

Final report of 2018/2019 harvest season

South-Central region



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Table 1. 2018/2019 sugarcane harvest in South-Central Brazil - final numbers
Comparison with 2017/2018 crop year

Products	Crop year		
	2017/2018	2018/2019	Var. (%)
Sugarcane ¹	596,330	573,125	↓ -3.89%
Sugar ¹	36,060	26,510	↓ -26.48%
Anhydrous ethanol ²	10,419	9,141	↓ -12.26%
Hydrous ethanol ²	15,670	21,812	↑ 39.19%
Total ethanol ²	26,089	30,953	↑ 18.64%
ATR ¹	81,454	79,028	↓ -2.98%
ATR/ ton of sugarcane ³	136.59	137.89	↑ 0.95%
Share (%)	sugar	46.46%	↓
	ethanol	53.54%	↑
Liters of ethanol/ ton of sugarcane	42.88	52.63	↑ 22.74%
Kilograms of sugar/ ton of sugarcane	60.47	46.26	↓ -23.51%

Source: UNICA. Note: ¹ - thousand tons; ² - million liters; ³ - kg of ATR/ ton of sugarcane; To calculate the " ATR product" effect, it was excluded from the production of corn ethanol , specified in Table 20 .

Table 2. Sugarcane harvest per State of South-Central region

State	Sugarcane ¹		Sugar ¹		Total ethanol ²		Anhydrous ethanol ²		Hydrous ethanol ²	
	2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019
ES	2,380,657	3,174,125	126,842	146,941	90,471	137,072	79,841	116,135	10,630	20,937
GO	70,621,968	70,001,429	2,241,828	1,669,967	4,618,388	4,892,038	1,322,920	988,489	3,295,468	3,903,549
MT	16,134,127	17,348,948	410,524	370,483	1,498,675	1,804,380	539,048	656,764	959,627	1,147,616
MS	46,940,207	49,504,687	1,491,650	944,254	2,631,783	3,276,164	877,535	792,759	1,754,248	2,483,405
MG	64,956,358	63,063,301	4,241,214	3,063,330	2,709,559	3,224,003	1,066,750	901,623	1,642,809	2,322,380
PR	37,047,410	35,641,489	2,920,682	2,121,768	1,268,948	1,614,727	569,756	484,003	699,192	1,130,724
RJ	1,061,788	1,057,514	35,374	21,245	46,342	58,288	0	0	46,342	58,288
RS	44,822	39,086	0	0	2,485	2,189	0	0	2,485	2,189
SP	357,142,342	333,338,169	24,591,393	18,172,064	13,222,807	15,944,467	5,963,133	5,201,595	7,259,674	10,742,872
TOTAL	596,329,679	573,168,748	36,059,507	26,510,052	26,089,458	30,953,328	10,418,983	9,141,368	15,670,475	21,811,960

State	Kg ATR/ton. cana		Kg açúcar/ton. cana		Litros etanol/ton. cana		Mix açúcar (%)		Mix etanol (%)	
	2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019
ES	122.07	123.64	53.28	46.29	38.00	43.18	45.81%	39.30%	54.19%	60.70%
GO	141.24	138.60	31.74	23.86	63.59	67.16	23.59%	18.06%	76.41%	81.94%
MT	143.86	141.55	25.44	21.35	68.61	69.94	18.56%	15.83%	81.44%	84.17%
MS	128.69	132.11	31.78	19.07	56.07	66.18	25.92%	15.15%	74.08%	84.85%
MG	139.64	137.71	65.29	48.58	41.71	51.12	49.07%	37.02%	50.93%	62.98%
PR	141.17	138.95	78.84	59.53	34.19	45.04	58.61%	44.96%	41.39%	55.04%
RJ	108.12	113.47	33.32	20.09	43.65	55.12	32.34%	18.58%	67.66%	81.42%
RS	92.93	93.87	0.00	0.00	55.44	56.00	0.00%	0.00%	0.00%	0.00%
SP	135.54	138.53	68.86	54.52	37.02	47.83	53.32%	41.30%	46.68%	58.70%
TOTAL	136.59	137.88	60.47	46.25	42.88	52.62	46.46%	35.21%	53.54%	64.79%

Source: UNICA. Note: ¹ - thousand tons; ² - million liters; ³ - kg of TRS/ton. of sugarcane. "ATR" index was calculated excluding corn ethanol production, in the South Central.

Table 3. Sugarcane harvest by autonomous distilleries and mixed production mills in South-Central region

Mills	2017/2018	2018/2019
Mixed production mills		
Sugarcane ¹	510,282	462,190
Sugar ¹	36,060	26,510
Anhydrous ethanol ²	8,109	6,759
Hydrous ethanol ²	10,480	14,592
Total ethanol ²	18,589	21,351
Distilleries		
Sugarcane ¹	86,047	110,979
Sugar ¹	0	0
Anhydrous ethanol ²	2,310	2,383
Hydrous ethanol ²	5,191	7,220
Total ethanol ²	7,500	9,602

Source: UNICA. Note: ¹ - thousand tons; ² - million liters; autonomous distilleries are plants dedicated exclusively to ethanol production; mixed production mills are dedicated to producing both ethanol and sugar.

Table 4. Bi-weekly sugarcane crushing, ACCUMULATED - results for the South-Central region

Bi-weekly period	SUGARCANE (tons)								
	São Paulo State			South-Central region			Others states		
	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)
16/04	10,584,086	13,402,788	27%	17,680,550	22,359,918	26%	7,096,464	8,957,130	26%
01/05	25,457,747	36,989,641	45%	41,944,660	60,170,442	43%	16,486,913	23,180,801	41%
16/05	49,314,428	63,156,228	28%	80,518,063	102,954,201	28%	31,203,635	39,797,973	28%
01/06	67,787,946	83,295,321	23%	112,208,931	135,588,401	21%	44,420,985	52,293,080	18%
16/06	92,053,836	109,475,311	19%	151,715,839	178,111,024	17%	59,662,003	68,635,713	15%
01/07	121,083,003	136,314,564	13%	199,430,685	223,647,961	12%	78,347,682	87,333,397	11%
16/07	149,736,601	162,753,548	9%	247,430,421	268,861,504	9%	97,693,820	106,107,956	9%
01/08	180,019,004	190,517,898	6%	298,337,675	316,527,666	6%	118,318,671	126,009,768	7%
16/08	207,303,679	209,542,030	1%	343,773,899	350,218,389	2%	136,470,220	140,676,359	3%
01/09	229,603,936	235,213,295	2%	382,849,503	393,741,844	3%	153,245,567	158,528,549	3%
16/09	257,055,881	258,366,051	1%	428,322,613	432,510,774	1%	171,266,732	174,144,723	2%
01/10	281,558,230	274,053,864	-3%	468,782,591	460,342,883	-2%	187,224,361	186,289,019	0%
16/10	300,974,632	288,496,504	-4%	501,302,431	485,970,620	-3%	200,327,799	197,474,116	-1%
01/11	318,626,608	301,999,960	-5%	531,446,657	510,949,718	-4%	212,820,049	208,949,758	-2%
16/11	332,800,144	314,590,211	-5%	554,896,397	532,411,847	-4%	222,096,253	217,821,636	-2%
01/12	341,369,553	322,396,771	-6%	570,167,275	547,052,694	-4%	228,797,722	224,655,923	-2%
16/12	348,098,812	328,578,949	-6%	580,683,875	559,966,043	-4%	232,585,063	231,387,094	-1%
01/01	349,651,376	329,251,940	-6%	583,239,928	562,512,021	-4%	233,588,552	233,260,081	0%
16/01	349,653,193	329,346,290	-6%	583,406,350	563,068,246	-3%	233,753,157	233,721,956	0%
01/02	349,676,954	329,425,010	-6%	583,827,115	563,631,669	-3%	234,150,161	234,206,659	0%
16/02	349,781,517	329,489,739	-6%	584,403,893	563,911,578	-4%	234,622,376	234,421,839	0%
01/03	349,865,021	329,489,739	-6%	585,134,831	564,454,948	-4%	235,269,810	234,965,209	0%
16/03	352,035,767	330,007,282	-6%	588,555,862	566,046,418	-4%	236,520,095	236,039,136	0%
01/04	357,142,342	333,294,057	-7%	596,329,679	573,124,636	-4%	239,187,337	239,830,579	0%

Source: UNICA.

