
## Current forecast update (variation regarding the February forecast): April, 10 2025

**Total orange crop production forecast: 230.87 million boxes (1.0% increase)**
**Hamlin, Westin and Rubi: 37.63 million boxes (unchanged)**
**Other early season: 15.60 million boxes (unchanged)**
**Pera Rio: 74.70 million boxes (0.3% increase)**
**Valencia and Folha Murcha: 75.99 million boxes (2.4% increase)**
**Natal: 26.95 million boxes (1.2% increase)**

**The orange production forecast of the 2025-2026 season will be released at 10:00 a.m. (BRT, GMT -3:00) on May 9, 2025.**

**Table 1 – Orange crop forecast update by sector and variety group – citrus belt**

| Month | Forecast components | | | | Crop forecast update 2024-2025 | | | Crop forecast update 2024-2025 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | February/2025 and April/2025 (strike-through values were presented in February, to their left are their respective values updated in April) | | | | February/2025 | | | April/2025 | | |
| Sector and variety group | Bearing trees | Fruit per tree at stripping | Fruit estimated per box | Estimated drop rate | Per tree | Per hectare | Total | Per tree | Per hectare | Total |
| | (1,000 trees) | (number) | (number) | (percentage) | (boxes/ tree) | (boxes/ hectare) | (1,000,000 boxes) | (boxes/ tree) | (boxes/ hectare) | (1,000,000 boxes) |
| **CITRUS BELT** | | | | | | | | | | |
| Hamlin, Westin and Rubi.... | 26,437.06 | 501 | 283 | 10.60 | 1.42 | 666 | 37.63 | 1.42 | 666 | 37.63 |
| Other early..... | 10,834.96 | 478 | 257 | 13.90 | 1.44 | 749 | 15.60 | 1.44 | 749 | 15.60 |
| Pera Rio..... | 59,601.12 | 422 | 253 ~~252~~ | 16.50 ~~17.00~~ | 1.25 | 656 | 74.46 | 1.25 | 658 | 74.70 |
| Valencia and Folha Murcha | 53,100.14 | 501 | 247 ~~252~~ | 21.60 ~~21.80~~ | 1.40 | 686 | 74.20 | 1.43 | 703 | 75.99 |
| Natal..... | 18,569.39 | 525 | 252 ~~255~~ | 22.60 ~~22.50~~ | 1.43 | 715 | 26.63 | 1.45 | 723 | 26.95 |
| **Total**..... | **168,542.67** | **474** | **256** ~~**258**~~ | **17.80** ~~**18.00**~~ | **1.36** | **680** | **228.52** | **1.37** | **687** | **230.87** |
| **NORTH SECTOR** | | | | | | | | | | |
| Hamlin, Westin and Rubi.... | 6,872.89 | 488 | 274 | 14.20 | 1.37 | 612 | 9.44 | 1.37 | 611 | 9.43 |
| Other early..... | 2,146.81 | 506 | 239 | 11.40 ~~12.20~~ | 1.67 | 796 | 3.58 | 1.68 | 803 | 3.61 |
| Pera Rio..... | 12,164.10 | 375 | 243 | 11.10 ~~11.80~~ | 1.22 | 648 | 14.85 | 1.23 | 654 | 14.99 |
| Valencia and Folha Murcha | 12,734.31 | 421 | 234 ~~237~~ | 19.40 ~~19.70~~ | 1.28 | 575 | 16.31 | 1.30 | 585 | 16.61 |
| Natal..... | 3,910.89 | 395 | 236 ~~237~~ | 8.50 ~~8.60~~ | 1.36 | 625 | 5.32 | 1.37 | 630 | 5.36 |
| **Subtotal**..... | **37,829.00** | **420** | **246** ~~**247**~~ | **14.30** ~~**14.70**~~ | **1.31** | **621** | **49.50** | **1.32** | **627** | **50.00** |
| **NORTHWEST SECTOR** | | | | | | | | | | |
