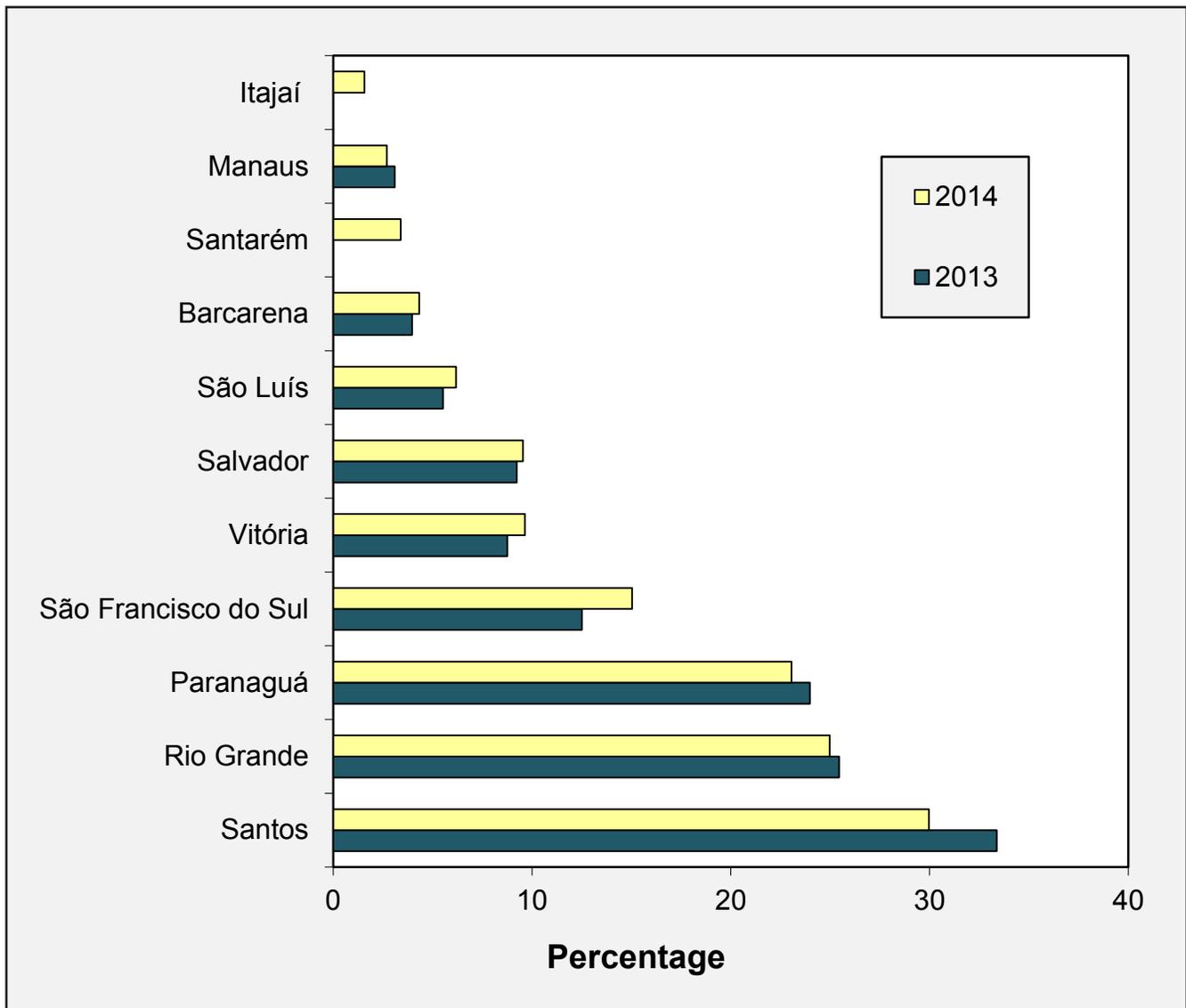
China prefers to buy soybeans from the southern ports of Santos, Paranaguá, Rio Grande, São Francisco do Sul, and Vitória via Cape of Good Hope in South Africa to Shanghai because it is cheaper than the remote ports of the Amazon River and the Northeast. For example, by buying soybeans from Santos, China saves 7-8 days in shipping costs compared to Manaus; and 2-3 days compared to Itaquí/São Luis. In 2014, these ports accounted for 91 percent of Brazil's soybean exports to China and 65 percent of Brazil's total exports. However, trade from the Southern ports of Santos, Rio Grande, and Paranaguá was diverted to the North and Northeastern ports to expedite soybean exports. These 3 ports kept their leadership position but lost 5 percent of their traditional share of Brazilian exports, accounting for 62 percent of the total, compared with 67 percent in 2013. Soybean exports to China increased in the ports of São Francisco do Sul (SC), Salvador (BA), São Luís (MA), Barcarena (PA), Santarém (PA), Manaus (AM), and Itajaí (SC).

Total Brazil soybean exports by port to China, 2011-13

Ports	2012	2013	2014	% share of exports to China			% share of Brazil total exports		
	-- metric ton --			2012	2013	2014	2012	2013	2014
Santos	8,422,734	10,764,738	9,788,795	37.3	33.4	30.0	25.9	25.2	21.4
Rio Grande	3,093,243	6,979,122	7,361,485	13.7	21.6	22.5	9.5	16.3	16.1
Paranaguá	5,189,977	6,131,941	6,112,621	23.0	19.0	18.7	16.0	14.3	13.4
São Francisco do Sul	2,570,708	3,676,475	4,107,963	11.4	11.4	12.6	7.9	8.6	9.0
Vitória	1,909,611	2,534,676	2,441,078	8.5	7.9	7.5	5.9	5.9	5.3
Subtotal	21,186,269	30,086,902	29,811,940	93.9	93.3	91.3	65.3	70.3	65.2
Others	1,372,688	2,160,325	2,852,359	6.1	6.7	8.7	4.2	5.0	6.2
Total exports to China	22,558,961	32,247,279	32,664,302	100.0	100.0	100.0	69.5	75.4	71.5
Brazil total exports	32,461,413	42,788,462	45,688,848						

Source: Bureau of Foreign Trade (SECEX), MDIC

Brazil soybean exports to China by port



Source: Bureau of Foreign Trade (SECEX), MDIC

Exports to China

Distance from selected Brazilian ports to Shanghai, China, and Hamburg, Germany

Brazilian port	Region	Route through	Destination	Nautical miles	Days at sea*
Santos, SP	South	Good Hope	Shanghai, China Hamburg, Germany	11,056 5,683	35.4 18.2
Rio Grande, RS	South	Good Hope Panama Canal Cape Horn	Shanghai, China Shanghai, China Shanghai, China Hamburg, Germany	11,129 13,564 11,397 6,204	35.7 43.5 36.5 19.9
Paranaguá, PR	South	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	11,111 13,165 5,805	35.6 42.2 18.6
São Francisco do Sul, SC	South	Good Hope	Shanghai, China Hamburg, Germany	11,111 5,805	35.8 18.6
Itajaí, SC	South	Good Hope	Shanghai, China Hamburg, Germany	13,160 7,189	42.2 23
Vitória, ES	Southeast	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	10,857 12,587 5,227	34.8 40.3 16.8
Salvador, BA	Northeast	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	10,997 12,170 4,811	35.2 39 15.4
Aratu, BA	Northeast	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	10,997 12,170 4,811	35.6 39 15.1
Itaquí/São Luís - Ponta de Madeira (MA)	Northeast	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	11,708 11,087 4,361	37.5 35.5 14
Santarém, (PA)** Reference point for Itaituba	North	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	12,305 11,200 4,750	40 36.4 15.4
Manaus, (AM)	North	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	12,880 10,926 5,283	15.4 35 16.9
Barcarena, (PA)**	North	Good Hope Panama Canal	Shanghai, China Shanghai, China Hamburg, Germany	11,905 10,950 4,510	38.9 34.5 13.7