Table 5. Bi-weekly sugar production, ACCUMULATED - results for the South-Central region

Bi-weekly period	SUGAR (tons)								
	São Paulo State			South-Central region			Others states		
	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)
16/04	499,152	476,363	-5%	707,217	712,543	1%	208,065	236,180	14%
01/05	1,288,587	1,587,271	23%	1,839,645	2,250,044	22%	551,058	662,773	20%
16/05	2,774,749	2,935,815	6%	3,955,364	4,156,997	5%	1,180,615	1,221,182	3%
01/06	3,950,378	3,923,225	-1%	5,714,333	5,503,123	-4%	1,763,955	1,579,898	-10%
16/06	5,625,402	5,344,751	-5%	8,103,848	7,488,581	-8%	2,478,446	2,143,830	-14%
01/07	7,663,597	6,922,754	-10%	11,088,209	9,775,691	-12%	3,424,612	2,852,937	-17%
16/07	9,764,159	8,575,229	-12%	14,202,469	12,171,256	-14%	4,438,310	3,596,027	-19%
01/08	12,087,724	10,366,731	-14%	17,627,026	14,793,246	-16%	5,539,302	4,426,515	-20%
16/08	14,250,383	11,501,081	-19%	20,796,904	16,504,265	-21%	6,546,521	5,003,184	-24%
01/09	15,925,368	13,145,623	-17%	23,342,126	18,887,108	-19%	7,416,758	5,741,485	-23%
16/09	18,067,140	14,640,512	-19%	26,479,524	21,044,700	-21%	8,412,384	6,404,188	-24%
01/10	20,042,414	15,487,288	-23%	29,338,380	22,334,076	-24%	9,295,966	6,846,788	-26%
16/10	21,398,328	16,228,007	-24%	31,328,596	23,457,265	-25%	9,930,268	7,229,258	-27%
01/11	22,697,049	16,860,528	-26%	33,219,435	24,416,874	-26%	10,522,386	7,556,346	-28%
16/11	23,561,654	17,476,919	-26%	34,474,088	25,303,095	-27%	10,912,434	7,826,176	-28%
01/12	24,031,437	17,820,436	-26%	35,201,979	25,835,926	-27%	11,170,542	8,015,490	-28%
16/12	24,363,330	18,063,798	-26%	35,713,229	26,267,487	-26%	11,349,899	8,203,689	-28%
01/01	24,430,763	18,085,067	-26%	35,829,362	26,340,984	-26%	11,398,599	8,255,917	-28%
16/01	24,430,764	18,086,831	-26%	35,832,191	26,353,907	-26%	11,401,427	8,267,076	-27%
01/02	24,430,765	18,087,252	-26%	35,835,985	26,359,265	-26%	11,405,220	8,272,013	-27%
16/02	24,432,455	18,087,932	-26%	35,840,607	26,360,912	-26%	11,408,152	8,272,980	-27%
01/03	24,434,093	18,087,932	-26%	35,845,626	26,362,141	-26%	11,411,533	8,274,209	-27%
16/03	24,467,170	18,093,243	-26%	35,893,282	26,371,219	-27%	11,426,112	8,277,976	-28%
01/04	24,591,393	18,172,064	-26%	36,059,507	26,510,052	-26%	11,468,114	8,337,988	-27%

Source: UNICA.

Table 6. Bi-weekly ethanol production, ACCUMULATED - results for the South-Central region

Bi-weekly period	TOTAL ETHANOL (m ³)								
	São Paulo State			South-Central region			Others states		
	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)
16/04	351,700	542,561	54%	686,657	998,189	45%	334,957	455,628	36%
01/05	851,267	1,540,178	81%	1,623,057	2,756,550	70%	771,790	1,216,372	58%
16/05	1,645,530	2,703,540	64%	3,110,451	4,838,770	56%	1,464,921	2,135,230	46%
01/06	2,249,671	3,706,296	65%	4,316,001	6,596,358	53%	2,066,330	2,890,062	40%
16/06	3,045,738	4,913,509	61%	5,826,903	8,754,024	50%	2,781,165	3,840,515	38%
01/07	3,987,819	6,183,008	55%	7,628,425	11,113,644	46%	3,640,606	4,930,636	35%
16/07	4,944,996	7,450,465	51%	9,521,663	13,519,105	42%	4,576,667	6,068,640	33%
01/08	5,981,669	8,823,358	48%	11,610,414	16,143,700	39%	5,628,745	7,320,342	30%
16/08	6,965,294	9,821,100	41%	13,565,781	18,126,934	34%	6,600,487	8,305,834	26%
01/09	7,813,190	11,103,330	42%	15,351,019	20,591,287	34%	7,537,829	9,487,957	26%
16/09	8,889,197	12,296,715	38%	17,463,247	22,856,313	31%	8,574,050	10,559,598	23%
01/10	9,941,160	13,109,542	32%	19,500,482	24,498,651	26%	9,559,322	11,389,109	19%
16/10	10,743,778	13,840,747	29%	21,085,147	25,976,922	23%	10,341,369	12,136,175	17%
01/11	11,532,808	14,508,587	26%	22,661,374	27,384,698	21%	11,128,566	12,876,111	16%
16/11	12,086,945	15,060,358	25%	23,731,610	28,476,281	20%	11,644,665	13,415,923	15%
01/12	12,477,467	15,405,428	23%	24,533,800	29,224,120	19%	12,056,333	13,818,692	15%
16/12	12,773,124	15,712,957	23%	25,033,430	29,927,100	20%	12,260,306	14,214,143	16%
01/01	12,863,285	15,758,949	23%	25,222,823	30,140,479	19%	12,359,538	14,381,530	16%
16/01	12,864,278	15,763,090	23%	25,265,156	30,212,538	20%	12,400,878	14,449,448	17%
01/02	12,867,871	15,765,562	23%	25,332,617	30,293,585	20%	12,464,746	14,528,023	17%
16/02	12,875,040	15,771,771	22%	25,402,630	30,354,897	19%	12,527,590	14,583,126	16%
01/03	12,880,968	15,773,638	22%	25,477,806	30,428,951	19%	12,596,838	14,655,313	16%
16/03	12,970,617	15,797,097	22%	25,663,092	30,570,844	19%	12,692,475	14,773,747	16%
01/04	13,222,807	15,944,467	21%	26,089,458	30,953,328	19%	12,866,651	15,008,861	17%

Source: UNICA. Note: data include the volume of reprocessed ethanol and corn ethanol production.

Table 7. Bi-weekly anhydrous ethanol production, ACCUMULATED - results for the South-Central region

Bi-weekly period	ANHYDROUS ETHANOL (m ³)								
	São Paulo State			South-Central region			Others states		
	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)
16/04	92,969	76,638	-18%	162,387	136,867	-16%	69,418	60,229	-13%
01/05	285,301	327,288	15%	496,193	582,645	17%	210,892	255,357	21%
16/05	664,883	706,385	6%	1,139,153	1,240,490	9%	474,270	534,105	13%
01/06	974,460	1,055,816	8%	1,692,993	1,787,578	6%	718,533	731,762	2%
16/06	1,376,947	1,469,978	7%	2,387,476	2,488,157	4%	1,010,529	1,018,179	1%
01/07	1,845,524	1,947,458	6%	3,221,162	3,287,365	2%	1,375,638	1,339,907	-3%
16/07	2,314,464	2,397,750	4%	4,067,108	4,078,100	0%	1,752,644	1,680,350	-4%
01/08	2,833,121	2,898,334	2%	5,006,690	4,942,355	-1%	2,173,569	2,044,021	-6%
16/08	3,312,822	3,262,606	-2%	5,869,440	5,574,326	-5%	2,556,618	2,311,720	-10%
01/09	3,728,658	3,720,362	0%	6,625,568	6,350,680	-4%	2,896,910	2,630,318	-9%
16/09	4,229,318	4,120,032	-3%	7,512,322	7,047,334	-6%	3,283,004	2,927,302	-11%
01/10	4,744,492	4,412,606	-7%	8,408,657	7,541,571	-10%	3,664,165	3,128,965	-15%
16/10	5,146,898	4,672,807	-9%	9,094,173	7,997,102	-12%	3,947,275	3,324,295	-16%
01/11	5,536,038	4,898,263	-12%	9,741,306	8,404,160	-14%	4,205,268	3,505,897	-17%
16/11	5,820,522	5,090,104	-13%	10,206,037	8,761,893	-14%	4,385,515	3,671,789	-16%
01/12	6,004,313	5,190,985	-14%	10,506,721	8,982,710	-15%	4,502,408	3,791,725	-16%
16/12	6,106,760	5,227,761	-14%	10,650,083	9,071,251	-15%	4,543,323	3,843,490	-15%
01/01	6,119,162	5,239,808	-14%	10,656,233	9,112,474	-14%	4,537,071	3,872,666	-15%
16/01	6,114,799	5,243,432	-14%	10,658,043	9,148,338	-14%	4,543,244	3,904,906	-14%
01/02	6,081,953	5,245,659	-14%	10,608,998	9,187,966	-13%	4,527,045	3,942,307	-13%
16/02	6,032,572	5,228,434	-13%	10,540,134	9,142,474	-13%	4,507,562	3,914,040	-13%
01/03	6,011,419	5,198,563	-14%	10,505,907	9,107,206	-13%	4,494,488	3,908,643	-13%
16/03	5,970,373	5,183,310	-13%	10,435,986	9,102,050	-13%	4,465,613	3,918,740	-12%
01/04	5,963,133	5,201,595	-13%	10,418,983	9,141,368	-12%	4,455,850	3,939,773	-12%

Source: UNICA. Note: data include the volume of reprocessed ethanol and corn ethanol production.

