

Current forecast update (variation regarding the September forecast):

December 11, 2017

Total orange crop production forecast¹: 385.20 million boxes (increase of 2.98%)

Hamlin, Westin and Rubi: 77.48 million boxes (unchanged)

Other early season²: 18.02 million boxes (unchanged)

Pera Rio: 118.19 million boxes (increase of 3.20%)

Valencia and Valencia Folha Murcha: 129.22 million boxes (increase of 5.02%)

Natal: 42.29 million boxes (increase of 3.15%)

Forecast Dates 2017-2018

3rd forecast update: February 15, 2018

Final estimate: April 10, 2018

Orange production forecast update by sector and variety group – citrus belt

Month	Forecast update components				Orange production forecast update 2016-2017					
	September 2017 and December 2017 (strike-through values were presented in September, to their left are their respective values updated in December)				September/2017			December/2017		
Sector and variety group	Bearing trees	Fruits per tree at stripping ³	Fruits forecasted by box	Fruit loss from droppage forecast	By tree	By hectare	Total	By tree	By hectare	Total
	(1,000 trees)	(number)	(number)	(percentage)	(boxes/tree)	(boxes/hectare)	(1,000,000 boxes)	(boxes/tree)	(boxes/hectare)	(1,000,000 boxes)
TOTAL										
Hamlin, Westin and Rubi.....	27,308	972	277	10.00	2.84	1,235	77.48	2.84	1,235	77.48
Other early season ²	7,950	714	251	11.30	2.27	1,008	18.02	2.27	1,008	18.02
Pera Rio.....	60,235	666	253 260	17.50	1.90	913	114.52	1.96	943	118.19
Valencia and V.Folha Murcha ⁴	61,181	729	240 250	23.00 23.30	2.01	895	123.04	2.11	940	129.22
Natal.....	18,105	813	245 250	22.05 22.55	2.26	974	41.00	2.34	1,005	42.29
Average.....	(X)	753	252 259	18.09 18.50	2.14	970	(X)	2.20	999	(X)
Total.....	174,779	(X)	(X)	(X)	(X)	(X)	374.06	(X)	(X)	385.20
NORTH SECTOR										
Hamlin, Westin and Rubi.....	7,494	1,147	277	10.00	3.35	1,423	25.11	3.35	1,423	25.11
Other early season ²	1,910	709	251	11.30	2.25	1,095	4.30	2.25	1,095	4.30
Pera Rio.....	12,398	611	253 260	17.50	1.74	903	21.61	1.80	932	22.30
Valencia and V.Folha Murcha ⁴	14,317	779	240 250	23.00 23.30	2.15	947	30.77	2.26	995	32.32
Natal.....	3,171	878	245 250	22.05 22.55	2.44	980	7.75	2.52	1,011	8.00
Average.....	(X)	801	252 259	18.09 18.50	2.28	1,043	(X)	2.34	1,072	(X)
Subtotal.....	39,290	(X)	(X)	(X)	(X)	(X)	89.54	(X)	(X)	92.03
NORTHWEST SECTOR										
Hamlin, Westin and Rubi.....	2,656	823	277	10.00	2.40	1,045	6.38	2.40	1,045	6.38
Other early season ²	1,444	757	251	11.30	2.40	1,066	3.47	2.40	1,066	3.47
Pera Rio.....	8,320	588	253 260	17.50	1.68	710	13.96	1.73	733	14.41
Valencia and V.Folha Murcha ⁴	3,809	667	240 250	23.00 23.30	1.84	874	7.01	1.93	918	7.36
Natal.....	1,406	826	245 250	22.05 22.55	2.30	912	3.23	2.37	912	3.34
Average.....	(X)	673	252 259	18.09 18.50	1.93	839	(X)	1.98	861	(X)
Subtotal.....	17,635	(X)	(X)	(X)	(X)	(X)	34.05	(X)	(X)	34.96
CENTRAL SECTOR										
Hamlin, Westin and Rubi.....	7,328	905	277	10.00	2.64	1,148	19.37	2.64	1,148	19.37
Other early season ²	2,870	687	251	11.30	2.18	893	6.26	2.18	893	6.26
Pera Rio.....	17,219	672	253 260	17.50	1.92	937	33.02	1.98	967	34.08
Valencia and V.Folha Murcha ⁴	17,021	683	240 250	23.00 23.30	1.88	833	32.05	1.98	833	33.66
Natal.....	4,695	795	245 250	22.05 22.55	2.22	891	10.40	2.28	919	10.73
Average.....	(X)	723	252 259	18.09 18.50	2.06	925	(X)	2.12	953	(X)
Subtotal.....	49,133	(X)	(X)	(X)	(X)	(X)	101.10	(X)	(X)	104.10
SOUTH SECTOR										
Hamlin, Westin and Rubi.....	4,954	860	277	10.00	2.51	1,099	12.44	2.51	1,099	12.44
Other early season ²	0,556	593	251	11.30	1.88	741	1.05	1.88	741	1.05
Pera Rio.....	11,909	699	253 260	17.50	1.99	931	23.74	2.06	961	24.50
Valencia and V.Folha Murcha ⁴	13,926	741	240 250	23.00 23.30	2.04	848	28.46	2.15	891	29.89
Natal.....	2,871	828	245 250	22.05 22.55	2.31	990	6.62	2.38	990	6.82
Average.....	(X)	748	252 259	18.09 18.50	2.11	921	(X)	2.18	952	(X)
Subtotal.....	34,216	(X)	(X)	(X)	(X)	(X)	72.31	(X)	(X)	74.70
SOUTHWEST SECTOR										
Hamlin, Westin and Rubi.....	4,876	996	277	10.00	2.91	1,310	14.18	2.91	1,310	14.18
Other early season ²	1,170	793	251	11.30	2.52	1,292	2.94	2.52	1,292	2.94
Pera Rio.....	10,389	749	253 260	17.50	2.13	1,053	22.18	2.20	1,087	22.90
Valencia and V.Folha Murcha ⁴	12,108	741	240 250	23.00 23.30	2.04	995	24.74	2.15	995	25.99
Natal.....	5,962	783	245 250	22.05 22.55	2.18	1,057	13.02	2.25	1,057	13.40
Average.....	(X)	788	252 259	18.09 18.50	2.23	1,080	(X)	2.30	1,113	(X)
Subtotal.....	34,505	(X)	(X)	(X)	(X)	(X)	77.06	(X)	(X)	79.41

