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## **Brazil**

### **Sugar Semi-annual**

### **Sugar Semi-annual 2016**

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**Report Highlights**

Brazil's MY 2016/17 sugarcane crush is revised downward at 658 mmt, due to dry weather and inadequate crop management. Approximately 45 percent of the crop should be diverted to sugar, a clear sign of attractive sugar prices both domestically and in the world market. Total exports for MY 2016/17 are estimated at 27.12 mmt, raw value, the second highest export volume after record exports in 2012/13 (27.65 mmt).

## Production

### Sugarcane Production, Area and Yield

The Agricultural Trade Office (ATO/São Paulo) estimates total Brazilian sugarcane production for marketing year (MY) 2016/17 (April-March) at 658 million metric tons (mmt), down three percent from the previous figure.

The center-south (CS) sugarcane production has been revised downward to 608 mmt, down 22 mmt from the previous estimate, due to dryer weather than historical averages during the crushing season (except from mid-May to early June), and lower investment on crop management. Combined, the aforementioned factors should negatively affect sugarcane volumes for the last third of the crop. The dry weather has contributed to a faster harvest pace, thus the crushing season is expected to end in December, therefore not repeating the abnormal length of the MY 2015/16 harvest which stretched through March 2016.

As of the date of this report, the North-Northeast (NNE) crushing has just started and output remains unchanged from the previous estimate at 50 mmt. Dry weather, lower than average plant renewal rates and inadequate crop management have offset initial expectations for increased production potential.

Total sugarcane planted and harvested area for MY 2016/17 remain unchanged at 9.9 and 9.45 million hectares, respectively. The table below shows sugarcane harvested area, according to the Ministry of Agriculture, Livestock and Supply's (MAPA) National Supply Company (CONAB), and the Agricultural Economics Institute (IEA) of the State of São Paulo Secretariat of Agriculture.

<b>Area Harvested to Sugarcane (1,000 ha).</b>							
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016 1/</b>
<b>Brazil</b>	8,033.6	8,356.1	8,485.0	8,810.8	9,004.5	8,654.8	8,973.2
<b>Sao Paulo</b>	5,135.3	5,269.4	5,355.7	5,501.9	5,539.7	5,605.7	5,554.9

Sources: CONAB, IEA. 1/estimate.

The agricultural yield in MY 2016/17 is estimated at 70.05 metric tons (mt)/hectare (ha), down one percent compared to the previous year, 71.11 mt/ha, due to dryer than normal weather and less intensive crop management (use of inputs and renewal of sugarcane fields). Industrial yields are estimated at 132.39 kg of total reducing sugars (TRS)/mt of sugarcane, virtually unchanged relative to the previous estimate. The following table shows historical Brazilian yields measured in TRS per metric ton of sugarcane.

<b>Sugarcane Industrial Yields (kg TRS/metric ton)</b>					
	<b>MY 12/13</b>	<b>MY 13/14</b>	<b>MY 14/15</b>	<b>MY 15/16</b>	<b>MY 16/17 1/</b>
<b>TRS/ton</b>	135.29	132.63	135.72	130.17	132.39

Source: USDA/FAS/ATO/São Paulo 1/ MY 2016/17 - estimate

According to the Sugar and Alcohol Millers Association of São Paulo State (UNICA), 393.7 mmt of sugarcane were crushed in the CS from March through August, up six percent compared to the same

period in 2015. Crushing this season is 23.5 mmt of sugarcane ahead of schedule, compared to the same period last year, but harvest should end in December, and the final crush is expected to result in lower volumes than the previous crop.

UNICA reports that 22.42 million tons of sugar, tel quel, was produced by August 31, representing a 17 percent increase compared to 2015 levels. Cumulative ethanol production is 16.46 billion liters, virtually unchanged from the previous year. These numbers undoubtedly show that more sugarcane has been diverted toward sugar production this year (45.66 percent compared to 41.78 percent in 2015).

The following tables show monthly sugarcane crush data for the state of São Paulo and the CS region for the 2012/13 to 2016/17 crops, as reported by UNICA. São Paulo represents approximately 60 percent of the CS production.

<b>Sugarcane crushed in the state of São Paulo (1,000 metric tons).</b>					
<b>Month</b>	<b>12/13</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	<b>16/17</b>
<b>February</b>	0	0	0	0	0
<b>March</b>	104	0	0	0	0
<b>April</b>	6,649	26,582	25,864	22,420	43,689
<b>May</b>	34,197	47,857	48,510	40,914	43,529
<b>June</b>	32,888	39,393	53,885	51,560	41,012
<b>July</b>	54,517	52,875	48,034	46,975	57,703
<b>August</b>	56,678	57,868	54,736	56,701	50,121
<b>September</b>	44,962	46,719	39,289	40,026	--
<b>October</b>	47,015	43,117	42,558	46,093	--
<b>November</b>	37,562	36,445	19,130	26,383	--
<b>December</b>	14,498	15,482	5,106	19,727	--
<b>January</b>	582	525	573	3,549	--
<b>February</b>	122	19	95	2,125	--
<b>March</b>	56	351	0	11,851	--
<b>Cumulative</b>	329,831	367,233	337,780	368,323	236,055

Source: Sugar and Alcohol Millers Association of São Paulo State (UNICA).