Table 8. Bi-weekly hydrous ethanol production, ACCUMULATED - results for the South-Central region

Bi-weekly period	HYDROUS ETHANOL (m ³)								
	São Paulo State			South-Central region			Others states		
	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)	2017/2018	2018/2019	Var. (%)
16/04	258,731	465,923	80%	524,270	861,322	64%	265,539	395,399	49%
01/05	565,966	1,212,890	114%	1,126,864	2,173,905	93%	560,898	961,015	71%
16/05	980,647	1,997,155	104%	1,971,298	3,598,280	83%	990,651	1,601,125	62%
01/06	1,275,211	2,650,480	108%	2,623,008	4,808,780	83%	1,347,797	2,158,300	60%
16/06	1,668,791	3,443,531	106%	3,439,427	6,265,867	82%	1,770,636	2,822,336	59%
01/07	2,142,295	4,235,550	98%	4,407,263	7,826,279	78%	2,264,968	3,590,729	59%
16/07	2,630,532	5,052,715	92%	5,454,555	9,441,005	73%	2,824,023	4,388,290	55%
01/08	3,148,548	5,925,024	88%	6,603,724	11,201,345	70%	3,455,176	5,276,321	53%
16/08	3,652,472	6,558,494	80%	7,696,341	12,552,608	63%	4,043,869	5,994,114	48%
01/09	4,084,532	7,382,968	81%	8,725,451	14,240,607	63%	4,640,919	6,857,639	48%
16/09	4,659,879	8,176,683	75%	9,950,925	15,808,979	59%	5,291,046	7,632,296	44%
01/10	5,196,668	8,696,936	67%	11,091,825	16,957,080	53%	5,895,157	8,260,144	40%
16/10	5,596,880	9,167,940	64%	11,990,974	17,979,820	50%	6,394,094	8,811,880	38%
01/11	5,996,770	9,610,324	60%	12,920,068	18,980,538	47%	6,923,298	9,370,214	35%
16/11	6,266,423	9,970,254	59%	13,525,573	19,714,388	46%	7,259,150	9,744,134	34%
01/12	6,473,154	10,214,443	58%	14,027,079	20,241,410	44%	7,553,925	10,026,967	33%
16/12	6,666,364	10,485,196	57%	14,383,347	20,855,849	45%	7,716,983	10,370,653	34%
01/01	6,744,123	10,519,141	56%	14,566,590	21,028,005	44%	7,822,467	10,508,864	34%
16/01	6,749,479	10,519,658	56%	14,607,113	21,064,200	44%	7,857,634	10,544,542	34%
01/02	6,785,918	10,519,903	55%	14,723,619	21,105,619	43%	7,937,701	10,585,716	33%
16/02	6,842,468	10,543,337	54%	14,862,496	21,212,423	43%	8,020,028	10,669,086	33%
01/03	6,869,549	10,575,075	54%	14,971,899	21,321,745	42%	8,102,350	10,746,670	33%
16/03	7,000,244	10,613,787	52%	15,227,106	21,468,794	41%	8,226,862	10,855,007	32%
01/04	7,259,674	10,742,872	48%	15,670,475	21,811,960	39%	8,410,801	11,069,088	32%

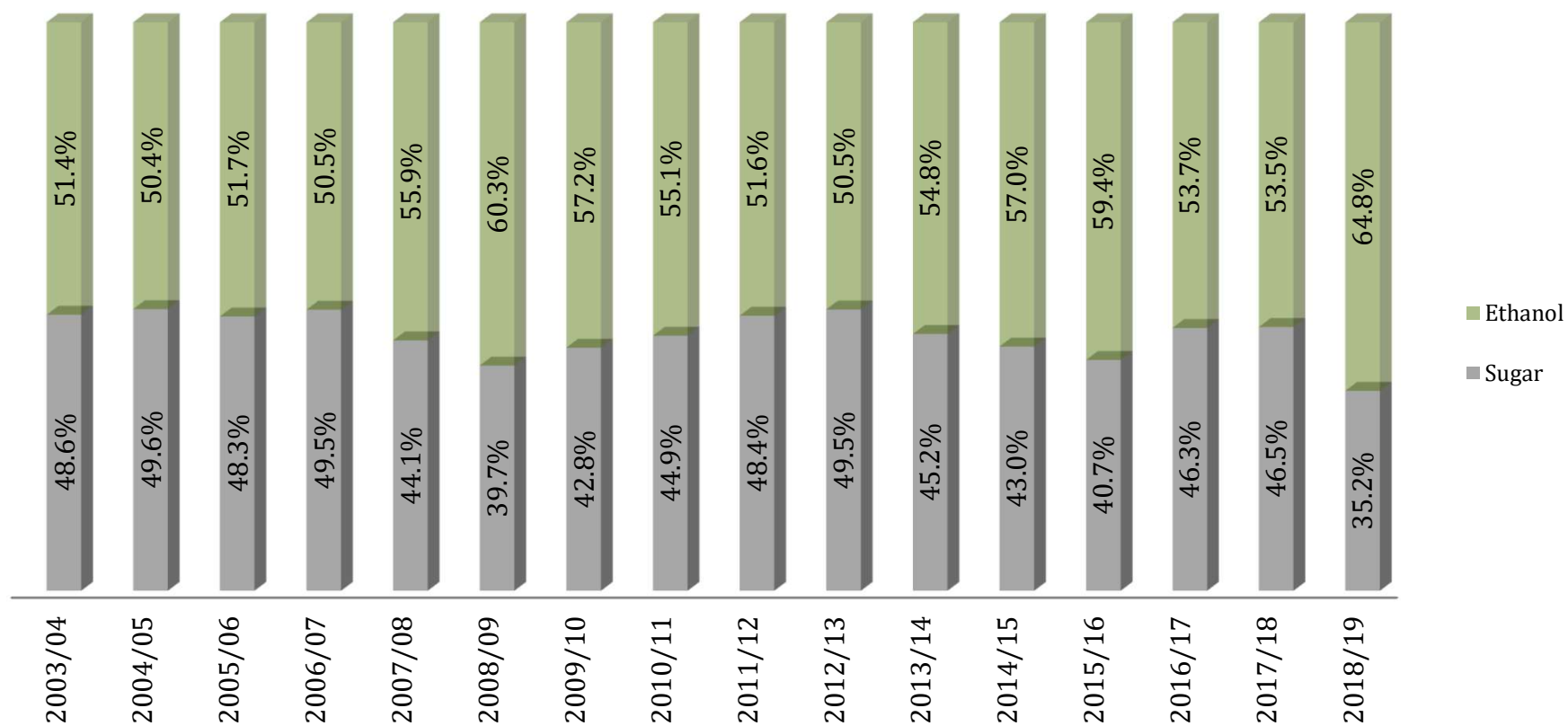
Source: UNICA. Note: data include the volume of reprocessed ethanol and corn ethanol production.

Table 9. Bi-weekly ethanol mix (%) South-Central region

Bi-weekly period	ETHANOL MIX (%)					
	São Paulo State		South-Central region		Others states	
	2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019
16/04	53.23	64.67	60.63	68.65	71.46	74.46
01/05	50.68	59.18	56.94	64.45	66.68	73.39
16/05	46.56	58.29	53.19	63.52	63.80	72.01
01/06	45.62	62.21	52.53	67.55	62.20	76.62
16/06	43.69	57.92	50.63	63.56	61.71	72.77
01/07	42.99	56.63	49.48	62.31	59.44	70.81
16/07	42.64	55.44	49.59	61.69	59.70	70.79
01/08	42.13	55.42	49.65	61.65	60.48	70.53
16/08	42.59	58.80	49.92	64.96	60.71	72.92
01/09	45.23	55.84	53.03	62.36	63.13	71.67
16/09	45.01	56.40	52.02	62.68	62.34	71.82
01/10	46.49	60.89	53.45	66.98	63.94	74.56
16/10	49.14	61.55	56.12	67.70	66.09	75.34
01/11	49.78	63.11	57.15	69.87	67.59	77.76
16/11	51.14	59.21	57.62	65.92	67.26	75.24
01/12	57.53	61.90	63.42	68.41	70.80	75.89
16/12	59.09	66.98	59.82	71.28	61.11	75.42

Source: UNICA. Note: ethanol mix was calculated excluding corn ethanol production registered.

Use of sugarcane in South-Central region. Values in %.



Source: UNICA.

Table 10. Bi-weekly sugarcane quality index (kg of TRS per ton of sugarcane) for South-Central region

Bi-weekly period	kg of TRS/ ton of sugarcane					
	São Paulo State		South-Central region		Others states	
	2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019
16/04	105.83	105.57	106.63	106.68	107.82	108.33
01/05	112.94	121.10	113.76	120.05	115.05	118.31
16/05	122.34	129.67	122.98	128.24	124.01	125.98
01/06	122.83	136.18	122.70	133.39	122.52	128.89
16/06	128.64	135.43	128.58	134.49	128.48	132.98
01/07	129.26	142.29	129.94	139.84	131.01	136.33
16/07	134.12	147.19	135.07	145.13	136.47	142.23
01/08	139.16	151.92	140.21	150.53	141.76	148.58
16/08	144.90	151.88	146.22	152.10	148.20	152.39
01/09	143.92	152.25	145.53	152.64	147.67	153.19
16/09	148.91	155.42	150.92	156.48	153.97	158.06
01/10	158.10	144.85	159.30	147.26	161.14	150.36
16/10	144.09	140.00	146.39	142.40	149.80	145.50
01/11	153.75	133.28	153.64	133.83	153.49	134.49
16/11	131.02	125.95	132.51	127.18	134.78	128.92
01/12	135.48	121.21	136.77	120.92	138.41	120.59
16/12	126.52	125.13	126.98	122.13	127.81	119.38

Source: UNICA. Note: data exclude corn ethanol production.