(X) Not applicable.

¹ Hamlin, Westin, Rubi, Valencia Americana, Valencia Argentina, Seleta, Pineapple, Pera Rio, Valencia, Valencia Folha Murcha and Natal.

² Valencia Americana, Valencia Argentina, Seleta and Pineapple.

³ Weighted average per stratum bearing trees.

⁴ V. Folha Murcha – Valencia Folha Murcha.

Total orange¹ crop forecast update is 385.20 million of boxes

The orange production forecast update of the São Paulo and West-Southwest of Minas Gerais citrus belt for the 2017-2018 season, published on December 11th, 2017 by Fundecitrus with the cooperation of Markestrat, FEA-RP/USP and FCAV/Unesp² – is 385.20 million boxes, weighing 40.8kg each. This figure corresponds to an increase of 2.98% compared to the update published in September/2017 and an increase of 5.69% in relation to the initial May/2017 forecast. Out of the total crop, about 29.43 million boxes are estimated for the Triângulo Mineiro region.

The data collected as of the publication of this forecast update show that the fruits harvested from all varieties in this season have an average weight above that of the initial forecasts. The forecast in May 2017 was that each fruit would weigh by harvest time an average of 154 grams; however, in September 2017, the unit weight rose to 158 grams and now is at 162 grams. The weight gain was the main reason which caused increased production in early varieties in September 2017 and continues to be the determining factor for the increase in mid-season and late varieties of this update. The fruit droppage rate is confirming to be high vis-à-vis the crop standards in the citrus belt, in line with the initial forecast, since the variation since May 2017 did not decrease even by half percent point from the estimated value. The positive result so far was triggered mainly by rainfall above historical levels at the beginning of the season, which again fell at producing regions in October, reaching an average of 147 mm, and 227 mm in November, after the drought which lasted from July to September, with only an accumulated total of 47 mm for the quarter, according to Somar Meteorologia's weather forecast. In addition to the weather, the good performance of the harvest is related to greater intensity of crop management at the groves, which can be evidenced by the increased demand of inputs used in their nutritional and phytosanitary management as seen in the last year in citrus growing.

The data from the continuous crop monitoring presented no significant alterations in terms of size and fruit droppage rate of early varieties as compared with those reported in the update published in September 2017 and indicate that 99% of the plots with such varieties have already been harvested, therefore their production was kept the same as in the update of the last publication. The Pera Rio harvest reached 89%, and the data show an increased fruit size, from 260 to 253 oranges per box, but with no alteration in droppage rate. The harvest of Valencia and Valencia Folha Murcha varieties is 58%, and that of the Natal variety is 50%. Such late varieties have had their size and droppage rate revised in this update, but with a greater probability of those for Pera Rio not being the definitive ones, since in the case of late varieties half of their production is still to be harvested, which will take place during the most rainy period of the year. The size of the Valencia and Valencia Folha Murcha varieties is revised to 240 fruits per box, whereas in the May 2017 estimate it was forecast to 250 fruits per box, with a droppage rate now of 23.00%. In the case of the Natal variety, their size is re-estimated to 245 fruits per box, whereas the previous one was 250 fruits per box, with a droppage rate now of 22.05%. Considering all the varieties, almost three fourths of the production has already been harvested, with an average size being revised to 252 fruits per box and a droppage rate being re-estimated at 18.09%.

The method used for updating is the same one which had been adopted the season before. The information was obtained from the monitoring research conducted on 900 blocks since May, which cease to be visited as their harvest is concluded. The details of this methodology are found in the document "Methodology for the Orange Production Forecast Update" available at www.fundecitrus.com.br. Another source included in this study is the size of fruits received throughout the season by the orange juice companies that are members of Fundecitrus – Citrosuco, Cutrale and Louis Dreyfus – for the purpose of industrial processing. Each processing company provides, under confidentiality, the individual data to an independent consulting firm to ascertain the average size of the fruits processed.

¹ Hamlin, Westin, Rubi, Valencia Americana, Valencia Argentina, Seleta, Pineapple Pera Rio, Valencia, Valencia Folha Murcha and Natal.

² Exact Sciences Department, FCAV/Unesp Jaboticabal.