| Hamlin, Westin and Rubi.... | 2,043.73 | 220 | 263 ~~267~~ | 6.60 | 0.69 | 325 | 1.41 | 0.70 | 329 | 1.43 |
| Other early..... | 1,906.61 | 288 | 241 ~~240~~ | 8.00 ~~8.50~~ | 0.99 | 539 | 1.88 | 0.99 | 539 | 1.88 |
| Pera Rio..... | 6,993.74 | 322 | 231 ~~229~~ | 14.00 | 1.08 | 513 | 7.57 | 1.08 | 510 | 7.53 |
| Valencia and Folha Murcha | 2,613.54 | 362 | 239 ~~241~~ | 14.40 | 1.16 | 559 | 3.02 | 1.17 | 565 | 3.05 |
| Natal..... | 1,125.00 | 174 | 268 ~~272~~ | 32.30 ~~32.60~~ | 0.39 | 202 | 0.44 | 0.39 | 202 | 0.44 |
| **Subtotal**..... | **14,682.62** | **299** | **239** | **13.40** ~~**13.50**~~ | **0.98** | **474** | **14.32** | **0.98** | **475** | **14.33** |
| **CENTRAL SECTOR** | | | | | | | | | | |
| Hamlin, Westin and Rubi.... | 6,775.50 | 484 | 294 | 11.40 ~~11.90~~ | 1.30 | 639 | 8.83 | 1.31 | 643 | 8.88 |
| Other early..... | 4,208.31 | 450 | 265 ~~267~~ | 11.80 ~~11.90~~ | 1.33 | 719 | 5.61 | 1.34 | 724 | 5.65 |
| Pera Rio..... | 18,007.25 | 379 | 257 ~~258~~ | 20.80 ~~21.40~~ | 1.03 | 564 | 18.63 | 1.05 | 572 | 18.89 |
| Valencia and Folha Murcha | 14,350.90 | 451 | 255 ~~262~~ | 23.20 ~~22.90~~ | 1.19 | 624 | 17.10 | 1.22 | 640 | 17.53 |
| Natal..... | 4,661.85 | 535 | 257 ~~262~~ | 31.40 ~~31.30~~ | 1.26 | 615 | 5.86 | 1.28 | 625 | 5.96 |
| **Subtotal**..... | **48,003.81** | **437** | **263** ~~**266**~~ | **20.50** ~~**20.70**~~ | **1.17** | **612** | **56.03** | **1.19** | **621** | **56.91** |
| **SOUTH SECTOR** | | | | | | | | | | |
| Hamlin, Westin and Rubi.... | 4,586.72 | 489 | 278 | 7.80 | 1.46 | 692 | 6.69 | 1.46 | 691 | 6.68 |
| Other early..... | 637.46 | 527 | 281 | 7.00 ~~7.40~~ | 1.55 | 776 | 0.99 | 1.57 | 784 | 1.00 |
| Pera Rio..... | 10,649.26 | 466 | 263 ~~262~~ | 20.10 ~~22.10~~ | 1.24 | 644 | 13.22 | 1.27 | 659 | 13.54 |
| Valencia and Folha Murcha | 9,649.05 | 551 | 263 ~~270~~ | 20.50 ~~21.00~~ | 1.45 | 679 | 13.96 | 1.50 | 703 | 14.45 |
| Natal..... | 2,523.71 | 628 | 262 ~~267~~ | 25.30 ~~26.50~~ | 1.55 | 802 | 3.91 | 1.60 | 831 | 4.05 |
| **Subtotal**..... | **28,046.20** | **515** | **266** ~~**268**~~ | **18.60** ~~**19.60**~~ | **1.38** | **681** | **38.77** | **1.42** | **698** | **39.72** |
| **SOUTHWEST SECTOR** | | | | | | | | | | |
| Hamlin, Westin and Rubi.... | 6,158.22 | 638 | 287 | 8.80 ~~8.50~~ | 1.83 | 848 | 11.26 | 1.82 | 845 | 11.21 |
| Other early..... | 1,935.77 | 680 | 262 ~~260~~ | 23.20 ~~22.10~~ | 1.83 | 943 | 3.54 | 1.79 | 922 | 3.46 |
| Pera Rio..... | 11,786.77 | 557 | 257 ~~253~~ | 13.90 ~~13.20~~ | 1.71 | 907 | 20.19 | 1.68 | 887 | 19.75 |
| Valencia and Folha Murcha | 13,752.34 | 616 | 240 ~~244~~ | 23.30 ~~23.60~~ | 1.73 | 900 | 23.81 | 1.77 | 921 | 24.35 |
| Natal..... | 6,347.94 | 620 | 250 ~~253~~ | 21.00 ~~20.30~~ | 1.75 | 912 | 11.10 | 1.75 | 915 | 11.14 |
| **Subtotal**..... | **39,981.04** | **606** | **255** ~~**256**~~ | **18.00** ~~**17.70**~~ | **1.75** | **897** | **69.90** | **1.75** | **897** | **69.91** |