<b>Sugarcane crushed in Center-Southern Brazil (1,000 metric tons).</b>					
<b>Month</b>	<b>12/13</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	<b>16/17</b>
<b>February</b>	146	0	0	0	0

<b>March</b>	388	0	0	0	0
<b>April</b>	13,599	41,716	40,375	40,163	69,050
<b>May</b>	56,665	75,966	76,938	69,197	71,838
<b>June</b>	57,580	65,057	85,676	86,434	73,764
<b>July</b>	88,472	87,425	77,394	79,070	95,866
<b>August</b>	90,765	95,281	92,308	95,289	83,137
<b>September</b>	73,736	77,169	68,750	70,341	--
<b>October</b>	74,143	70,227	73,878	74,966	--
<b>November</b>	55,100	58,357	38,903	44,544	--
<b>December</b>	20,718	23,816	13,850	28,553	--
<b>January</b>	949	970	2,040	5,927	--
<b>February</b>	291	204	664	3,827	--
<b>March</b>	56	416	569	19,395	--
<b>Cumulative</b>	532,607	596,603	571,344	617,709	393,656

Source: Sugar and Alcohol Millers Association of São Paulo State (UNICA).

## Sugarcane and Ethanol

Total sucrose (total reducing sugar, TRS) content destined for sugar and ethanol production is estimated at 45/55 percent for MY 2016/17, compared to 43/57 for the previous estimate for MY 2016/17 and 41/59 for MY 2015/16. Therefore, sugarcane diverted to sugar has noticeably increased throughout the season.

This is a direct consequence of higher demand for sugar on the world market, due to an increased estimated deficit of world supply. Trade sources estimate a cumulative deficit of roughly 15 mmt for aggregated MYs 2015/16 and 2016/17. China and India are expected to import large amounts of sugar. As a result, Post revised sugar production for MY 2016/17 upward to 37.78 mmt, raw value, up 710,000 mt from the previous estimate and up 3.13 mmt, raw value, compared to the previous season.

The tables below show monthly sugar production for the state of São Paulo and the CS region for the 2012/13 to 2016/17 crops, as reported by UNICA.

<b>Sugar production in the state of São Paulo (Metric tons, tel quel)</b>					
<b>Month</b>	<b>12/13</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	<b>16/17</b>
<b>February</b>	0	0	0	0	0
<b>March</b>	3,691	0	0	0	0

<b>April</b>	287,294	1,204,407	1,077,798	918,009	2,292,732
<b>May</b>	1,952,653	2,844,117	2,874,125	2,214,282	2,648,457
<b>June</b>	2,017,509	2,305,372	3,564,842	3,123,877	2,551,700
<b>July</b>	3,800,734	3,425,222	3,407,713	3,009,722	4,026,787
<b>August</b>	4,377,261	4,244,576	4,003,035	3,948,623	3,757,876
<b>September</b>	3,584,137	3,653,913	2,734,179	2,719,062	--
<b>October</b>	3,681,687	3,039,994	2,894,877	3,056,703	--
<b>November</b>	2,647,361	2,415,600	1,136,646	1,318,035	--
<b>December</b>	912,666	807,064	203,879	755,491	--
<b>January</b>	11,736	10,242	9,542	80,523	--
<b>February</b>	6,356	0	2,485	41,441	--
<b>March</b>	1,004	14,371	20	381,687	--
<b>Cumulative</b>	23,284,089	23,964,878	21,909,141	21,567,455	15,277,552
Source: Sugar and Alcohol Millers Association of São Paulo State (UNICA).					

<b>Sugar production in Center-Southern Brazil (Metric tons, tel quel).</b>					
<b>Month</b>	<b>12/13</b>	<b>13/14</b>	<b>14/15</b>	<b>15/16</b>	<b>16/17</b>
<b>February</b>	4,692	0	0	0	0
<b>March</b>	5,052	0	0	0	0
<b>April</b>	535,505	1,704,682	1,499,504	1,448,957	3,243,652
<b>May</b>	2,983,558	3,944,719	3,935,971	3,198,629	3,742,370
<b>June</b>	3,161,408	3,308,644	4,905,573	4,507,387	3,990,684
<b>July</b>	5,605,984	4,958,695	4,787,076	4,256,943	5,934,498
<b>August</b>	6,366,406	6,152,387	5,815,997	5,733,292	5,504,531
<b>September</b>	5,342,707	5,281,370	4,137,377	4,067,628	--
<b>October</b>	5,331,840	4,372,655	4,404,882	4,279,266	--
<b>November</b>	3,576,444	3,407,612	1,952,698	1,909,386	--
<b>December</b>	1,156,251	1,135,957	506,583	1,032,089	--
<b>January</b>	14,532	10,513	28,066	120,054	--
<b>February</b>	6,356	1	6,250	62,677	--
<b>March</b>	1,004	15,640	7,120	605,179	--
<b>Cumulative</b>	34,091,739	34,292,875	31,987,097	31,221,487	22,415,735
Source: Sugar and Alcohol Millers Association of São Paulo State (UNICA).					

Total ethanol production for MY 2016/17 is estimated between 27.5 and 28.5 billion liters (11.5-12 billion liters of anhydrous and 16-16.5 billion liters of hydrated ethanol), down approximately 2 billion liters from the previous marketing year, the result of higher demand for sugar.