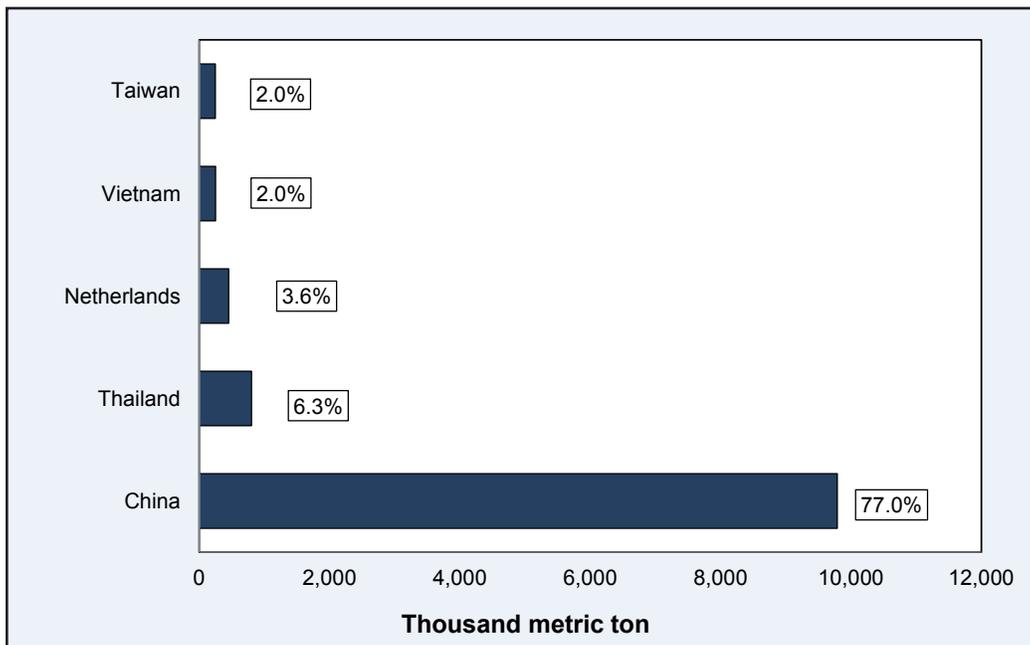
*Vessel speed: 13 knots

**Barcarena is located 49 nm from Belém; Itaituba is located 140 nm from Santarém.

Source: <http://sea-distances.com> and 1Ports.com

In 2014, China was the major destination of Brazilian soybeans through the port of Santos, Brazil's largest soybean exporting port.

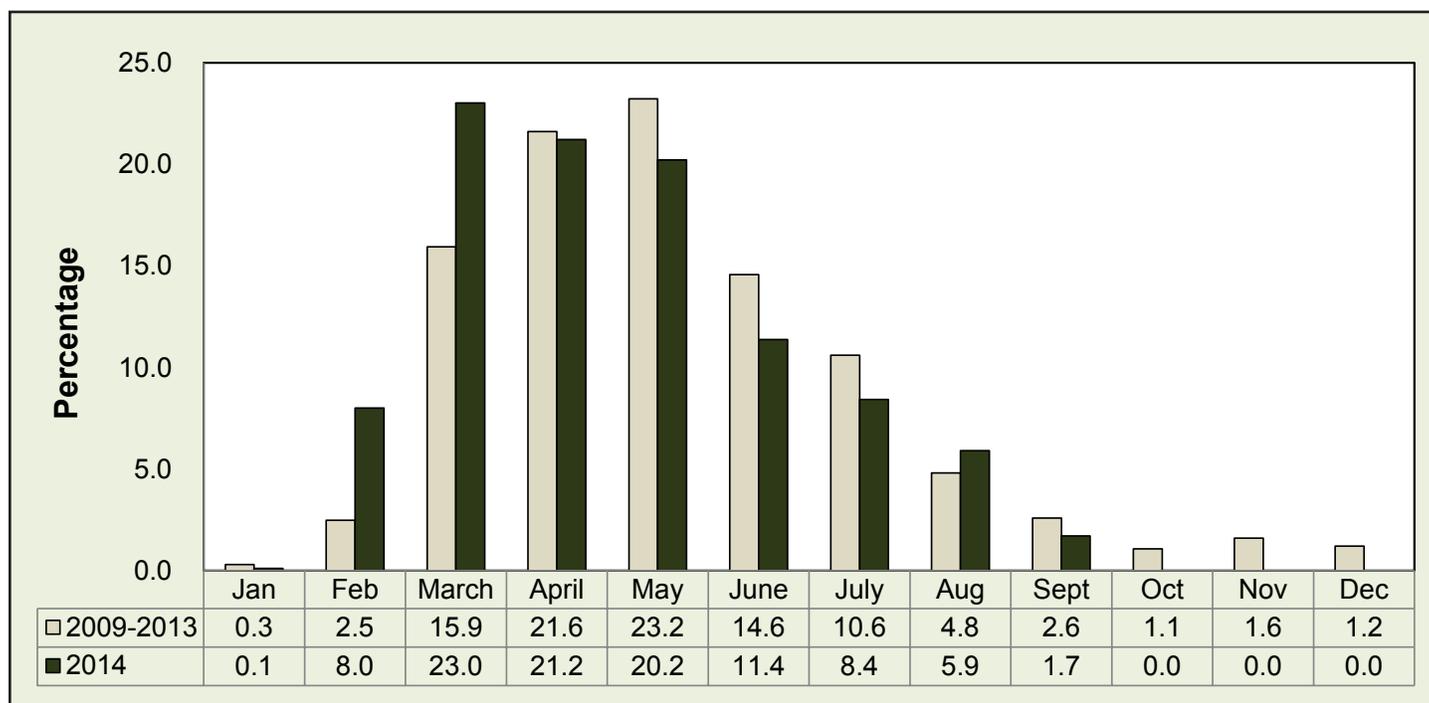
Port of Santos soybean exports by country, 2014