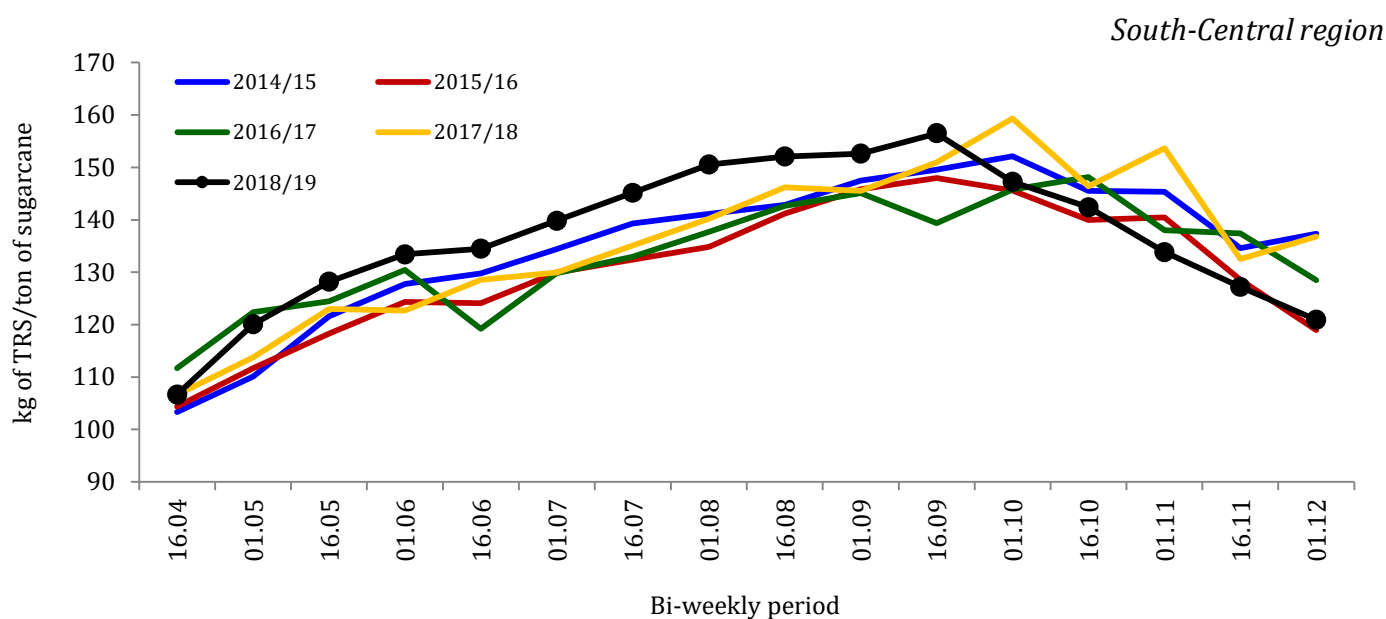


Table 11. Historical series of sugarcane quality (kg of TRS per ton of sugarcane) and the number of new mills and closed mills, per harvest season, in South-Central region.

Harvest season	Average TRS (kg TRS/ ton of sugarcane)	Number of new mills	Number of closed mills
2007/2008	143.63	22	3
2008/2009	140.11	29	3
2009/2010	129.36	21	3
2010/2011	140.88	10	4
2011/2012	137.64	5	16
2012/2013	135.46	2	13
2013/2014	133.27	2	10
2014/2015	136.45	0	9
2015/2016	130.50	2	8
2016/2017	133.03	1	6
2017/2018	136.59	1	4
2018/2019	137.89	1	12

Source: UNICA.

Table 12. Ethanol sales by mills in South-Central region, per ethanol type and destination (m³).

Products	Month	Total		External market		Domestic market	
		2017/2018	2018/2019	2017/2018	2018/2019	2017/2018	2018/2019
Total ethanol	Apr	1,732,294	2,042,426	109,043	47,758	1,623,251	1,994,668
	May	2,129,618	2,008,361	124,756	112,230	2,004,862	1,896,131
	Jun	2,131,144	2,647,446	149,465	104,213	1,981,679	2,543,233
	Jul	2,139,588	2,722,844	185,828	279,421	1,953,760	2,443,423
	Aug	2,396,846	2,962,428	194,116	215,323	2,202,730	2,747,105
	Sep	2,332,547	2,758,241	157,141	179,321	2,175,406	2,578,920
	Oct	2,475,397	2,898,920	167,703	154,116	2,307,694	2,744,804
	Nov	2,344,081	2,629,452	89,953	104,245	2,254,128	2,525,207
	Dec	2,322,908	2,585,135	83,171	108,199	2,239,737	2,476,936
	Jan	2,241,137	2,705,536	94,156	90,434	2,146,981	2,615,102
	Feb	1,967,722	2,465,240	76,474	85,424	1,891,248	2,379,816
	Mar	2,228,669	2,637,741	73,194	154,769	2,155,475	2,482,972
	Total	26,441,951	31,063,770	1,505,000	1,635,453	24,936,951	29,428,317
Anhydrous ethanol	Apr	768,832	681,762	107,558	35,779	661,274	645,983
	May	916,958	613,593	77,653	56,390	839,305	557,203
	Jun	945,011	903,496	105,077	66,560	839,934	836,936
	Jul	976,725	901,675	141,656	179,439	835,069	722,236
	Aug	910,830	906,426	83,865	143,055	826,965	763,371
	Sep	899,613	753,336	116,138	90,022	783,475	663,314
	Oct	931,347	811,846	136,045	95,410	795,302	716,436
	Nov	842,733	753,192	55,554	62,746	787,179	690,446
	Dec	862,983	750,945	53,460	57,086	809,523	693,859
	Jan	851,941	827,689	87,125	42,976	764,816	784,713
	Feb	777,839	718,554	57,508	61,360	720,331	657,194
	Mar	844,923	944,708	71,047	130,968	773,876	813,740
	Total	10,529,735	9,567,222	1,092,686	1,021,791	9,437,049	8,545,431
Hydrous ethanol	Apr	963,462	1,360,664	1,485	11,979	961,977	1,348,685
	May	1,212,660	1,394,768	47,103	55,840	1,165,557	1,338,928
	Jun	1,186,133	1,743,950	44,388	37,653	1,141,745	1,706,297
	Jul	1,162,863	1,821,169	44,172	99,982	1,118,691	1,721,187
	Aug	1,486,016	2,056,002	110,251	72,268	1,375,765	1,983,734
	Sep	1,432,934	2,004,905	41,003	89,299	1,391,931	1,915,606
	Oct	1,544,050	2,087,074	31,658	58,706	1,512,392	2,028,368
	Nov	1,501,348	1,876,260	34,399	41,499	1,466,949	1,834,761
	Dec	1,459,925	1,834,190	29,711	51,113	1,430,214	1,783,077
	Jan	1,389,196	1,877,847	7,031	47,458	1,382,165	1,830,389
	Feb	1,189,883	1,746,686	18,966	24,064	1,170,917	1,722,622
	Mar	1,383,746	1,693,033	2,147	23,801	1,381,599	1,669,232
	Total	15,912,216	21,496,548	412,314	613,662	15,499,902	20,882,886

Source: UNICA. Note: data includes ethanol for fuel, industrial purposes, beverage production and the volume destined to own consumption by mills. it also includes the imports by producers and non-producers, beyond the amount used for transfer duct ethanol ballast.

