A comparative analysis of soybean complexes in Argentina and Brazil

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Soybean is the crop with the greatest participation in both countries' planted area. However, there is a great difference between the extension of Argentina and Brazil's planted area and the volume of production, naturally. In 2017/18 cycle, Brazilian farmers planted 35.1 thousand hectares of soybeans, almost doubling Argentina (17.7 MH). In addition, the intensified use of fertilizers in Brazil and the incentive to technological innovation in genetic engineering applied to seeds in this country underpin the productivity considerably.

Argentina and Brazil soybean complex comparison

		2017/2018		2018/19	
		Argentina	Brazil	Argentina	Brazil
Production	Estimated planted area (MH)	17,7	35,1	17,6	35,7
	Soybeans share in total planted area	*50%*	*57%*	*50%*	*57%*
	Estimated production (mln tons)	35,0	119	49,1	118,0
	Average yield (Tons/H)	2,11	3,36	2,88	3,35
Crushing	Crushing capacity (mln tons/year)	66,1	56,5	66,1	56,5
	Estimated crushing capacity use	*55%*	*76%*	*53%*	*76%*
	Estimated soybean crushing (mln tons of beans)	36,3	42,9	35,2	42,7
	Crushing / Total production Ratio	*104%*	*36%*	*72%*	*37%*
	Estimated soybean meal production (mln tons)	27,6	34,5	26,8	33,1
	Estimated soybean oil production (mln tons)	7,0	8,5	6,8	8,1
Foreign trade	Estimated soybeans exports (mln tons)	3,9	80,9	14,0	75,6
	Exports / Total production Ratio	*11%*	*68%*	*29%*	*65%*
	Estimated soybean meal exports (mln tons)	25,3	16,1	24,0	15,2
	Exports / Soybean meal total production Ratio	*92%*	*47%*	*90%*	*46%*
	Estimated domestic consumption of soybean meal (mln tons)	2,3	17,7	2,8	18,1
	Domestic consumption / Soybean meal production Ratio	*8%*	*51%*	*10%*	*55%*
	Estimated soybean oil exports (mln tons)	4,6	1,5	4,4	1,4
	Exports / Soybean oil production Ratio	*65%*	*18%*	*65%*	*17%*
	Estimated domestic consumption of soybean oil (mln tons)	2,4	6,9	2,4	7
	Domestic consumption / Soybean oil production Ratio	*35%*	*81%*	*35%*	*86%*

Fuente: @BCRmercados based on GEA (BCR), Conab (Brazil), USDA and J.J. Hinrichsen data.

As for soybean crushing, Argentine crushing industry stands out in the world for its efficiency, concentration and state-of-the-art technology. Crushing plants in Argentina are larger and more modern from those in Brazil. Actually, despite the fact that Brazil produces twice as much soybeans as Argentina, our country has a milling capacity of almost 10 million tons more than Brazil. In 2017/18, only 36.3 million tons of soybeans were industrialized in Argentina due to the drought. The national crushing volume in the previous cycles always exceeded 40 Mt. Despite being below the normal, if compared with the national production of almost 35 Mt, the "crushing / soybean production" ratio exceeded 100% due to greater beans imports and the large beginning stocks that compensated for lower production. Although the domestic markets of Argentina and Brazil have very different structures, both soybean complexes have a strong export profile. Brazil is relatively stronger in beans exports, while Argentina stands out for its shipments of soybean oil and meal. Brazil exported 68% of its soybeans production in the 2017/18 and 65% in 2018/19, while Argentine beans exports rose from 11% to 29% in the cycles considered, amid US-China war trade. The greater Chinese demand for soybeans reduced the incentives to crush oilseeds within the Argentina's borders. Furthermore, domestic consumption of soybeans by-products in both countries is very different. Brazil is able to export its soybeans by-products only after supplying its large domestic demand (51% of meal and 81% of oil). Argentina, on the other hand, has a much smaller domestic demand (around 8% of meal and

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35% of oil); therefore, it can ship a large proportion of industrialized products. Thus, Argentina sales abroad than 90% of its soybean meal production and around 65% of the oil, while Brazil only ships around 45% and 17%, respectively. The features of each soybean complex respond to Brazil and Argentina's comparative advantages. Brazilian superiority in terms of production volume enables the country to export a great proportion of beans; while Argentina, thanks to its more efficient installed crushing capacity specializes on the export of soybean by-products. It should also be noted that the tax system in Brazil tends to promote beans exports over soybeans by-products exports. To conclude, despite the similarities between the two complexes, there are significant structural differences between them. On the one hand, Brazil has a vast fertile surface and the potential to expand its agricultural frontier, while Argentina stands out for the efficiency of its industrial hub enable to originate products with greater value added. Both countries have comparative advantages and disadvantages that define each soybean complex profile in order to take advantages of its strengths optimally.

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