The table below shows the sales of FFV and ethanol powered cars. Note that sales of FFV currently represent roughly 88 percent of total vehicle sales. According to the industry, FFV and pure ethanol engines already represents approximately 74 percent of the light vehicles fleet, therefore, supporting potential demand for ethanol.

<b>Licensing of Ethanol Powered Vehicles (pure ethanol &amp; flex fuel units)</b>						
<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016 1/</b>
2,876,173	2,848,071	3,162,824	3,169,111	2,940,508	2,194,020	993,074
Source: National Association of Vehicle Manufacturers (ANFAVEA) 1/ January-July.						

The steady sales of FFV do not solely guarantee a higher demand for ethanol given that consumer decisions are driven by the ratio between ethanol and gasoline prices. The 70 percent ratio between ethanol and gasoline prices remains the rule of thumb in Brazil, for determining whether flex car owners will choose to fill up with ethanol (price ratio below 70 percent) or gasoline (price ratio above 70 percent).

The tables below show ethanol and gasoline prices as well as the price ratio for selected states and cities in January-February (off-peak) and in July-August (peak season) 2013, 2014, 2015, and 2016. Note that in the peak of the harvest season, ethanol remained the more economic option for fueling only in the states of São Paulo and Minas Gerais due to logistic advantages and preferential state taxes.

<b>Gasoline and Ethanol Prices in Selected States (average price, R\$/liter)</b>									
		<b>Gasoline</b>				<b>Ethanol</b>			
		<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>São Paulo State</b>	<b>Jan</b>	2.644	2.835	2.918	3.520	1.829	1.909	1.935	2.601
	<b>Feb</b>	2.767	2.837	3.150	3.544	1.875	1.946	2.101	2.682

	<b>Jun</b>	2.726	2.868	3.128	3.464	1.787	1.902	1.969	2.271
	<b>Aug</b>	2.705	2.856	3.095	3.446	1.741	1.874	1.897	2.284
<b>São Paulo City</b>	<b>Jan</b>	2.628	2.803	2.878	3.486	1.818	1.903	1.914	2.588
	<b>Feb</b>	2.739	2.800	3.100	3.507	1.869	1.935	2.069	2.658
	<b>Jun</b>	2.699	2.835	3.074	3.414	1.751	1.869	1.935	2.245
	<b>Aug</b>	2.674	2.674	3.042	3.394	1.718	1.841	1.862	2.237
<b>Minas Gerais</b>	<b>Jan</b>	2.824	2.976	3.025	3.707	2.095	2.134	2.198	2.781
	<b>Feb</b>	2.923	2.963	3.304	3.741	2.125	2.149	2.363	2.907
	<b>Jun</b>	2.903	2.952	3.366	3.683	2.105	2.210	2.232	2.522
	<b>Aug</b>	2.875	2.969	3.340	3.684	2.035	2.173	2.152	2.548
<b>Belo Horizonte (MG Capital)</b>	<b>Jan</b>	2.740	2.859	2.902	3.571	2.083	2.098	2.135	2.704
	<b>Feb</b>	2.824	2.847	3.225	3.616	2.106	2.110	2.312	2.884
	<b>Jun</b>	2.782	2.851	3.296	3.555	2.065	2.155	2.244	2.457
	<b>Aug</b>	2.732	2.846	3.245	3.560	1.947	2.115	2.098	2.482
<b>Rio Janeiro State</b>	<b>Jan</b>	2.898	3.082	3.214	3.869	2.243	2.352	2.500	3.242
	<b>Feb</b>	3.002	3.085	3.453	3.899	2.268	2.378	2.662	3.363
	<b>Jun</b>	3.005	3.132	3.516	3.907	2.303	2.468	2.649	3.071
	<b>Aug</b>	2.994	3.128	3.516	3.890	2.257	2.454	2.635	3.055
<b>Rio Janeiro Capital</b>	<b>Jan</b>	2.866	3.052	3.187	3.849	2.231	2.340	2.485	3.233
	<b>Feb</b>	2.967	3.056	3.433	3.880	2.251	2.372	2.661	3.372
	<b>Jun</b>	2.974	3.109	3.490	3.898	2.280	2.451	2.624	3.060
	<b>Aug</b>	2.959	3.098	3.497	3.869	2.231	2.430	2.618	3.038
<b>Porto Alegre (RS Capital)</b>	<b>Jan</b>	2.695	2.897	2.967	3.963	2.316	2.387	2.389	3.501
	<b>Feb</b>	2.847	2.882	3.297	3.959	2.336	2.396	2.586	3.586
	<b>Jun</b>	2.751	2.884	3.289	3.810	2.396	2.384	2.491	3.352
	<b>Aug</b>	2.760	2.872	3.316	3.886	2.387	2.337	2.487	3.352
<b>Goiania (GO Capital)</b>	<b>Jan</b>	2.743	3.136	3.220	3.650	1.937	2.225	2.181	2.629
	<b>Feb</b>	2.836	3.111	3.431	3.384	1.951	2.175	2.339	2.837
	<b>Jun</b>	2.794	3.085	3.170	3.782	1.849	2.100	1.974	2.659
	<b>Aug</b>	2.784	3.134	3.224	3.795	1.811	2.166	2.043	2.693
<b>Fortaleza (CE Capital)</b>	<b>Jan</b>	2.675	2.891	3.151	3.876	2.220	2.335	2.572	3.073
	<b>Feb</b>	2.850	2.879	3.347	3.867	2.280	2.342	2.601	3.091
	<b>Jun</b>	2.856	2.952	3.370	3.968	2.337	2.471	2.609	3.274
	<b>Aug</b>	2.780	2.984	3.369	3.941	2.332	2.491	2.608	3.244

Source: Petroleum, Natural Gas and Biofuels National Agency (ANP).