Source: Bureau of Foreign Trade (SECEX), MDIC

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

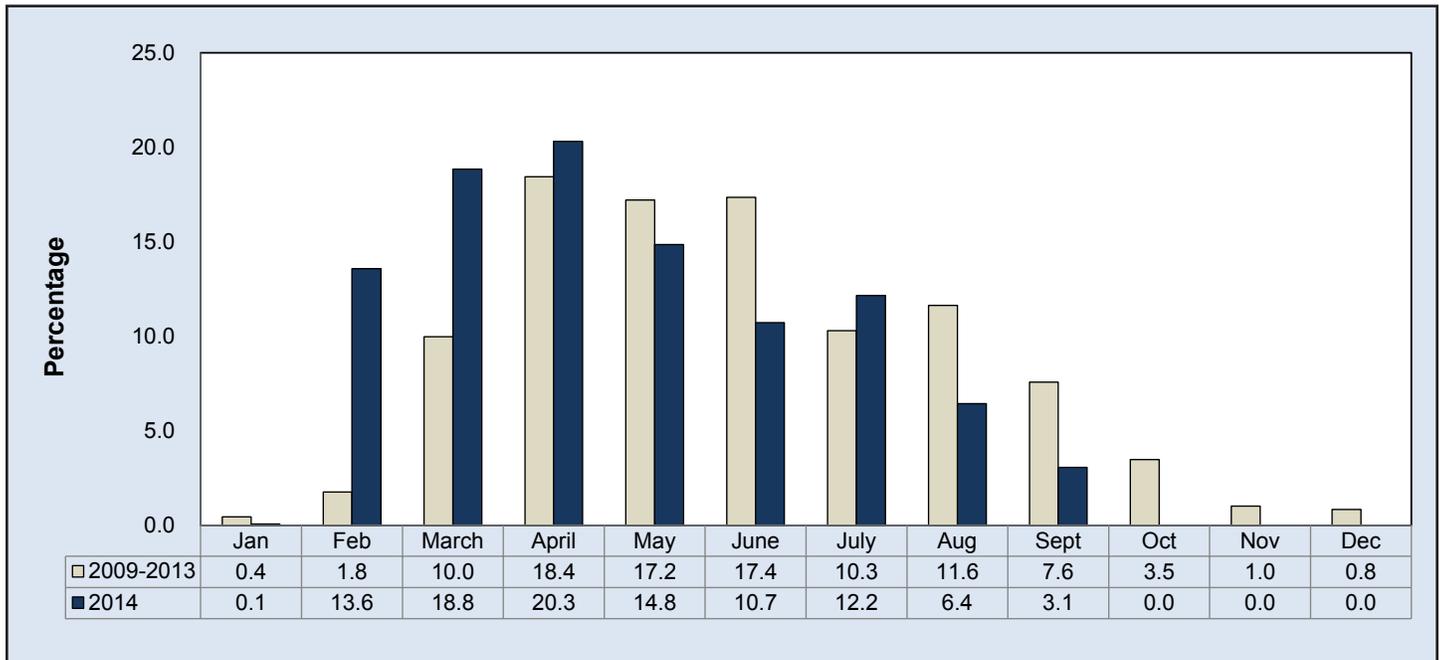
Port of Santos soybean average monthly exports to China