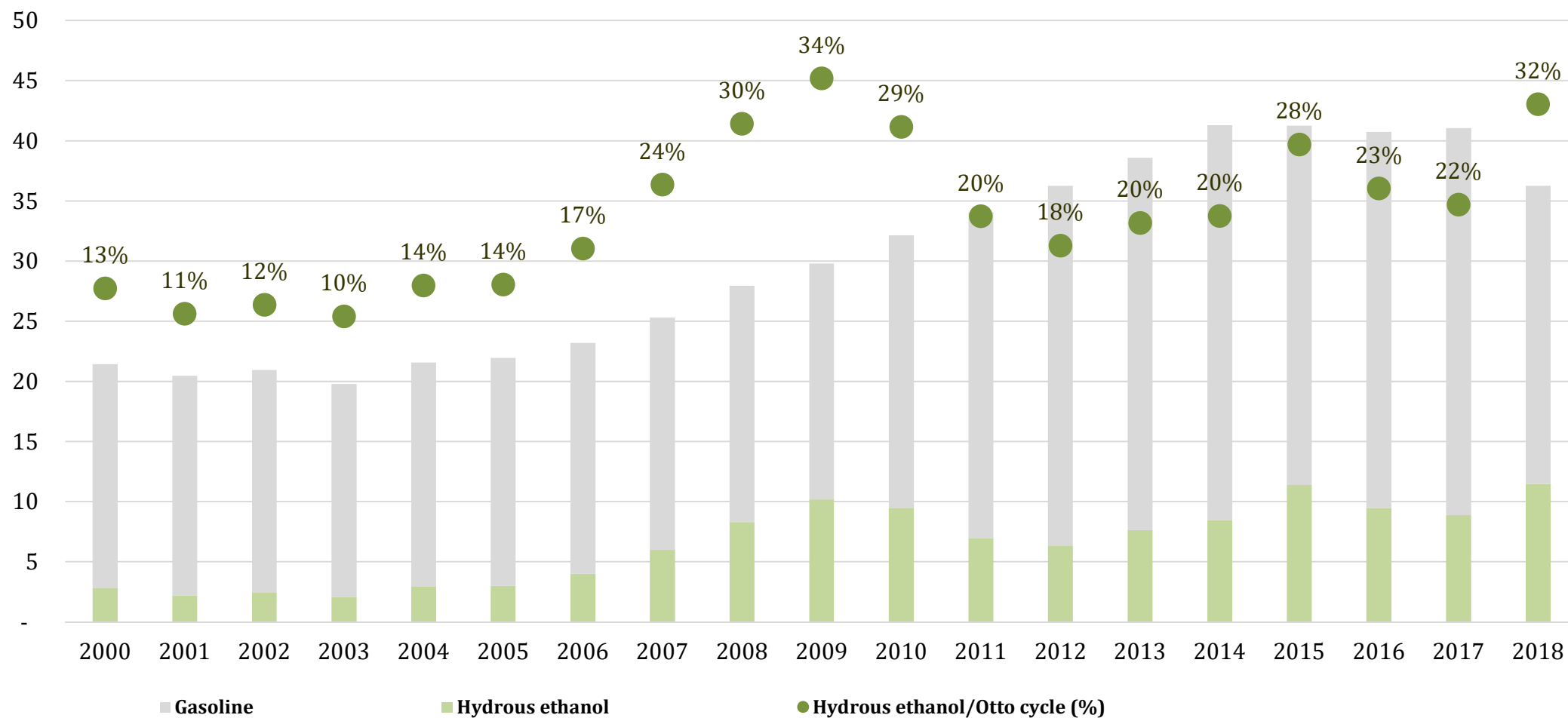
Table 13. Monthly sales by mills in South-Central region - ethanol for other uses (m³)

Product	Month	Total				Anhydrous ethanol				Hydrous ethanol			
		2017/2018	2018/2019		Var. (%)	2017/2018	2018/2019		Var. (%)	2017/2018	2018/2019		Var. (%)
Ethanol for other uses	Apr	59,104	73,456	↑	24.28%	10,224	13,453	↑	31.58%	48,880	60,003	↑	22.76%
	May	88,997	65,964	↓	-25.88%	11,816	10,180	↓	-13.85%	77,181	55,784	↓	-27.72%
	Jun	79,526	88,150	↑	10.84%	11,509	13,782	↑	19.75%	68,017	74,368	↑	9.34%
	Jul	77,826	89,556	↑	15.07%	9,694	12,583	↑	29.80%	68,132	76,973	↑	12.98%
	Aug	84,650	93,024	↑	9.89%	9,879	11,744	↑	18.88%	74,771	81,280	↑	8.71%
	Sep	81,598	81,745	↑	0.18%	9,090	9,594	↑	5.54%	72,508	72,151	↓	-0.49%
	Oct	86,545	93,879	↑	8.47%	11,962	10,785	↓	-9.84%	74,583	83,094	↑	11.41%
	Nov	78,604	66,880	↓	-14.92%	10,939	9,993	↓	-8.65%	67,665	56,887	↓	-15.93%
	Dec	63,795	62,687	↓	-1.74%	10,183	9,208	↓	-9.57%	53,612	53,479	↓	-0.25%
	Jan	73,768	74,678	↑	1.23%	13,852	10,037	↓	-27.54%	59,916	64,641	↑	7.89%
	Feb	65,536	67,645	↑	3.22%	13,251	10,488	↓	-20.85%	52,285	57,157	↑	9.32%
	Mar	76,995	63,303	↓	-17.78%	15,659	9,747	↓	-37.75%	61,336	53,556	↓	-12.68%
Total		916,944	920,967	↑	0.44%	138,058	131,594	↓	-4.68%	778,886	789,373	↑	1.35%

Source: UNICA. Note: ethanol sales destined to the domestic market shown in Table 12, include the volume of ethanol fuel traded, ethanol for other purposes (shown in the table above), imports, losses and own use by mills, beyond the amount used for transfer duct ethanol ballast.

Ethanol participation in the fuel matrix - Region South-Central

Fuel consumption (billion liters - equivalent petrol)



Source: ANP (consumption of ethanol, anhydrous and hydrated in the Central-South region). Elaboration: UNICA. Data do not include consumption of CNG.

Table 14. Sugar exports by South-Central region of Brazil (thousand tons).

Month	Harvest season		Var. (%)
	2017/2018	2018/2019	
April	1,475	931	↓ -36.92%
May	2,251	2,000	↓ -11.13%
June	3,012	1,880	↓ -37.57%
July	2,563	1,869	↓ -27.08%
August	2,725	1,697	↓ -37.73%
September	3,485	2,483	↓ -28.74%
October	2,800	1,900	↓ -32.12%
November	2,062	1,576	↓ -23.59%
December	1,736	1,350	↓ -22.26%
January	1,388	991	↓ -28.63%
February	1,289	1,030	↓ -20.04%
March	1,619	1,002	↓ -38.14%
Total	26,405	18,709	↓ -29.15%

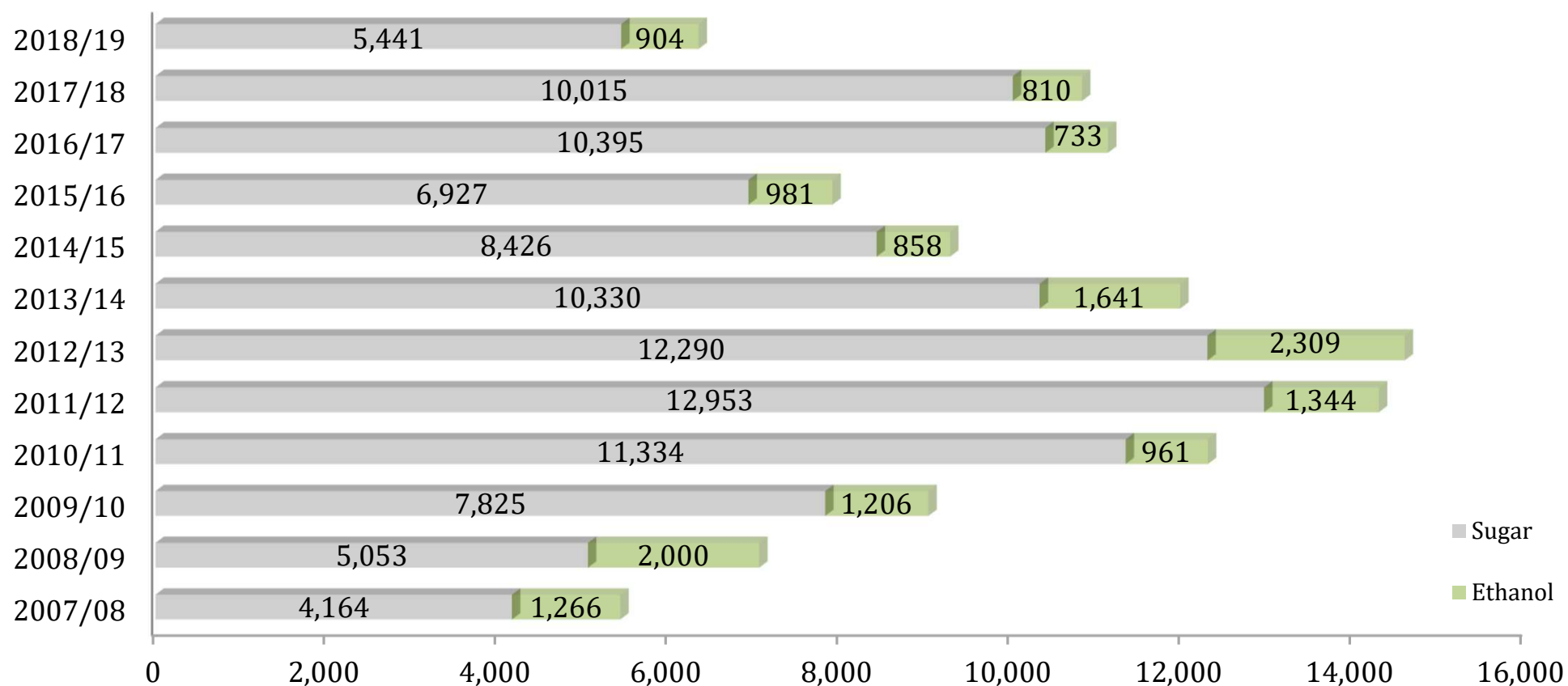
Source: Secex. Elaboration: UNICA.

Table 15. Ethanol imports by South-Central region of Brazil (m³).

Month	Harvest season		Var. (%)	
	2017/2018	2018/2019		
April	13,568	129,541	↑	0%
May	9,934	127	↓	-99%
June	63	43	↓	-32%
July	54	111	↑	
August	73	16	↓	
September	118	131	↑	
October	55	3,803	↑	
November	14,888	10,206	↓	-31%
December	19,860	59,318	↑	199%
January	45,515	91,493	↑	101%
February	48,384	8,778	↓	-82%
March	102,708	1,968	↓	-98%
Total	255,219	305,535	↑	20%
Share of ethanol imports from USA (%)	99.88%	96.88%		
Imports as a share of ethanol consumption (%)	1.15%	1.18%		

Source: Secex (for imports, considering the place of unloading) and ANP (for consumption data). Elaboration: UNICA.