<b>Ratio Ethanol/Gasoline Prices</b>					
		<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>São Paulo State</b>	<b>Jan</b>	69%	67%	66%	74%
	<b>Feb</b>	68%	69%	67%	76%
	<b>Jun</b>	66%	66%	63%	66%

	<b>Aug</b>	64%	66%	61%	66%
<b>São Paulo City</b>	<b>Jan</b>	69%	68%	67%	74%
	<b>Feb</b>	68%	69%	67%	76%
	<b>Jun</b>	65%	66%	63%	66%
	<b>Aug</b>	64%	69%	61%	66%
<b>Minas Gerais</b>	<b>Jan</b>	74%	72%	73%	75%
	<b>Feb</b>	73%	73%	72%	78%
	<b>Jun</b>	73%	75%	66%	68%
	<b>Aug</b>	71%	73%	64%	69%
<b>Belo Horizonte (MG Capital)</b>	<b>Jan</b>	76%	73%	74%	76%
	<b>Feb</b>	75%	74%	72%	80%
	<b>Jun</b>	74%	76%	68%	69%
	<b>Aug</b>	71%	74%	65%	70%
<b>Rio Janeiro State</b>	<b>Jan</b>	77%	76%	78%	84%
	<b>Feb</b>	76%	77%	77%	86%
	<b>Jun</b>	77%	79%	75%	79%
	<b>Aug</b>	75%	78%	75%	79%
<b>Rio Janeiro Capital</b>	<b>Jan</b>	78%	77%	78%	84%
	<b>Feb</b>	76%	78%	78%	87%
	<b>Jun</b>	77%	79%	75%	79%
	<b>Aug</b>	75%	78%	75%	79%
<b>Porto Alegre (RS Capital)</b>	<b>Jan</b>	86%	82%	81%	88%
	<b>Feb</b>	82%	83%	78%	91%
	<b>Jun</b>	87%	83%	76%	88%
	<b>Aug</b>	86%	81%	75%	86%
<b>Goiania (GO Capital)</b>	<b>Jan</b>	71%	71%	68%	72%
	<b>Feb</b>	69%	70%	68%	84%
	<b>Jun</b>	66%	68%	62%	70%
	<b>Aug</b>	65%	69%	63%	71%
<b>Fortaleza (CE Capital)</b>	<b>Jan</b>	83%	81%	82%	79%
	<b>Feb</b>	80%	81%	78%	80%
	<b>Jun</b>	82%	84%	77%	83%
	<b>Aug</b>	84%	83%	77%	82%
Source: Petroleum, Natural Gas and Biofuels National Agency (ANP).					
Gray Area means gasoline prices more attractive than ethanol					

According to the Ministry of Agriculture, Livestock and Supply (MAPA), cumulative production for the 2016/17 crop through August 30, 2016 was reported at 22.23 mmt of sugar and 16.96 billion liters of ethanol (6.67 billion liters of anhydrous and 10.29 billion liters of hydrated ethanol). The table below shows updated estimates for sugarcane, sugar and ethanol production by state for MY 2015/16 and 16/17, as reported by MAPA.



<b>Cane, Sugar &amp; Ethanol Production: 2015/16 Crop (MT and 000 Liters)</b>					
<b>State/Region</b>	<b>Cane</b>	<b>Sugar</b>	<b>Ethanol</b>		
			<b>Anhydrous</b>	<b>Hydrous</b>	<b>Total</b>
<b>Espirito Santo</b>	2,809,562	70,952	82,233	68,612	150,845
<b>Goiás</b>	73,203,005	1,892,231	1,035,366	3,662,705	4,698,071
<b>Minas Gerais</b>	64,968,130	3,249,367	1,038,036	2,048,209	3,086,245
<b>Mato Grosso Sul</b>	48,685,412	1,325,318	650,281	2,169,819	2,820,100
<b>Mato Grosso</b>	17,150,549	337,162	528,120	798,469	1,326,589
<b>Parana</b>	41,286,091	2,703,136	586,191	990,712	1,576,903
<b>Rio de Janeiro</b>	1,066,152	0	0	58,654	58,654
<b>Rio Grande Sul</b>	61,238	0	0	3,786	3,786
<b>Sao Paulo</b>	369,048,830	21,343,386	6,292,173	8,540,814	14,832,987
<b>Center South</b>	<b>618,278,969</b>	<b>30,921,552</b>	<b>10,212,400</b>	<b>18,341,780</b>	<b>28,554,180</b>
<b>Acre</b>	86,072	0	0	4,510	4,510
<b>Amazonas</b>	216,343	12,356	0	5,804	5,804
<b>Ceara</b>	208,636	0	0	14,597	14,597
<b>Maranhao</b>	2,455,136	12,524	146,159	41,125	187,284
<b>Parana</b>	682,261	22,234	29,790	11,136	40,926
<b>Piaui</b>	967,360	66,911	29,336	3,338	32,674
<b>Rondonia</b>	191,003	0	0	12,909	12,909
<b>Tocantins</b>	2,366,228	0	143,463	69,358	212,821
<b>North</b>	<b>7,173,039</b>	<b>114,025</b>	<b>348,748</b>	<b>162,777</b>	<b>511,525</b>
<b>Alagoas</b>	16,381,813	1,229,041	215,298	163,351	378,649
<b>Bahia</b>	3,816,394	79,798	46,373	175,031	221,404
<b>Paraiba</b>	5,737,280	129,047	177,132	178,781	355,913
<b>Pernambuco</b>	11,394,272	822,342	154,377	196,087	350,464
<b>Rio Grande Norte</b>	2,608,367	147,467	52,101	39,540	91,641
<b>Sergipe</b>	2,295,878	105,444	26,109	86,341	112,450
<b>Northeast</b>	<b>42,234,004</b>	<b>2,513,139</b>	<b>671,390</b>	<b>839,131</b>	<b>1,510,521</b>
<b>TOTAL</b>	<b>667,686,012</b>	<b>33,548,716</b>	<b>11,232,538</b>	<b>19,343,688</b>	<b>30,576,226</b>
Source: Ministry of Agriculture, Livestock and Supply-Sugar, Alcohol Dept, 09/14/2016					