Source: Bureau of Foreign Trade (SECEX), MDIC

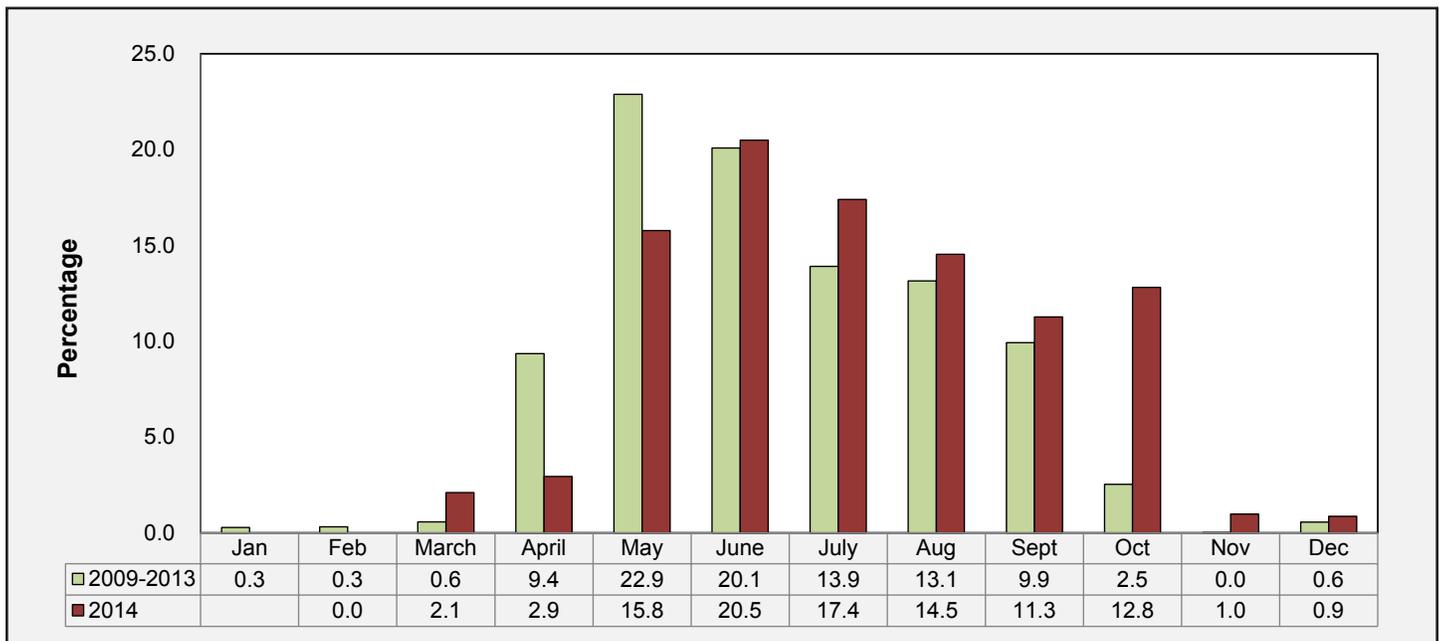
Exports to China

Port of Paranaguá soybean average monthly exports to China



Source: Bureau of Foreign Trade (SECEX), MDIC

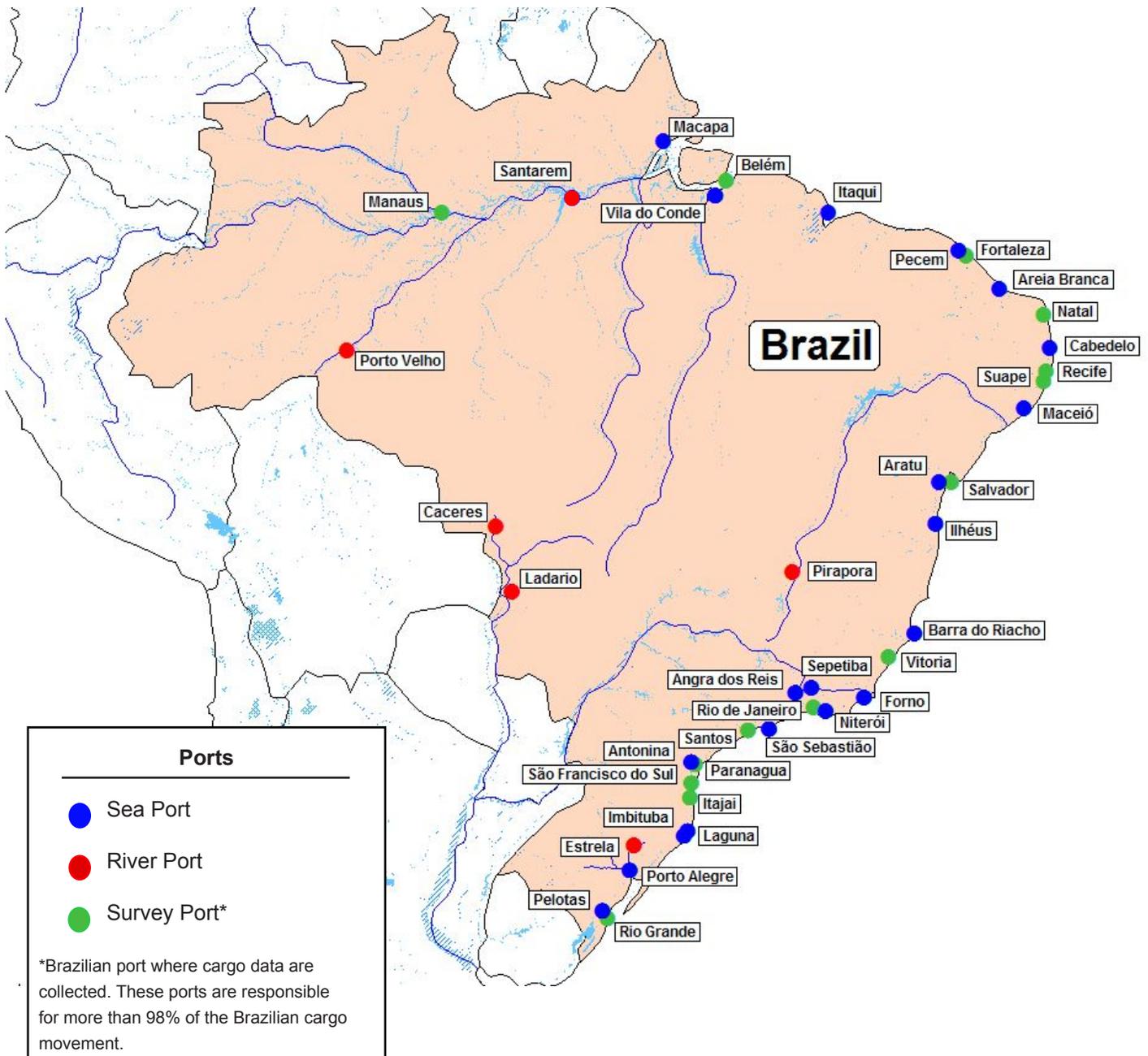
Port of Rio Grande soybean average monthly exports to China



Source: Bureau of Foreign Trade (SECEX), MDIC

Brazilian ports

In Brazil, 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, Santarém and Manaus, 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

Transportation Modes

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 are 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 river system

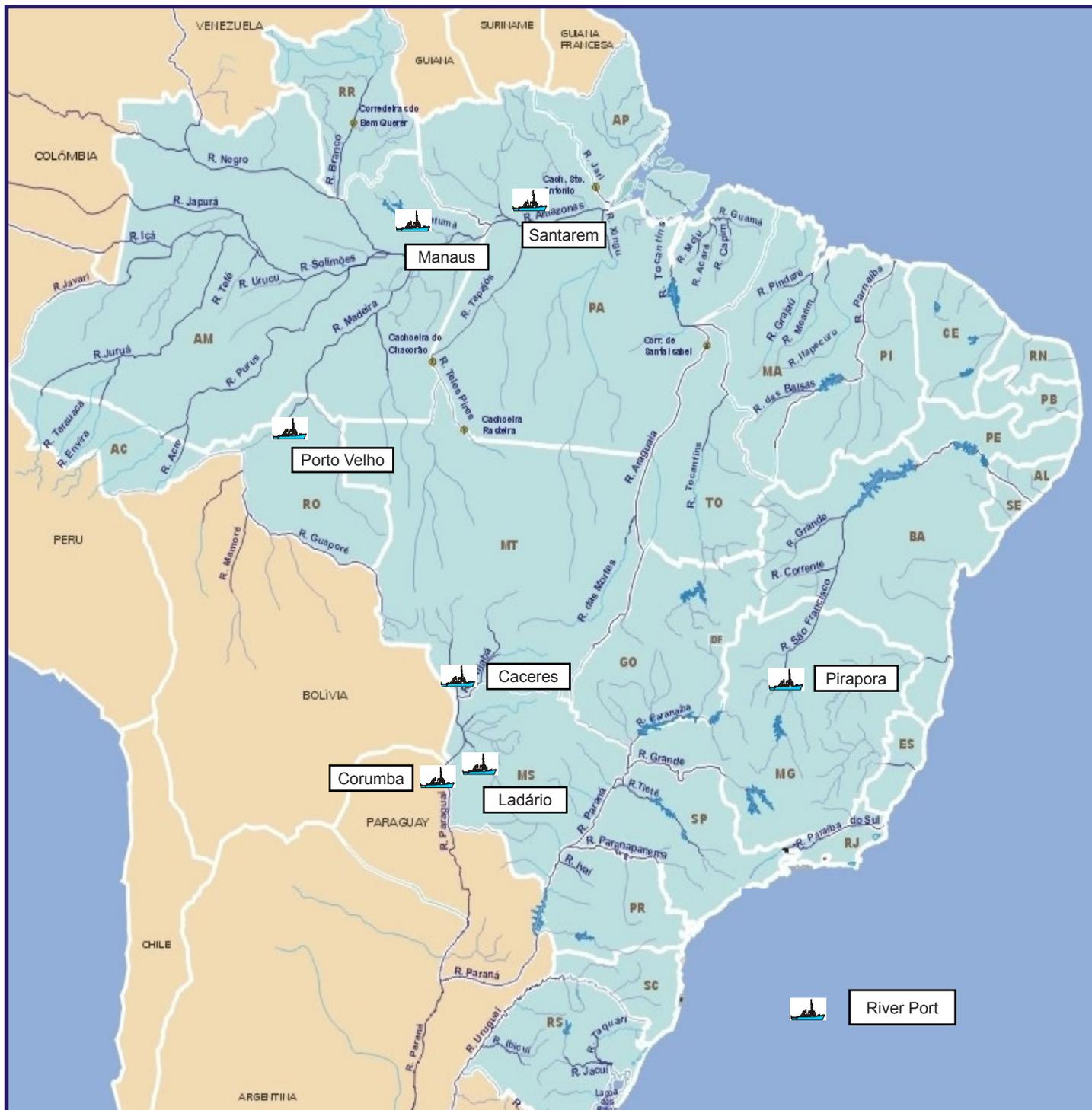


Source: National Agency for Waterway Transportation (ANTAQ)

Transportation Modes

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.