Sugar and ethanol export revenues generated by Brazilian South-Central region (million US\$)



Source: Secex. Elaboration: UNICA. Note: data from South-Central region has been compiled according to the state where the exporting company is located.

Table 16. Ethanol conversion in South-Central region of Brazil (m³).

Mês	Conversion of anhydrous ethanol into hydrous ethanol		Conversion of hydrous ethanol into anhydrous ethanol	
	2017/2018	2018/2019	2017/2018	2018/2019
Apr	17.5	56.4	24.1	18.0
May	2.6	5.6	80.8	65.8
Jun	1.0	1.3	83.1	78.3
Jul	1.1	1.1	104.2	72.3
Aug	1.4	0.6	105.7	89.3
Sep	0.3	5.9	91.6	95.7
Oct	1.2	2.9	109.3	100.7
Nov	1.8	4.1	128.5	110.6
Dec	40.9	9.9	22.0	14.0
Jan	64.9	10.5	1.0	18.2
Feb	126.4	112.1	13.2	3.5
Mar	157.2	56.4	1.6	6.3
Total	416.3	266.9	765.3	672.6

Source: UNICA.

Table 17. Ethanol supply & demand balance in South-Central region of Brazil. Volume in thousand m³.

	Anhydrous ethanol	Hydrous ethanol	Total
Stock in April 1, 2017	778	442	1,220
Production during 2017/2018 harvest season - beginning in 04/01/2017*	9,424	21,812	31,236
Sales to domestic market - April 2017 to March of 2018	8,545	20,883	29,428
<i>Sales of fuel ethanol</i>	<i>8,351</i>	<i>19,911</i>	<i>28,263</i>
<i>Sales of ethanol for industrial purposes and to own consumption by mills</i>	<i>194</i>	<i>971</i>	<i>1,166</i>
Sales to external market - April 2017 to March of 2018	1,022	614	1,635
Stock in April 1, 2018	634	758	1,392

Source: UNICA. Note: *production include the volume of hydrous ethanol converted into anhydrous ethanol (vice versa), the imports by producers and non-producers, corn ethanol production and production of new crop (2016/2017) held until April 1, 2016.

Table 18. Sugar supply & demand balance in South-Central region of Brazil. Values in thousand tonns.

	2017/2018	2018/2019	Var. (%)	
Initial stock	2,388	3,101	↑	29.86%
Production	36,060	26,510	↓	-26.48%
Exports*	26,405	18,709	↓	-29.15%
Domestic market**	8,942	8,500	↓	-4.93%
Final stock	3,101	2,402	↓	-22.54%

Source: UNICA and Secex. Note: *export data provided by Secex; **domestic market calculated by the difference between the sum of the initial stock and production, minus sales to external market and the stock registered at the end of the harvest season.

Table 19. Average prices of TRS and of the sugarcane delivered by growers in São Paulo state. Nominal values.

Harvest season	Kg of TRS/ ton. of sugarcane*	R\$/ton. of sugarcane	R\$/ton. of sugarcane	
			Sugarcane destined to sugar production	Sugarcane destined to ethanol production
2007/2008	143.85	35.14	32.86	37.14
2008/2009	141.80	39.45	39.49	39.43
2009/2010	130.10	45.43	51.81	39.94
2010/2011	141.50	56.91	62.37	51.83
2011/2012	137.78	69.12	74.28	64.69
2012/2013	135.34	63.99	68.02	59.16
2013/2014	133.35	60.97	59.61	62.39
2014/2015	137.79	65.63	64.94	66.29
2015/2016	129.06	71.65	70.48	72.67
2016/2017	131.20	89.73	97.10	81.40
2017/2018	135.54	79.98	78.82	81.31
2018/2019	138.53	80.71	74.16	85.32

Source: Consecana, Orplana and UNICA. Elaboration: UNICA. Note: *TRS product - average value for the State of São Paulo.

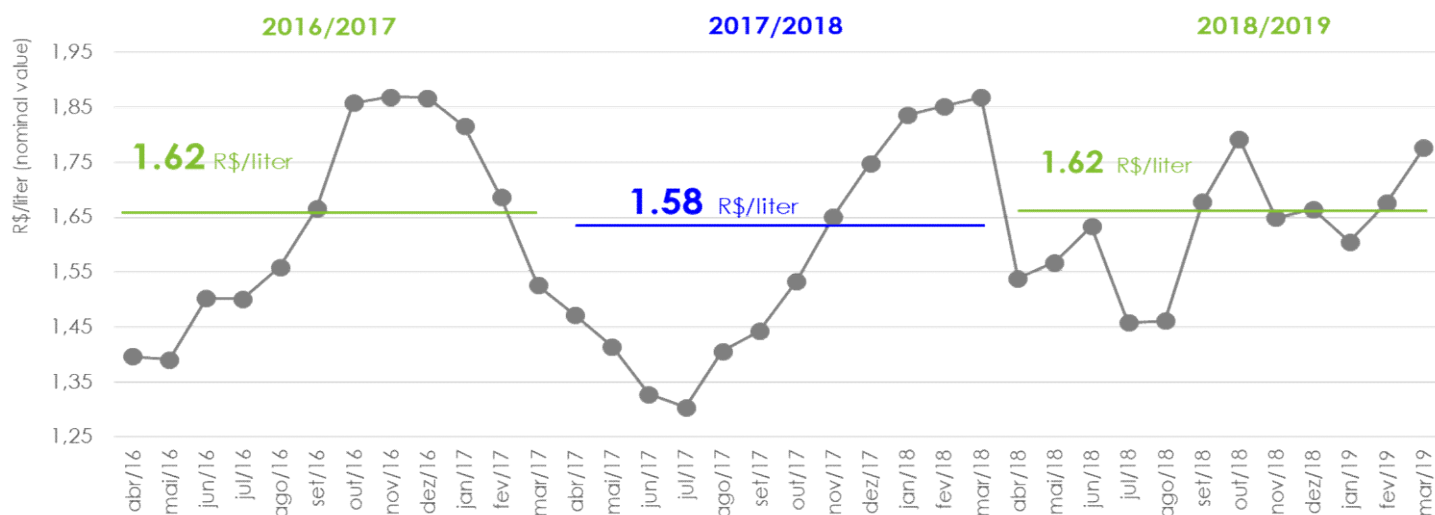
Table 20. Corn ethanol production in South Central region during 2017/2018 harvest season (m³).

Bi-weekly period	CORN ETHANOL PRODUCTION					
	Bi-weekly production			Accumulated production		
	Anhydrous	Hydrous	Total	Anhydrous	Hydrous	Total
16/04	8,558	18,268	26,826	8,558	18,268	26,826
01/05	7,918	24,124	32,042	16,476	42,392	58,868
16/05	8,726	22,546	31,272	25,202	64,938	90,140
01/06	9,732	17,056	26,788	34,934	81,994	116,928
16/06	4,471	14,804	19,275	39,405	96,798	136,203
01/07	9,256	17,654	26,910	48,661	114,452	163,113
16/07	7,800	16,887	24,687	56,461	131,339	187,800
01/08	9,925	12,943	22,868	66,386	144,282	210,668
16/08	9,424	14,942	24,366	75,810	159,224	235,034
01/09	8,930	17,389	26,319	84,740	176,613	261,353
16/09	9,443	17,008	26,451	94,183	193,621	287,804
01/10	9,864	15,717	25,581	104,047	209,338	313,385
16/10	10,128	13,515	23,643	114,175	222,853	337,028
01/11	6,038	25,581	31,619	120,213	248,434	368,647
16/11	11,419	21,706	33,125	131,632	270,140	401,772
01/12	7,693	26,803	34,496	139,325	296,943	436,268
16/12	6,876	28,961	35,837	146,201	325,904	472,105
01/01	8,635	37,120	45,755	154,836	363,024	517,860
16/01	18,036	27,791	45,827	172,872	390,815	563,687
01/02	21,836	28,963	50,799	194,708	419,778	614,486
16/02	6,084	31,676	37,760	200,792	451,454	652,246
01/03	11,342	28,703	40,045	212,134	480,157	692,291
16/03	13,786	38,975	52,761	225,920	519,132	745,052
01/04	8,362	38,017	46,379	234,282	557,149	791,431