<b>Cane, Sugar &amp; Ethanol Production: 2016/17 Crop (MT and 000 Liters)</b>					
<b>State/Region</b>	<b>Cane</b>	<b>Sugar</b>	<b>Ethanol</b>		
			<b>Anhydrous</b>	<b>Hydrous</b>	<b>Total</b>
<b>Espirito Santo</b>	1,194,201	60,178	39,129	12,236	51,365
<b>Goiás</b>	48,136,253	1,468,093	669,805	2,396,019	3,065,824
<b>Minas Gerais</b>	43,343,857	2,583,729	697,754	1,092,061	1,789,815

<b>Mato Grosso Sul</b>	27,504,971	884,382	457,177	1,046,768	1,503,945
<b>Mato Grosso</b>	11,177,582	252,378	361,418	403,032	764,450
<b>Parana</b>	27,876,131	2,017,798	385,987	539,371	925,358
<b>Rio de Janeiro</b>	767,613	25,035	0	32,769	32,769
<b>Rio Grande Sul</b>	28,812	0	0	1,806	1,806
<b>Sao Paulo</b>	232,638,433	14,778,188	3,841,239	4,637,930	8,479,169
<b>Center South</b>	<b>392,667,853</b>	<b>22,069,781</b>	<b>6,452,509</b>	<b>10,161,992</b>	<b>16,614,501</b>
<b>Acre</b>	42,882	0		2,436	2,436
<b>Amazonas</b>	20,196	835		148	148
<b>Ceara</b>	73,966	0		5,242	5,242
<b>Maranhao</b>	1,061,257	8,528	65,750	11,763	77,513
<b>Parana</b>	393,163	16,042	14,352	2,558	16,910
<b>Piaui</b>	500,669	32,760	14,355	205	14,560
<b>Rondonia</b>	82,025	0	0	5,917	5,917
<b>Tocantins</b>	1,543,820	0	80,010	35,233	115,243
<b>North</b>	<b>3,717,978</b>	<b>58,165</b>	<b>174,467</b>	<b>63,502</b>	<b>237,969</b>
<b>Alagoas</b>	1,873	0	0	0	0
<b>Bahia</b>	1,483,051	57,028	35,194	37,802	72,996
<b>Paraiba</b>	651,807	20,352	9,989	22,901	32,890
<b>Pernambuco</b>	319,569	25,341	177	4,065	4,242
<b>Rio Grande Norte</b>	0	0	0	0	0
<b>Sergipe</b>	0	0	0	0	0
<b>Northeast</b>	<b>2,456,300</b>	<b>102,721</b>	<b>45,360</b>	<b>64,768</b>	<b>110,128</b>
<b>TOTAL</b>	<b>398,842,131</b>	<b>22,230,667</b>	<b>6,672,336</b>	<b>10,290,262</b>	<b>16,962,598</b>
Source: Ministry of Agriculture, Livestock and Supply-Sugar, Alcohol Dept, 09/14/2016					

## Sugarcane, Sugar and Ethanol Prices in the Domestic Market

Sugarcane prices received by third party suppliers for the major producing states are based on a formula that takes into account prices for sugar and ethanol prices both in the domestic and international markets. The State of São Paulo Sugarcane, Sugar and Ethanol Growers Council (CONSECANA) was the first to develop this formula for the state of São Paulo, the major producing state comprising 60 percent of the center-south production.

CONSECANA reports that the average sugarcane price (April-August 2016) for the state of São Paulo for the 2016/17 crop was R\$0.6122 per kg of TRS, or R\$80.13 per ton of sugarcane, up R\$18.54 per ton compared to the same period for the 2015/16 crop (R\$0.4741 per kg of TRS, or R\$61.59 per ton of sugarcane), due to higher prices paid for sugar and ethanol during the crushing season compared the previous year. Note that CONSECANA's prices are based on both sugar and ethanol prices in domestic and international markets.