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

Transportation Modes

Brazilian multimodal transportation system



Source: Agência Nacional de Transportes Aquavários

Major Brazilian highways



Source: Confederação Nacional do Transporte

Transportation Modes

The Brazilian highway system extends 1,066,776 miles (1,720,607 kilometers), with only 14 percent paved. The United States public roads system consists of 4,115,462 miles (6,623,178 kilometers), with 65 percent paved.

Brazil highway system extension in miles, 2014			
	Paved roads	Unpaved roads	Total
Federal	41,362	7,853	49,214
State	74,208	65,472	139,681
County	16,633	765,649	782,282
Work in progress	-	-	95,599
Total	132,203	838,975	1,066,776
% share	14	86	

Source: Confederação Nacional do Transporte (CNT)

U.S. highway system extension and condition, 2013			
Extension ¹ (miles)		Condition ²	
		Paved	Unpaved
Rural	2,937,476	54	46
Urban	1,177,986	94	6
Total	4,115,462	65	35

¹Table HM-20 Public road length in 2013. Includes the States and the District of Columbia. October 21, 2014.

²Includes the 50 States and the District of Columbia. Some differences from other tables may be noted because these are estimated from sample and summary data; some States may have missing/incomplete data. Table HM-12 Public road length -2013 by type of surface and ownership/functional system. October 21, 2014. Source: Highway Statistics 2013. U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (Washington, DC: Annual Issues) <http://www.fhwa.dot.gov/policyinformation/statistics/2013/>

Brazilian highways condition classification



Source: Confederação Nacional do Transporte

Brazilian public highways



Source: Confederação Nacional do Transporte

Brazilian private highway conditions



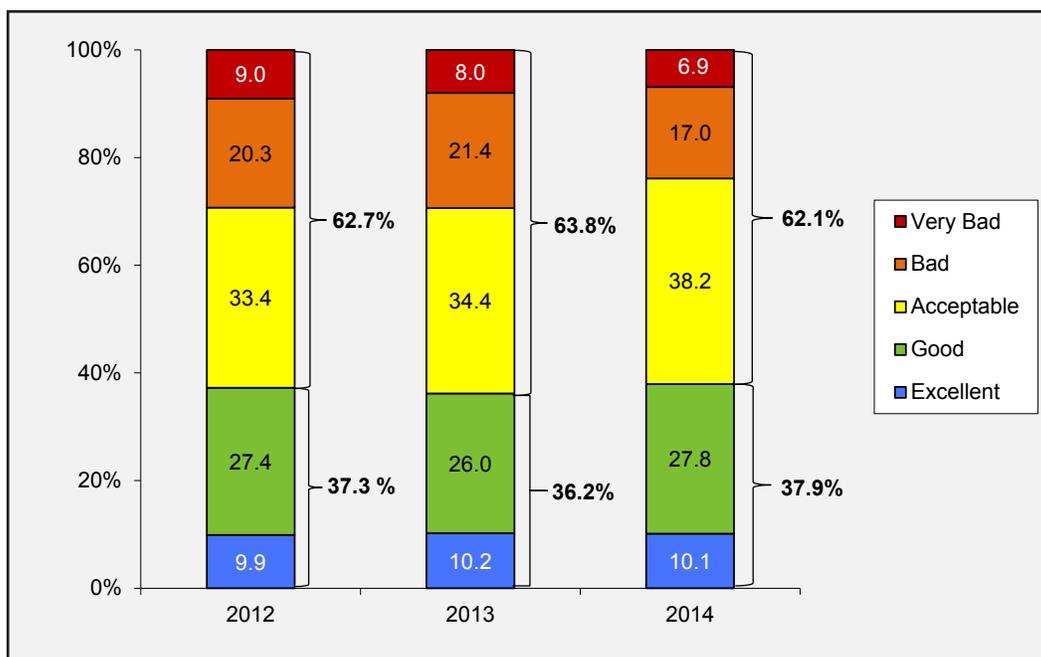
Source: Confederação Nacional do Transporte

Transportation Modes

Brazilian highways

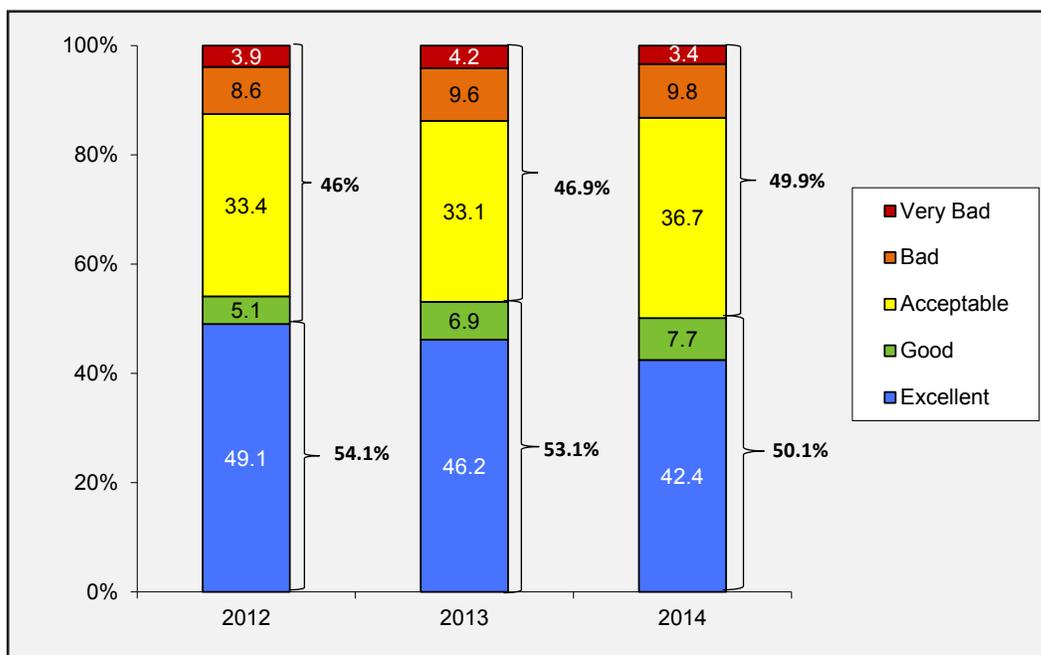
The 2014 Confederação Nacional do Transporte (CNT) survey of the overall highway condition in Brazil shows that 37.9 percent of the roads ranged between good to excellent in 2014, compared to 37.3 percent in 2011. Still, 62.1 percent ranged from acceptable to inadequate. The survey also shows that nearly half of the paved roads were in good to excellent and about 50 percent ranged from acceptable to very bad condition; 57.4 percent of traffic road signs had problems; and 87.1 percent of the paved roads evaluated are two lane. The survey sample of paved roads increased about 1 percent from 59,963 miles in 2013 to 61,055 miles in 2014.