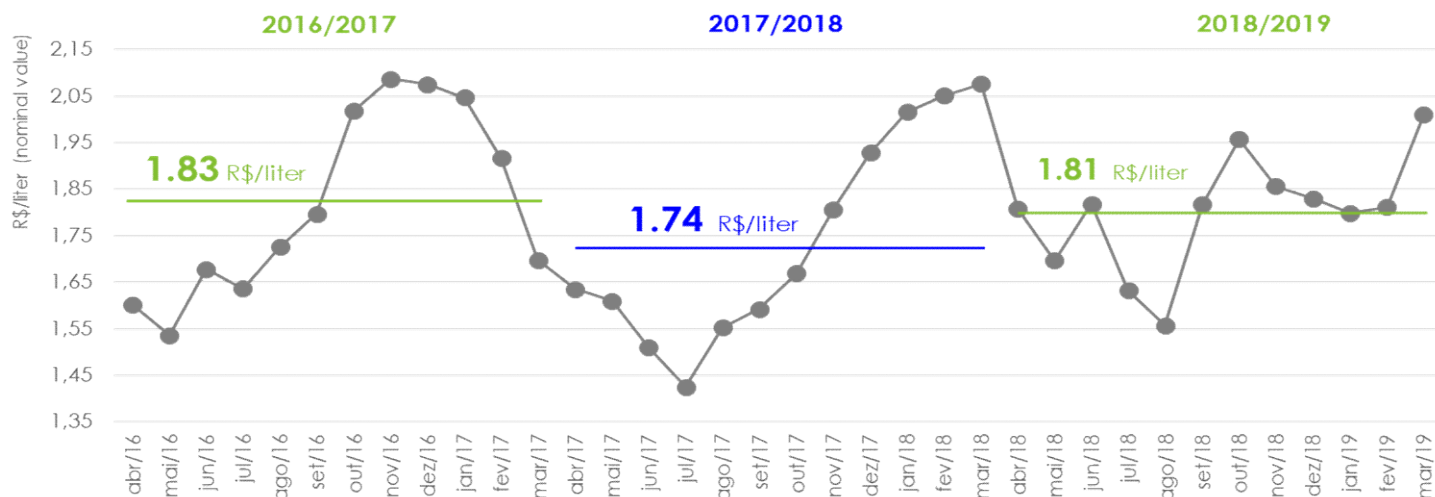
Source: UNICA.

Monthly prices received by producers in São Paulo state - ethanol

Fuel hydrous ethanol (R\$/liter)



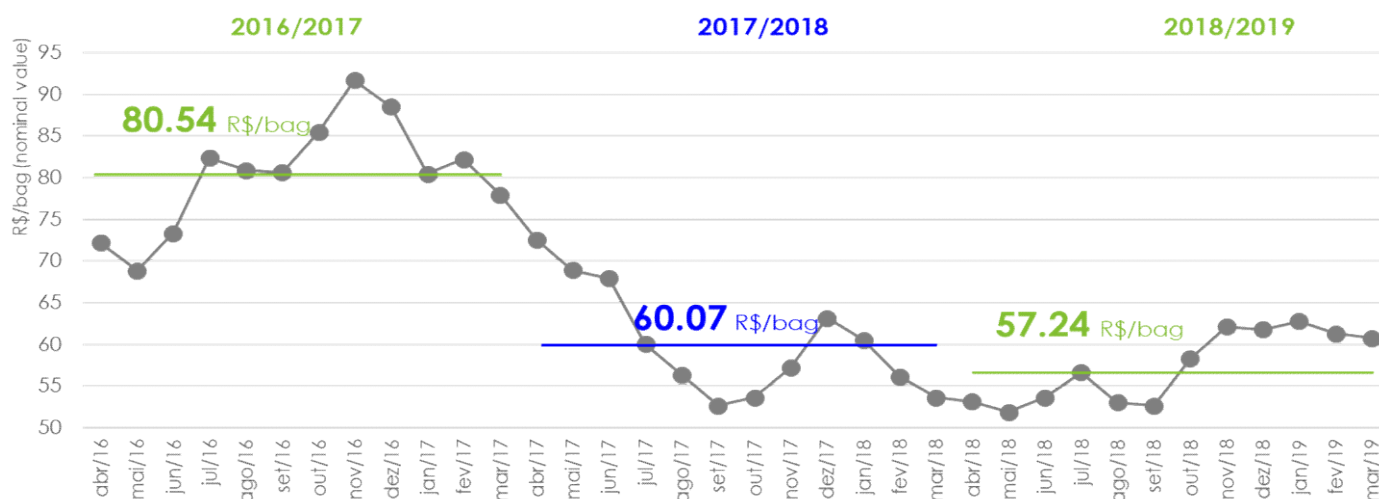
Fuel anhydrous ethanol (R\$/liter)



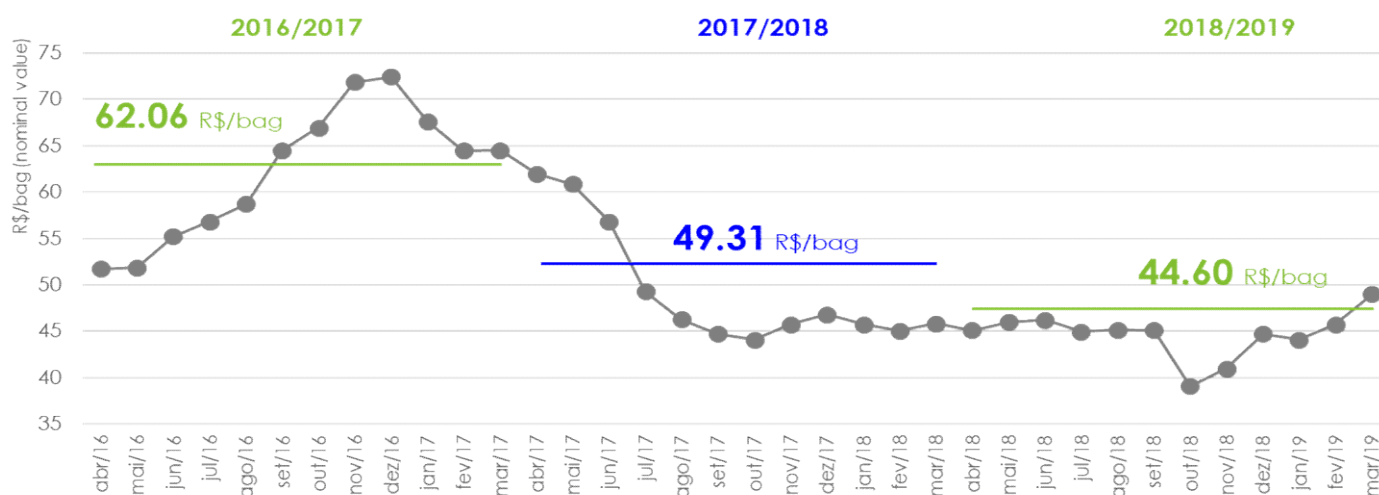
Source: CEPEA. Elaboration: UNICA. Note: prices minus freight charges and taxes; highlighted values refer to the average prices of the harvest season and they are calculated considering the trading curve published by Consecana; nominal values.

Monthly prices received by producers in São Paulo state - sugar

White sugar - domestic market (R\$/ 50 kg bag) - spot market



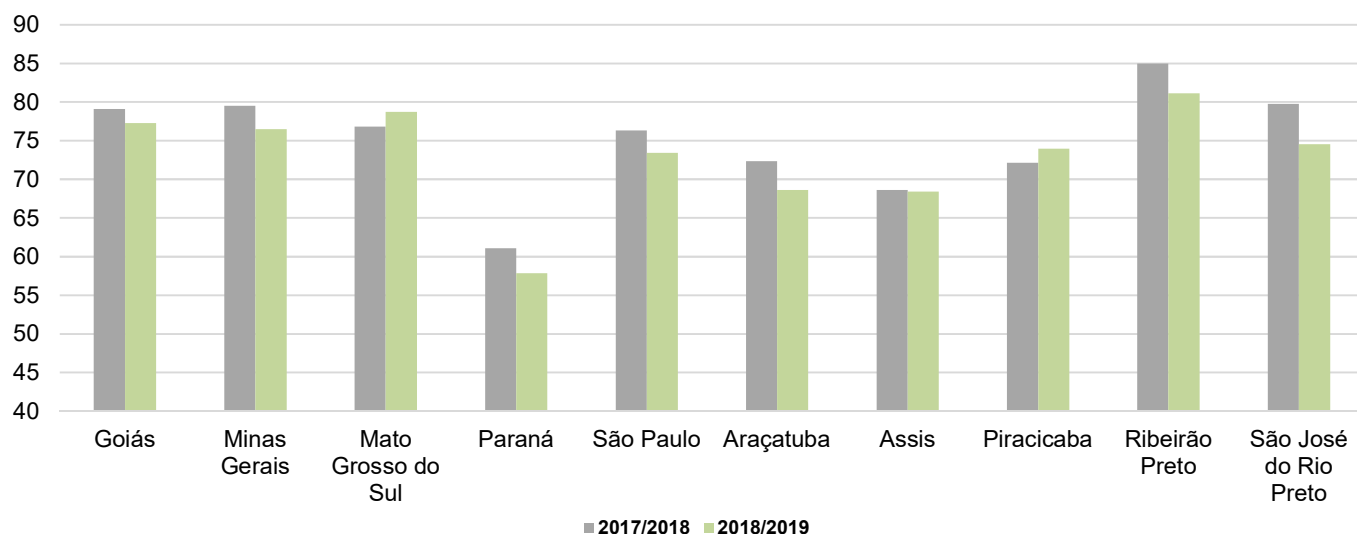
Raw sugar - external market (R\$/ 50 kg bag)