The Crystal Sugar and Ethanol Indexes released by the University of São Paulo's College of Agriculture "Luiz de Queiroz" (ESALQ) follow. The indexes track crystal sugar, anhydrous, and hydrated prices received by producers in the domestic spot market.

<b>Crystal Sugar Prices - Domestic Market (Real, 50kg/bag, including tax).</b>					
<b>Period</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>January</b>	62.04	48.80	50.29	51.05	83.75
<b>February</b>	59.10	47.97	50.38	50.11	81.25
<b>March</b>	57.34	45.04	51.86	50.97	77.46
<b>April</b>	56.44	44.21	51.70	51.57	76.00
<b>May</b>	54.58	44.55	51.49	51.20	75.68
<b>June</b>	55.12	44.23	49.54	49.03	83.94
<b>July</b>	56.96	44.48	47.07	47.85	86.65
<b>August</b>	56.08	43.55	45.54	46.90	85.89
<b>September 1/</b>	49.85	45.44	44.76	51.06	86.88
<b>October</b>	50.57	50.78	47.62	64.98	--
<b>November</b>	50.20	51.94	50.97	76.44	--
<b>December</b>	49.12	51.06	52.12	80.57	--

Source: USP/ESALQ/CEPEA. 1/ September 2016 refers to September 1-27.

<b>Price for Fuel Anhydrous Ethanol - State of São Paulo (R\$/000 liters).</b>					
<b>Period</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>January</b>	1270.30	1302.50	1456.10	1458.20	1996.70
<b>February</b>	1184.60	1352.70	1520.50	1552.50	2083.00
<b>March</b>	1278.80	1374.50	1610.20	1420.40	2113.70
<b>April</b>	1259.70	1394.80	1522.00	1401.50	1602.40
<b>May</b>	1294.30	1329.10	1366.40	1363.10	1536.40
<b>June</b>	1234.00	1285.20	1359.20	1352.40	1678.10
<b>July</b>	1232.50	1271.20	1373.90	1328.80	--
<b>August</b>	1198.70	1227.30	1346.00	1300.70	--
<b>September</b>	1198.90	1277.10	1362.40	1358.30	--
<b>October</b>	1140.00	1315.40	1290.00	1658.30	--
<b>November</b>	1234.90	1342.80	1329.90	1870.40	--
<b>December</b>	1287.20	1440.00	1407.10	1888.10	--

Source: USP/ESALQ/CEPEA.

<b>Price for Fuel Hydrated Ethanol - State of São Paulo (R\$/000 liters).</b>					
<b>Period</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>January</b>	1159.00	1144.60	1284.80	1325.60	1824.40
<b>February</b>	1119.80	1232.00	1368.60	1384.70	1916.40

<b>March</b>	1204.40	1226.40	1419.50	1261.30	1906.60
<b>April</b>	1191.40	1244.30	1338.50	1261.60	1396.60
<b>May</b>	1140.10	1110.20	1200.90	1226.50	1391.00
<b>June</b>	1082.80	1140.20	1214.90	1216.20	1501.90
<b>July</b>	1059.90	1114.50	1229.10	1199.00	--
<b>August</b>	1041.70	1088.60	1207.00	1175.50	--
<b>September</b>	1062.40	1148.50	1200.60	1273.40	--
<b>October</b>	1010.60	1164.00	1138.30	1528.80	--
<b>November</b>	1095.90	1204.70	1218.20	1709.00	--
<b>December</b>	1132.50	1281.10	1265.50	1704.60	--
Source: USP/ESALQ/CEPEA.					

The sharp increase in sugar prices are related to the increased world deficit in sugar supply. Indeed, sugar prices both domestically and on the international market have steadily increased since September 2015 and are price equivalent among different products and trade, indicating that sugar is much more attractive at the moment than ethanol. The September 29 price equivalence shows that sugar contract # 11 at ICE (Intercontinental Exchange) in New York was negotiated at 22.76 US\$/cents, whereas VHP sugar exported FOB from the Port of Santos and sugar sold on the domestic market were traded at approximately 23.6 and 24 US\$/cents, respectively. Ethanol price equivalence on the domestic market was far below, ranging between US\$/cent 16.5-17.5.

## **Consumption**

There is no official source for domestic consumption of sugar in Brazil. ATO/São Paulo estimates for Brazilian sugar consumption in MY 2016/17 remains unchanged at 10.8 mmt, down 100,000 mt from MY 2015/16.

## **Trade**

### **Sugar Exports**

Brazilian sugar exports for MY 2016/17 are estimated at 27.12 mmt, raw value, up 2.77 mmt compared to the previous MY (24.35 mmt), due to the expected deficit of sugar on the world market and increased competitiveness of the Brazilian Real. China, Bangladesh, India, and Algeria remain major destinations for Brazilian sugar. Raw sugar exports should contribute 21.69 mmt of total exports. Refined exports should account for 5.42 mmt, raw value.