Brazilian highway conditions, 2012-2014



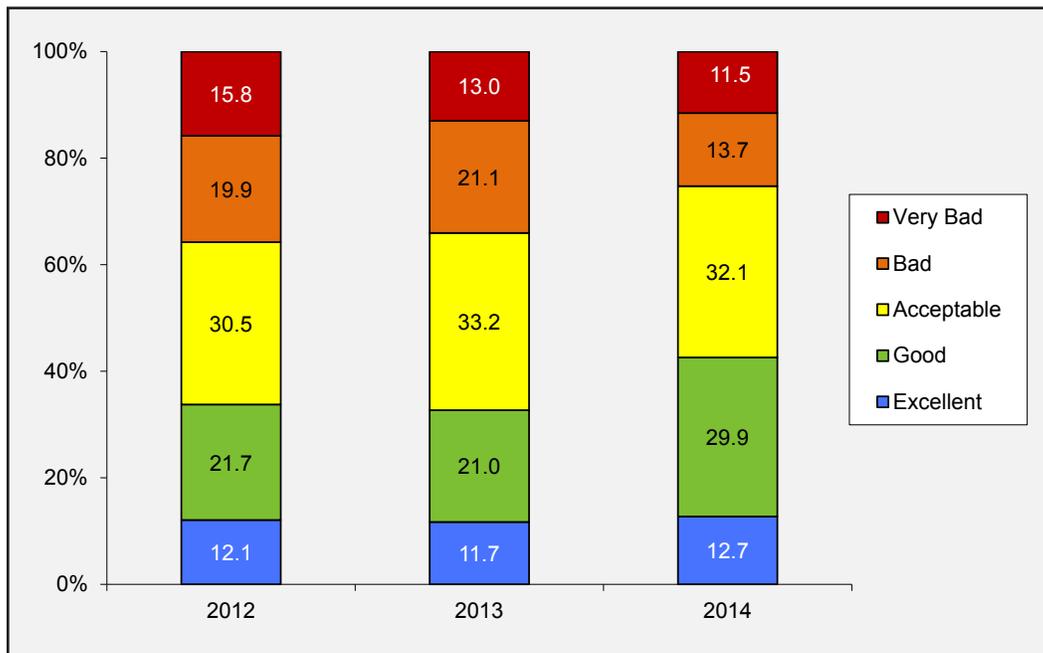
Source: Confederação Nacional do Transporte (CNT)

Brazilian paved highway conditions, 2012-2014



Source: Confederação Nacional do Transporte (CNT)

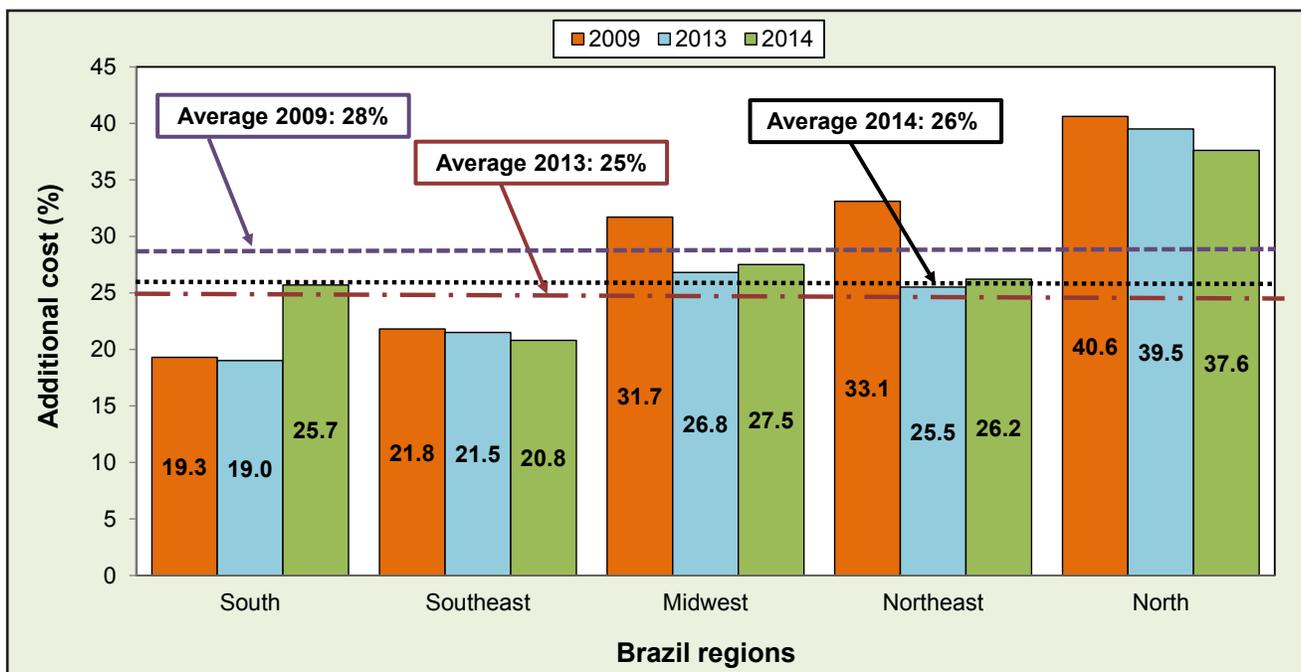
Brazilian road sign conditions, 2012-2014



Source: Confederação Nacional do Transporte (CNT)

The CNT estimates that due to the poor conditions of the paved roads, the 2014 marginal operational cost of cargo trucks is 26 percent higher than a paved road under optimal conditions. Overall, the 2014 additional operational cargo cost (26 percent) was lower than 2009 (28 percent) and slightly higher 2013 (25 percent). This cost increased significantly in the South. For example, if the cost of shipping a metric ton of soybeans from Sorriso, North MT to Santos is \$100/mt. According to CNT, the 2013 optimal cost should be \$74/mt.

