Rosario terminals able to receive and unload 19 thousand trucks with grain per day

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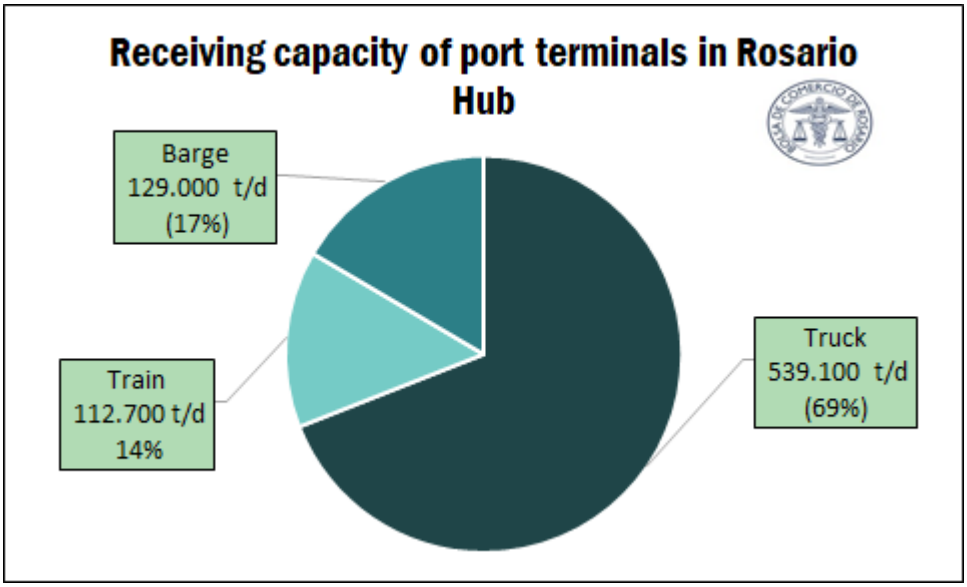
The port terminals in Rosario export hub have a daily receiving capacity of 539,100 tons of goods by truck, 129,000 t by barge and 112,700 t by railway.

In previous reports, we analysed the capacity of Rosario city hub terminals for shipping grains and their by-products in transoceanic vessels that take them to our export destinations. In that report, we could see how, from the impressive port node of the area, more than the combined total national production of grain, oils, meals and remaining products of the agribusiness complexes could be shipped per year. In the present report we will focus on the other side of the transport logistics of these products, that is to say, on the capacities of the terminals and industrial plants for receiving the goods from the domestic productive areas.

The great affluence of grains arriving in Rosario generates in the members of the agribusiness chain the need to count on a well-oiled system of transport logistics that guarantees the order of the activities and provides solutions to the needs of the producers as well as those of the exporters and industrials. The shipping routes of goods in our country are basically three: road transport by truck, river transport by barge and rail transport by train. Each of them has their own characteristics, and their own virtues and complexities.



The port terminals in Rosario city hub have a daily receiving capacity of 539,100 tons of goods by truck, 129,000 t by barge and 112,700 t by railway. In terms of participation, it is evident that road transportation to port facilities is predominant. 69%

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of the capacity of reception of goods is through facilities for heavy vehicles, 17% of the infrastructure is for the reception barges, and 14%, for receiving goods via railway. It is important to clarify that this estimation derives from assuming facilities that are operational 24 hours a day, at top capacity and at their maximum efficiency. Although this assumption may be difficult to put into practice, it gives and idea of the potential of the area for receiving goods, and of the sub utilization of the installed capacity of facilities in shippings by train and barge.

In a good harvest year, over 70 million tons of grains and by-products can arrive in Rosario through different means of transport. In 2020, according to our estimations, almost 1,900,000 trucks, 215,000 railway wagons, and 5,600 barges arrived in the plants and terminals of the area. We need not forget that 2020 was a particular year, due to the inconveniences generated by the COVID-19 pandemics and the extraordinary shallowness of the Paraná river.

Ports and factories of the Rosario City Hub. Argentina. Estimation of the movement of grains, oils and by-products in the area

	2020	2019	2020 vs 2019
Grains, oils and by-productos arrived to ports of Rosario City Hub by Train	10,11	10,29	-2%
Argentinian grains that arrived to Rosario City Hub by Barges	0,57	0,24	136%
Grains, oils and by-productos, from a national o foreign origin, arrived to ports of Rosario City Hub by Barges	8,42	4,04	109%
Argentinian grains that arrived to Rosario City hub by Truck	52,75	62,55	-16%
Total goods, from national and foreing origin, that arrives to the Rosario City Hub in a year*	73,06	77,33	-6%

@BCRmercados. (*) Total is not the Sum of the previous, because there are variables without desagregation

According to our own estimations, during 2020, near 65.2 million tons of grain of Argentinian origin arrived through all the routes in the factories and ports of Rosario for their processing in the plants of the area or for their unprocessed export. If we add the total of domestic and foreign (Bolivia-Paraguay) goods that entered Rosario city hub through different means of transport (truck, railway and barge), we can see that in 2020 almost 73 million tons of grain, oils and by-products arrived in Rosario.