The following tables show Brazilian sugar exports by destination for MY 2015/16 (April-March and April-August) and MY 2016/17 (April-August), as reported by the Brazilian Secretariat of Foreign Trade (SECEX)

<b>Brazilian Sugar Exports (NCMs 1701.11, 1701.13 &amp; 1701.14, MT, tel quel, US\$ 000 FOB)</b>
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Country	MY 2015/16 1/		MY 2015/16 2/		MY 2016/17 2/	
	Quantity	Value	Quantity	Value	Quantity	Value
China	2,343,151	680,610	955,576	289,988	1,226,028	415,480
Bangladesh	2,265,681	674,119	972,475	295,768	878,509	304,277
Algeria	1,674,423	502,191	627,776	203,525	889,232	303,680
India	1,848,182	544,159	542,939	180,553	771,621	275,100
Nigeria	1,119,200	324,547	387,018	118,878	626,043	209,648
Indonesia	29,942	8,340	9,702	2,604	481,435	170,715
Malaysia	945,037	275,753	232,615	73,514	510,868	163,302
Iraq	673,084	198,911	201,344	59,854	439,683	144,273
Morocco	862,298	246,936	327,619	96,909	413,525	139,869
Saudi Arabia	709,508	208,562	173,365	53,585	420,980	138,643
Others	7,122,670	2,185,054	2,450,661	785,246	3,245,157	1,106,561
<b>Total</b>	<b>19,593,175</b>	<b>5,849,183</b>	<b>6,881,089</b>	<b>2,160,423</b>	<b>9,903,079</b>	<b>3,371,547</b>

Source : Brazilian Foreign Trade Secretariat (SECEX)

Note : Numbers may add due to rounding 1/ April-Mar 2/April-Aug

Brazilian Sugar Exports (NCM 1701.99.00, MT, tel quel, US\$ 000 FOB)						
Country	MY 2015/16 1/		MY 2015/16 2/		MY 2016/17 2/	
	Quantity	Value	Quantity	Value	Quantity	Value
Yemen	215,683	74,108	59,130	21,848	275,286	110,829
UAE	993,180	268,281	336,087	98,017	251,351	93,170
Myanmar	90,126	31,267	0	0	199,979	82,960
Sri Lanka	256,534	87,947	123,171	43,728	207,768	82,368
Saudi Arabia	409,622	113,453	219,276	64,408	106,010	51,186
Nigeria	334,551	92,812	166,051	47,176	125,705	41,957
Mauritania	390,455	137,817	115,595	40,059	85,575	33,093
Angola	218,328	76,470	84,306	30,613	81,105	32,765
United States	90,452	60,740	39,891	28,248	45,984	30,401
South Africa	100,161	35,875	56,953	20,417	42,095	20,410
Others	1,989,213	692,960	801,989	287,290	777,901	309,617
<b>Total</b>	<b>5,088,304</b>	<b>1,671,730</b>	<b>2,002,450</b>	<b>681,804</b>	<b>2,198,759</b>	<b>888,756</b>

Source : Brazilian Foreign Trade secretariat (SECEX)

Note : Numbers may add due to rounding 1/ April-Mar; 2/April-Aug

## Ethanol Exports

The tables below show ethanol exports by destination and imports by country of origin for MY 2015/16 (April-March) and MY 2016/17 (April-August), as reported by the Brazilian Secretariat of Foreign Trade (SECEX).

<b>Brazilian Ethanol Exports (NCM 2207.10, 2207.20.11 &amp; 2207.20.19, MT, 000 Liters, US\$ 1,000 FOB)</b>						
	<b>MY 2015/16 1/</b>			<b>MY 2016/17 2/</b>		
<b>Country</b>	<b>Volume</b>	<b>Weight</b>	<b>Value</b>	<b>Volume</b>	<b>Weight</b>	<b>Value</b>
<b>United States</b>	983,351	777,466	476,688	453,681	359,174	222,150
<b>South Korea</b>	571,481	461,666	249,521	229,433	185,312	106,243
<b>Japan</b>	62,223	49,213	31,490	35,949	28,367	18,859
<b>India</b>	91,547	74,046	36,392	44,356	35,868	15,535
<b>Netherlands</b>	106,565	85,659	46,766	29,836	24,038	14,280
<b>Colombia</b>	10,820	8,716	5,234	9,288	7,491	4,946
<b>Nigeria</b>	59,674	48,236	24,707	10,574	8,552	4,793
<b>Saudi Arabia</b>	33,199	26,821	13,497	9,721	7,861	4,764
<b>Turkey</b>	25,755	20,735	12,005	9,214	7,419	4,496
<b>Uruguay</b>	3,666	3,025	2,355	1,461	1,175	808
<b>Others</b>	215,965	171,812	102,609	5,120	4,122	3,539
<b>Total</b>	<b>2,164,246</b>	<b>1,727,394</b>	<b>1,001,263</b>	<b>838,632</b>	<b>669,379</b>	<b>400,413</b>
Source : Brazilian Foreign Trade Secretariat (SECEX)						
Numbers may not add due to rounding 1/April-March. 2/ April-Aug.						