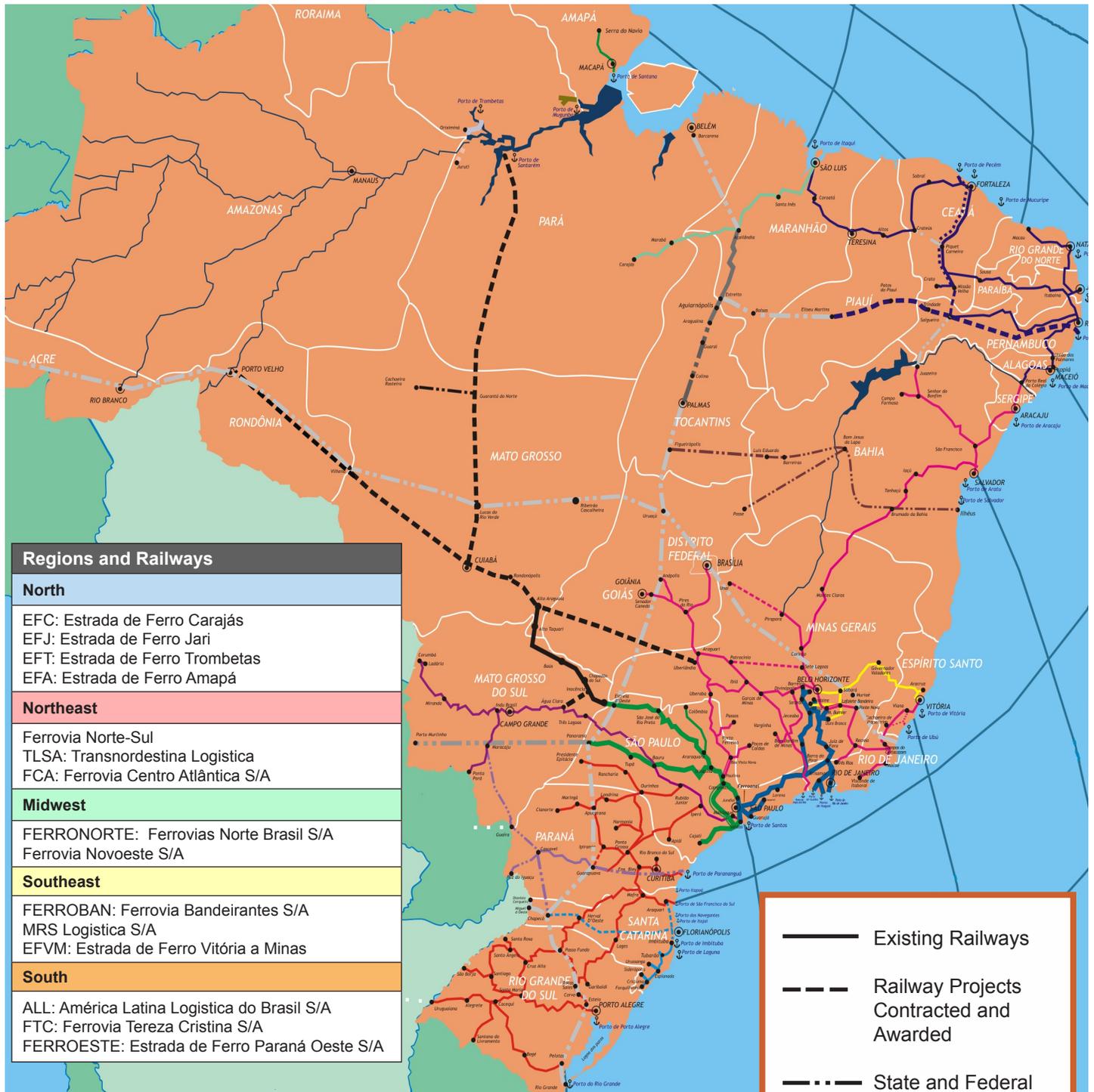
Cost increases due to road pavement conditions, 2009-2014



Source: Confederação Nacional do Transporte (CNT)

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)

Reference Material

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
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	91,470	397	95,628	40,798	47,673	50,724	4,106
2010/11	31,003	4,106	90,663	393	95,162	40,959	44,851	48,351	5,852
2011/12	29,856	5,852	84,291	439	90,582	37,156	46,348	48,816	4,610
2012/13	30,814	4,610	82,791	1,103	88,504	35,846	45,967	48,833	3,825
2013/14	30,858	3,825	91,389	1,951	97,165	44,815	47,192	49,846	2,504
2014/15	33,614	2,504	108,014	817	111,335	49,668	49,804	54,727	6,940
2015/16**	34,175	6,940	105,732	816	113,488	48,308	50,077	53,600	11,580

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

**Forecast, July 10, 2015

Source: USDA/Foreign Agricultural Service/Oilseeds: World Markets and Trade

Soybean production (1,000 metric tons)

Country*	2011/12	2012/13	2013/14	2014/15	2015/16**
United States	84,291	82,791	91,389	108,014	105,732
Brazil	66,500	82,000	86,700	94,500	97,000
Argentina	40,100	49,300	53,500	60,000	57,000
China	14,485	13,050	12,200	12,350	11,500
India	11,700	12,200	9,500	9,800	11,500
Paraguay	4,043	8,202	8,190	8,400	8,800
Canada	4,467	5,086	5,359	6,050	6,200
Other	14,841	16,195	16,405	19,489	21,191
Total	240,427	268,824	283,243	318,603	318,923

*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 10, 2015

Source: USDA/ Foreign Agricultural Service/Oilseeds: World Markets and Trade

Soybean imports (1,000 metric tons)					
Country*	2011/12	2012/13	2013/14	2014/15	2015/16**
China	59,231	59,865	70,364	74,000	77,500
European Union	12,070	12,538	12,985	12,950	13,100
Mexico	3,606	3,409	3,842	4,025	4,050
Japan	2,759	2,830	2,894	2,900	2,850
Indonesia	2,285	2,286	2,335	2,350	2,380
Taiwan	1,922	1,795	2,241	2,150	2,300
Thailand	1,907	1,867	1,798	2,075	2,100
Turkey	1,057	1,249	1,608	1,950	2,100
Egypt	1,649	1,730	1,694	1,880	1,950
Russia	741	691	1,931	1,900	1,800
Other	6,226	7,645	9,582	9,731	10,642
Total	93,453	95,905	111,274	115,911	120,772

*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 10, 2015

Source: USDA/ Foreign Agricultural Service/Oilseeds: World Markets and Trade

Soybean exports (1,000 metric tons)					
Country*	2011/12	2012/13	2013/14	2014/15	2015/16**
Brazil	36,257	41,904	46,829	46,800	50,750
United States	37,156	35,846	44,815	49,668	48,308
Argentina	7,368	7,738	7,842	8,000	8,700
Paraguay	3,574	5,518	4,800	4,600	4,600
Canada	2,933	3,470	3,471	3,775	3,825
Other	4,869	6,058	5,136	6,646	7,158
Total	92,157	100,534	112,893	119,489	123,341

*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 10, 2015

Source: USDA/ Foreign Agricultural Service/Oilseeds: World Markets and Trade

Reference Material

Soybean crush (1,000 metric tons)					
Country*	2011/12	2012/13	2013/14	2014/15	2015/16**
China	60,970	64,950	68,850	74,200	77,300
United States	46,348	45,967	47,192	49,804	50,077
Argentina	35,886	33,611	36,173	38,775	41,500
Brazil	38,083	35,235	36,861	39,300	39,500
European Union	12,414	13,162	13,400	13,750	14,100
India	9,650	9,900	8,300	7,400	9,100
Mexico	3,675	3,650	4,030	4,275	4,350
Paraguay	900	2,950	3,350	3,700	4,100
Russia	2,300	2,400	3,300	3,850	3,950
Bolivia	2,000	2,175	2,250	2,300	2,420
Taiwan	2,020	1,920	1,925	1,970	2,000
Japan	1,960	1,915	1,969	2,050	1,970
Egypt	1,620	1,710	1,680	1,850	1,950
Canada	1,411	1,550	1,537	1,675	1,700
Thailand	1,750	1,500	1,500	1,600	1,700
Other	7,296	7,577	8,943	11,005	12,367
Total	228,283	230,172	241,260	257,504	268,084