Reception capacity by truck

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As we have seen earlier, the main mode of transport of the agricultural products arriving in Rosario city is by truck. For that reason, all the terminals in the area have proper facilities for receiving, parking and unloading trucks of various types.

Only in 2020, 1,883,938 trucks entered Rosario city hub carrying grains for their unload (one-way only). Almost 1,437,015 (76% of the total) headed to the North of Rosario area, with the remaining 24% heading to the ports in the South.

For the grain arriving via trucks, according to our survey of the terminals of the area, it is estimated that the total unloading capacity of the different ports in Rosario city hub is 18,970 trucks per day, which equals to 569,100 daily tons, approximately, using their maximum capacity.

Unloading capacity: Trucks

Port	Terminal	Parking capacity	External parking capacity	Uploading capacity (trucks / day)	Uploading capacity (tonnes / day)*
Timbúes	Renova	940		2.100	63.000
Timbúes	Dreyfus - Complejo Portuario Timbúes	200	400	720	21.600
Timbúes	Cofco Timbúes	600		750	22.500
Timbúes	A.C.A.	800		1.000	30.000
Timbúes	A.G.D.	860		1.000	30.000
San Martin	Terminal 6 Muelle Norte	600	800	1.300	39.000
San Martin	Terminal 6 Muelle Sur				
San Martín	Cargill - Muelle Quebracho	400	200	1.000	30.000
San Martín	Cofco PGSM	750	300	1.440	43.200
San Martín	ADM - Muelle El Tránsito	80	320	900	27.000
San Martín	Bunge - Muelles Pampa	1.100		900	27.000
San Martín	Bunge - Muelles Dempa				
San Lorenzo	A.C.A. San Lorenzo	200	500	1.200	36.000
San Lorenzo	Vicentín	1.180		1.000	30.000
San Lorenzo	Molinos Agro - Muelle San Benito	100	1.000	1.200	36.000
Rosario	TPR Terminal 1 (ex Guide)	150	100	160	4.800
Rosario	Servicios Portuarios - Unidad VI	200	150	1.000	30.000
Rosario	Servicios Portuarios - Unidad VII				
Villa Gdor. Galvez	Cargill - Complejo Villa Gdor Gálvez	90		700	21.000
Alvear	Cargill - Muelle Punta Alvear	1.100		800	24.000
Arroyo Seco	ADM Arroyo Seco	300	500	800	24.000
General Lagos	Dreyfus - Complejo Portuario General Lagos	1.200		1.000	30.000
Total ROSARIO HUB		10.850	4.270	18.970	569.100

@BCRmercadosbased on survey. (*) Assumption of 30 tonnes each truck

The plants with the highest daily unloading capacity of trucks, in order of importance, are: Renova in Timbúes, which can unload about 2,100 daily trucks in its plant (63,000 tons/day), followed by COFCO in Puerto General San Martín (PGSM), which has a theoretical capacity to unload 1,440 daily trucks (43,200 t/day). Terminal 6 in San Martín follows closely, with a receiving capacity of 1,300 daily trucks (39,000 t/day) in order to supply its two docks. This results in a theoretical

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unloading capacity of over 187 Mt of grain a year only via this route, assuming that each truck carries 30 tons and the ports are operational 330 days a year.

Another relevant subject is the capacity for parking trucks of the port terminals in Rosario city hub. The ports of the area have a parking lot for about 15,120 heavy vehicles, between lots inside and outside ports, which relieves the routes at their most congested times, since they provide trucks with a proper place to park and wait to be unloaded. The four parking lots with greater individual capacity in Rosario city hub are the following: Terminal 6, with 1,400 spots; Dreyfus in General Lagos, with 1,200; Vicentín in San Lorenzo, with 1,180; followed by Cargill Punta Alvear and Bunge Puerto Santa Martín, with 1,100 spots.

Railway infrastructure

Besides the infrastructure to receive goods by trucks, fourteen terminals have railway access. In total, gathering the information supplied by the operators of those terminals, we can infer a receiving capacity of 112,700 daily tons of goods via freight wagons, operating at maximum capacity.