<b>Brazilian Ethanol Imports (NCM 2207.10, 2207.20.11 &amp; 2207.20.19, MT, 000 Liters, US\$ 1,000 FOB)</b>						
	<b>MY 2015/16 1/</b>			<b>MY 2016/17 2/</b>		
<b>Country</b>	<b>Volume</b>	<b>Weight</b>	<b>Value</b>	<b>Volume</b>	<b>Weight</b>	<b>Value</b>
<b>United States</b>	414,787	343,164	199,637	284,687	224,898	132,512
<b>Paraguay</b>	0	0	0	2,000	1,583	898
<b>Jamaica</b>	241	209	796	94	95	323
<b>Germany</b>	25	48	306	25	21	162
<b>France</b>	3	6	45	6	5	34
<b>Sweden</b>	95	80	129	24	19	30
<b>Mexico</b>	9	8	73	3	3	19
<b>Spain</b>	3	4	17	0	1	5
<b>Japan</b>	0	0	1	0	0	2
<b>Switzerland</b>	0	0	5	0	0	1
<b>Others</b>	123	104	139	0	0	0
<b>Total</b>	<b>415,286</b>	<b>343,624</b>	<b>201,148</b>	<b>286,840</b>	<b>226,624</b>	<b>133,987</b>
Source : Brazilian Foreign Trade Secretariat (SECEX)						
Numbers may not add due to rounding 1/April-March. 2/ April-Aug.						

### **Stocks**

Sugar ending stocks for MY 2016/17 are estimated at 210,000 mt, raw value, down 140,000 mt from the previous season.

## Policy

According to Post contacts, Brazil, Australia, Thailand and South Korea will be investigated by the Chinese government due to increased imports of sugar from those countries, which could be damaging the local industry. The four exporting countries should send initial comments on this issue to China by mid-October. China represents the largest export market for Brazil, representing roughly 10 percent of total sugar exports.

## Production, Supply and Demand Data Statistics

<b>Sugar Cane for Centrifugal</b>	<b>2014/2015</b>		<b>2015/2016</b>		<b>2016/2017</b>	
<b>Market Begin Year</b>	<b>April 2014</b>		<b>April 2015</b>		<b>April 2016</b>	
<b>Brazil</b>	<b>USDA Official</b>	<b>New Post</b>	<b>USDA Official</b>	<b>New Post</b>	<b>USDA Official</b>	<b>New Post</b>
<b>Area Planted</b>	9900	9900	9900	9900	9900	9900
<b>Area Harvested</b>	9250	9250	9450	9450	9450	9450
<b>Production</b>	632500	632500	667000	667000	680000	658000
<b>Total Supply</b>	632500	632500	667000	667000	680000	658000
<b>Utilization for Sugar</b>	275138	275138	273470	273470	292400	296100
<b>Utilizatn for Alcohol</b>	357362	357362	393530	393530	387600	361900
<b>Total Utilization</b>	632500	632500	667000	667000	680000	658000
(1000 HA) ,(1000 MT)						

<b>Sugar, Centrifugal</b>	<b>2014/2015</b>	<b>2015/2016</b>	<b>2016/2017</b>
<b>Market Begin Year</b>	<b>Apr 2014</b>	<b>Apr 2015</b>	<b>Apr 2016</b>

<b>Brazil</b>	<b>USDA Official</b>	<b>New Post</b>	<b>USDA Official</b>	<b>New Post</b>	<b>USDA Official</b>	<b>New Post</b>
<b>Beginning Stocks</b>	350	350	950	950	350	350
<b>Beet Sugar Production</b>	0	0	0	0	0	0
<b>Cane Sugar Production</b>	35950	35950	34650	34650	37070	37780
<b>Total Sugar Production</b>	35950	35950	34650	34650	37070	37780
<b>Raw Imports</b>	0	0	0	0	0	0
<b>Refined Imp.(Raw Val)</b>	0	0	0	0	0	0
<b>Total Imports</b>	0	0	0	0	0	0
<b>Total Supply</b>	36300	36300	35600	35600	37420	38130
<b>Raw Exports</b>	18900	18900	19750	19750	20880	21696
<b>Refined Exp.(Raw Val)</b>	5050	5050	4600	4600	5220	5424
<b>Total Exports</b>	23950	23950	24350	24350	26100	27120
<b>Human Dom. Consumption</b>	11400	11400	10900	10900	10800	10800
<b>Other Disappearance</b>	0	0	0	0	0	0
<b>Total Use</b>	11400	11400	10900	10900	10800	10800
<b>Ending Stocks</b>	950	950	350	350	520	210
<b>Total Distribution</b>	36300	36300	35600	35600	37420	38130
(1000 MT)						

### Exchange Rate

<b>Exchange Rate (R\$/US\$1.00 - official rate, last day of period)</b>							
<b>Month</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>January</b>	1.87	1.67	1.74	1.99	2.43	2.66	4.04
<b>February</b>	1.81	1.66	1.71	1.98	2.33	2.88	3.98
<b>March</b>	1.78	1.62	1.82	2.01	2.26	3.21	3.56
<b>April</b>	1.77	1.57	1.89	2.00	2.24	2.98	3.45
<b>May</b>	1.81	1.57	2.02	2.13	2.24	3.18	3.60
<b>June</b>	1.80	1.57	2.02	2.22	2.20	3.10	3.21
<b>July</b>	1.75	1.56	2.05	2.29	2.27	3.39	3.24
<b>August</b>	1.75	1.59	2.04	2.37	2.24	3.65	3.24
<b>September</b>	1.69	1.85	2.03	2.23	2.45	3.98	3.24
<b>October</b>	1.70	1.69	2.03	2.20	2.44	3.86	3.24
<b>November</b>	1.71	1.81	2.10	2.32	2.56	3.85	--
<b>December</b>	1.66	1.88	2.04	2.34	2.66	3.90	--
Source : Brazilian Central Bank (BACEN).							