*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 10, 2015

Source: USDA/ Foreign Agricultural Service/Oilseeds: World Markets and Trade

Soybean ending stocks (1,000 metric tons)					
Country*	2011/12	2012/13	2013/14	2014/15	2015/16**
Argentina	15,949	20,962	26,050	34,275	35,977
Brazil	13,024	15,330	15,945	21,595	25,565
China	15,909	12,378	14,427	14,552	13,902
United States	4,610	3,825	2,504	6,940	11,580
India	232	178	282	607	925
Other	4,405	3,675	3,519	3,708	3,854
Total	54,129	56,348	62,727	81,677	91,803

*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, May July 10, 2015

Source: USDA/ Foreign Agricultural Service/Oilseeds: World Markets and Trade

Quarterly costs of transporting U.S. soybeans to Hamburg, Germany, and Shanghai, China

	2014					2014				
	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	13.79	14.59	11.70	12.06	13.04	13.79	14.59	11.70	12.06	13.04
Rail ¹	42.08	-	-	-	42.08	30.77	-	-	-	30.77
Barge ²	27.06	30.43	41.96	50.36	37.45	27.06	22.05	34.42	47.68	32.80
Ocean ³	23.40	19.40	19.32	18.83	20.24	23.40	19.40	19.32	18.83	20.24
Total transportation	106.33	64.42	72.98	81.25	81.25	95.02	56.04	65.44	78.57	73.77
Farm price ⁴	475.22	522.99	455.62	368.05	455.47	485.02	531.56	445.82	369.89	458.07
Landed cost	581.55	587.41	528.60	449.30	536.72	580.04	587.60	511.26	448.46	531.84
Transport % of landed cost	18.3	11.0	13.8	18.1	15.3	16.4	9.5	12.8	17.5	14.1
	To Shanghai, China (via U.S. Gulf)									
	Minneapolis, Minnesota --US\$/mt--					Davenport, Iowa --US\$/mt--				
Truck	13.79	14.59	11.70	12.06	13.04	13.79	14.59	11.70	12.06	13.04
Rail ¹	42.08	-	-	-	42.08	30.77	-	-	-	30.77
Barge ²	27.06	30.43	41.96	50.36	37.45	27.06	22.05	34.42	47.68	32.80
Ocean ³	52.39	44.90	42.93	42.64	45.72	52.39	44.90	42.93	42.64	45.72
Total transportation	135.32	89.92	96.59	105.06	106.72	124.01	81.54	89.05	102.38	99.25
Farm price ⁴	475.22	522.99	455.62	368.05	455.47	485.02	531.56	445.82	369.89	458.07
Landed cost	610.54	612.91	552.21	473.11	562.19	609.03	613.10	534.87	472.27	557.32
Transport % of landed cost	22.2	14.7	17.5	22.2	19.1	20.4	13.3	16.6	21.7	18.0
	To Shanghai, China (via PNW)									
	Fargo, ND --US\$/mt--					Sioux Falls, SD --US\$/mt--				
Truck	13.79	14.59	11.70	12.06	13.04	13.79	14.59	11.70	12.06	13.04
Rail ¹	59.11	59.56	59.31	58.76	34.74	60.65	61.16	60.88	60.26	34.74
Ocean ³	26.38	24.08	23.48	22.91	24.21	26.38	24.08	23.48	22.91	24.21
Total transportation	99.28	98.23	94.49	93.73	96.43	100.82	99.83	96.06	95.23	97.99
Farm price ⁴	460.52	477.67	398.06	351.39	421.91	469.09	509.51	422.31	350.66	437.89
Landed cost	559.80	575.90	492.55	445.12	518.34	569.91	609.34	518.37	445.89	535.88
Transport % of landed cost	17.7	17.1	19.2	21.1	18.8	17.7	16.4	18.5	21.4	18.5

¹Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary rail markets, which could exceed the rail tariff rate plus fuel surcharge shown in the table.

²The Mississippi River closes from Minneapolis to just north of St. Louis during 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.

³Source: The Baltic Exchange and O'Neil Commodity Consulting; Excludes handling charges

⁴Source: USDA/NASS/Quick Stats database

Reference Material

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\$	2.1974	2.1879	2.1711	2.1520	2.1771	2.1085	1.9818	1.9175	1.7861	1.9485	1.7379	1.6560	1.6674	2.2766	1.8345	
	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	1st qtr	2nd qtr	3rd qtr	4th qtr	2013	1st qtr	2nd qtr	3rd qtr	4th qtr	2014	
Real per US\$	1.7701	1.9641	2.0288	2.0576	1.9551	1.9977	2.0673	2.2880	2.2735	2.1566	2.2735	2.2296	2.2745	2.5437	2.3303	

Source: Banco Central do Brasil

Selected quarterly Brazilian farm prices (US\$/metric ton)*				
Year	Rio Grande do Sul	Mato Grosso	Goiás	Paraná
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
2013				
1st qtr	460.13	419.35	445.56	476.22
2nd qtr	459.96	391.58	419.62	461.97
3rd qtr	448.29	404.93	405.90	453.28
4th qtr	458.54	426.00	442.20	481.71
Average	456.73	410.46	428.32	468.29
2014				
1st qtr	482.75	375.58	420.52	463.81
2nd qtr	464.19	417.02	441.74	471.00
3rd qtr	455.08	398.98	394.07	416.92
4th qtr	368.05	361.74	349.62	383.90
Average	442.52	388.33	401.49	433.91

Source: Companhia Nacional de Abastecimento (CONAB)

Major river system corridors



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

Photo Credits



Soybean Transportation Guide: Brazil 2014

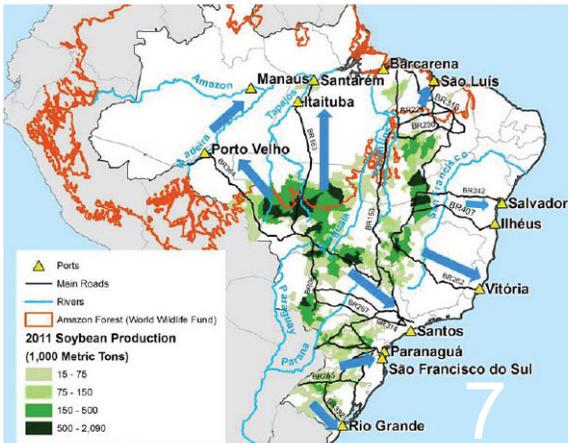


Photo credits, reading clockwise from the top left of the cover:

- 1) Escola Superior de Agricultura “Luiz de Queiroz”/ Grupo de Pesquisa e Extensão em Logística Agroindustrial (ESALQ-log)
- 2) USDA
- 3) USDA
- 4) The Assesoria de Comunicação dos Portos de Paranaqua e Antonina (ASSCOM-APPA)
- 5) ESALQ-log
- 6) ESALQ-log
- 7) USDA

Soybean Transportation Guide: Brazil 2014