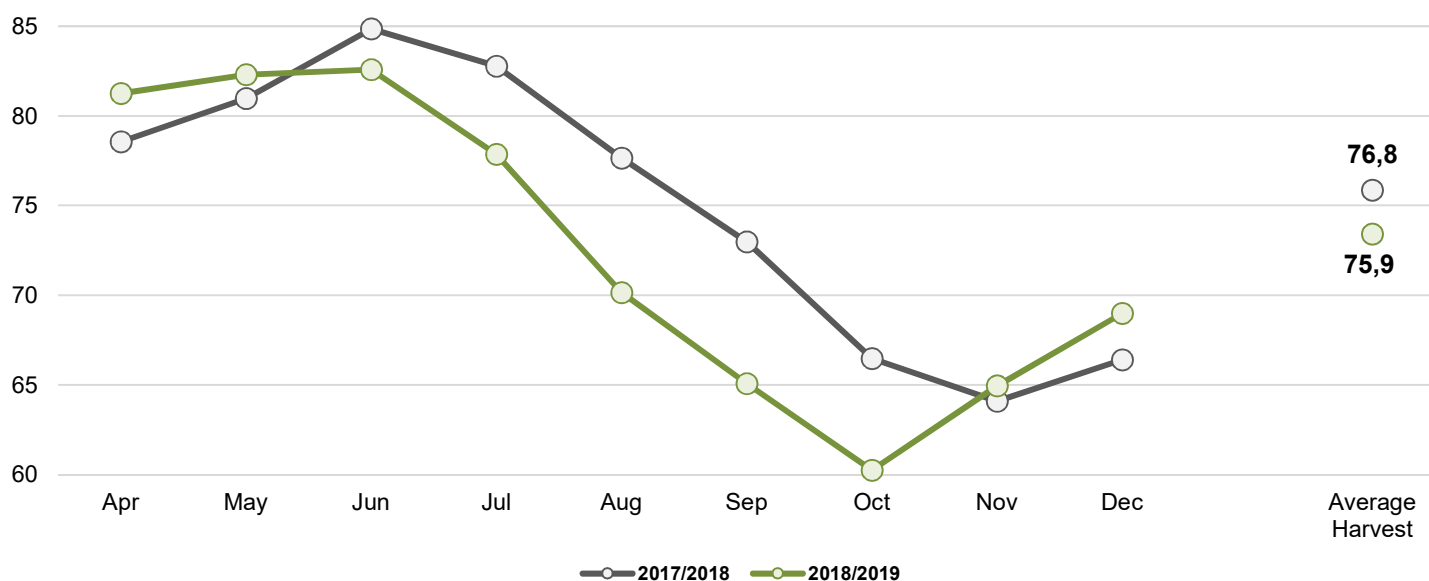
Source: CEPEA. Elaboration: UNICA. Note: prices minus freight charges but include taxes; highlighted values refer to the average prices of the harvest season and they are calculated considering the trading curve published by Consecana; nominal values.

Agricultural productivity in South-Central region of Brazil. Values in tonnes of sugarcane per hectare.

Agricultural productivity by sugarcane cutting stage - South-Central region of Brazil and regions of the State of São Paulo

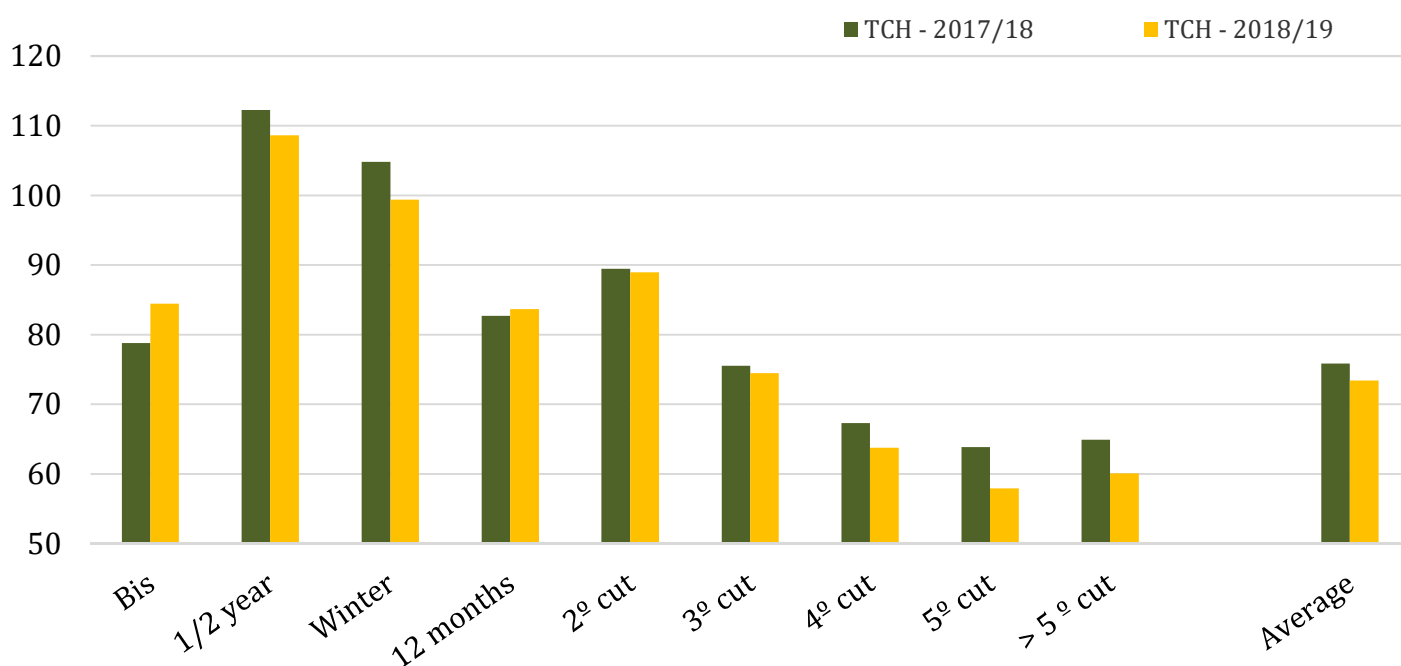


Monthly agricultural productivity - South-Central region of Brazil



Agricultural productivity in South-Central region of Brazil. Values in tonns of sugarcane per hectare.

Agricultural productivity by sugarcane cutting stage - South-Central region of Brazil



Historical average agricultural productivity, by calendar year - South-Central region of Brazil



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Data released in this report has been compiled and analyzed by UNICA, with figures provided by mills and by the following associations of producers from South-Central states:

- *Ethanol and sugar producers association in the state of Paraná (Alcopar);*
- *Bioenergy producers association of Mato Grosso do Sul (Biosul);*
- *Sugar and ethanol industries association in the state of Minas Gerais (SIAMIG);*
- *Association of ethanol industry of Goiás state (SIFAEG);*
- *Sugar and ethanol industry association of Mato Grosso (SINDALCOOL);*
- *Plants and distilleries society of Espírito Santo state (SUDES);*
- *Ethanol and sugar industry association of Rio de Janeiro (SISERJ).*

Data regarding weather and agricultural conditions has been provided by the Center for Sugarcane Technology (CTC).

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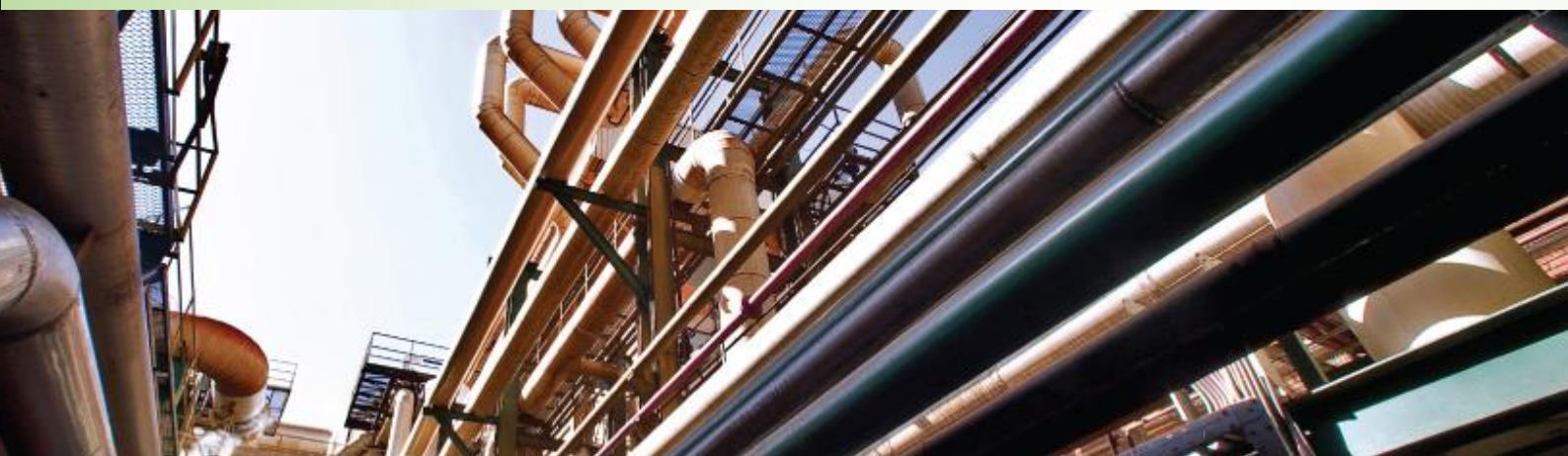
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