In 2020, a total of 215,000 freight wagons entered Rosario city hub carrying goods, which equals about 10.1 million tons of products. This represented about 14% of the total of goods that entered the area in that period.

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Unloading capacity: Trains

Port	Terminal	Gauge
Timbúes	A.C.A.	Narrow
Timbúes	A.G.D.	Narrow
San Martín	Minera Alumbrera	Wide
San Martín	Terminal 6 Muelle Norte	Mixed
San Martín	Cofco PGSM	Mixed
San Martín	Bunge - Muelles Pampa	Mixed
San Lorenzo	A.C.A. San Lorenzo	Mixed
San Lorenzo	Vicentín	Narrow
San Lorenzo	Molinos Agro - Muelle San Benito	Narrow
Rosario	TPR Terminal 1 (ex Guide)	Mixed
Rosario	Servicios Portuarios - Unidad VI	Mixed
Villa Gdor. Galvez	Cargill - Complejo Villa Gdor Gálvez	Wide
Alvear	Cargill - Muelle Punta Alvear	Wide
General Lagos	Dreyfus - Complejo Portuario General Lagos	Wide
TOTAL	14 ports*	

@BCRmercados based on survey. (*) We are not taking into account COFCO in Timbúes, that when this report was written was next to have their access

The great majority of railway accesses are in the North area of the Up River Paraná ports, where the plants with the highest reception capacity via railway are also located. The port-plant of Terminal 6, in the city of San Martín, usually operated by Aceitera General Deheza and Bunge Argentina, allows for an unloading rate of 550 railway wagons per day, being one with the highest capacity. Also, the new Aceitera General Deheza plant in Timbúes can unload 1,200 tons per hour of goods arriving by freight wagons, while the plant of the Association of Argentinian Cooperatives (ACA, for its Spanish acronym), in the same area, will soon be able to unload an average of 1,000 tons per hour. These three plants are the ones that reported the highest capacity of reception of goods via this means of transport.

According to the Ministry of Economy of Argentina, the port of Timbúes will soon add a new railway connection after the inauguration of a second cargo diversion towards the end of October 2021. At the time this report was written, only the plant of Aceitera General Deheza was operative in the area of Timbúes. As official sources reassured, the new detour will be shared and it will serve the port terminals of Cofco and the Association of Argentinian Cooperatives.

Argentina's need of generating a change in the transport matrix, rising the railway cargoes, makes it imperative to generate more railway accesses to plants, especially the ones located in the Northern area of Rosario hub, which could receive grains from the Northeast and the Northwest of Argentina. Important advances have been recorded with

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Ferrocarril Belgrano Cargas and the recovery of the rails from Joaquín V. González (Salta) to Avia Terai- Timbúes. They include the bridge over Carcarañá river and the beach in Villa La Ribera.

Barge docks

Through the Paraná-Paraguay waterway, every year important volumes of goods sail down in rail barges towards the terminals and plants in Rosario export node. We mainly refer to goods of foreign origin that are transshipped in Rosario city hub of ports, to soybean temporarily imported by our country and to Argentinian grains arriving from domestic ports on the banks of Paraná river.

In this sense, in 2020 a total of 5,600 barges entered the port node, according to our own estimations, carrying a total of 600 thousand tons of grains of domestic origin and approximately 8.42 million tons of grains, oils, meals and other by-products of domestic and foreign origin via this means of transport.

Unloading capacity: Barge

Port	Terminal	Uploading capacity (tonnes / day)*
Timbúes	Renova	12.000
Timbúes	Dreyfus - Complejo Portuario Timbúes	12.000
Timbúes	Cofco Timbúes	12.000
San Martín	Terminal 6 Muelle Norte	12.000
San Martín	Cargill - Muelle Quebracho	12.000
San Martín	Cofco PGSM	7.200
San Martín	ADM - Muelle El Tránsito	11.000
San Lorenzo	A.C.A. San Lorenzo	5.000
San Lorenzo	Vicentín	10.800
Rosario	TPR Terminal 1 (ex Guide)	8.400
Rosario	Servicios Portuarios - Unidad VI	9.600
Villa Gdor. Galvez	Cargill - Complejo Villa Gdor Gálvez	12.000
General Lagos	Dreyfus - Complejo Portuario General Lagos	5.000
Total ROSARIO HUB		129.000

@BCRmercados based on survey

In total, the agribusiness export node has 13 terminals with barge docks, with a daily receiving capacity of 129,000 tons of goods at their maximum capacity. In total, with an operative cycle of 330 days, over 42.5 million tons could be received this way; that is to say, the degree of utilization of the facilities for receiving goods via barge is 20%, proving the capacity of future expansion of this shipping method.

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