**Total orange production[1] for the 2024-2025 crop season ended at 230.87 million boxes**

The 2024-2025 orange crop for the São Paulo and West-Southwest Minas Gerais citrus belt, published on April 10, 2025 by Fundecitrus, carried out in cooperation with full professor from FCAV/Unesp[2], concluded with 230.87 million boxes of 40.8 kg each (90 lbs), divided as follows:

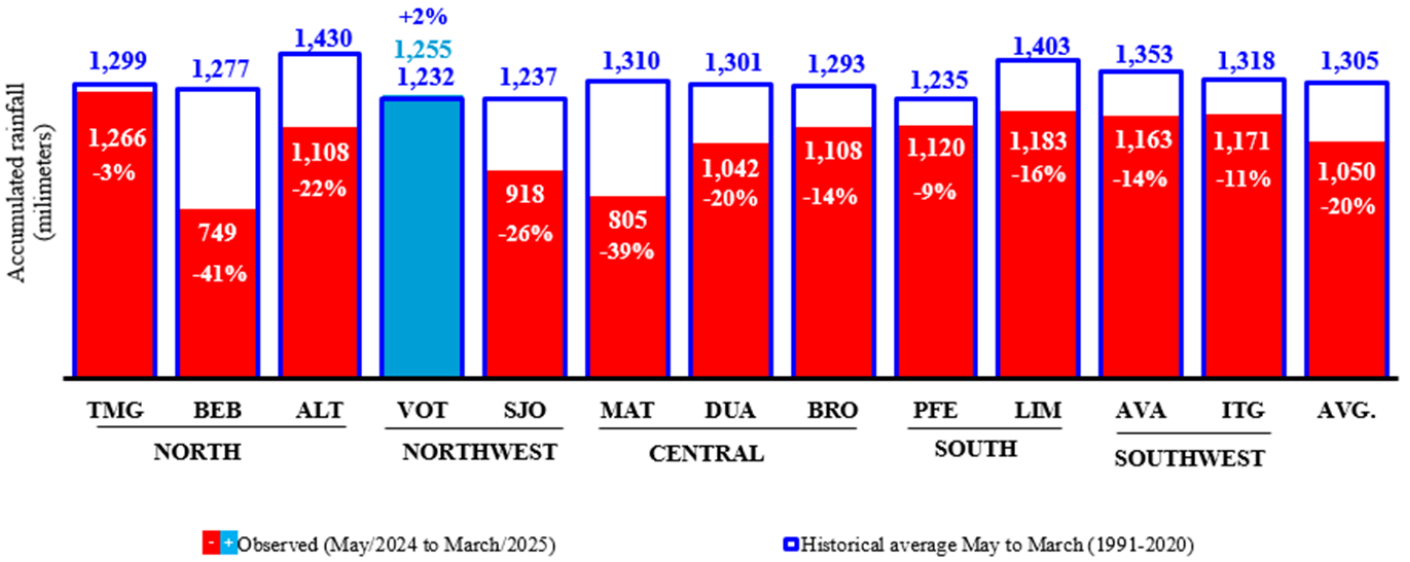
- 37.63 million boxes of Hamlin, Westin e Rubi early-season varieties;
- 15.60 million boxes of Valência Americana, Seleta, Pineapple e Alvorada early-season varieties;
- 74.70 million boxes of Pera Rio mid-season variety;
- 75.99 million boxes of Valência e Valência Folha Murcha late-season varieties;
- 26.95 million boxes of Natal late-season variety.

Of the total, about 14.94 million boxes were produced in the Triângulo Mineiro region.

This season production was 0.65% below the initial estimate released in May 2024 (232.38 million boxes) and 24.85% below the previous crop season, which totaled 307.22 million boxes, a production level in line with the historical average. The 2024-2025 crop was confirmed as the second smallest in the last 37 years, considered atypical due to adverse weather conditions, marked by dry weather, high temperatures, the extremely late and expressive fourth bloom, along with the incidence of greening.

The estimate published in May 2024 already anticipated that this crop production would be adversely impacted by the heat waves and drought recorded during the flowering period of orange trees, resulting in a low initial number of fruits. Moreover, although the weather forecasts indicated reduced rainfall during the fruit development period, the severity of climate conditions which were recorded between May and August 2024 had not been foreseen. During this period, the rain volume was 31% below the forecast, whereas maximum temperatures averaged at 3°C (37.4 ºF) to 4°C (39.2 ºF) above the historical average (1991-2020), according to data from Climatempo Meteorologia. On the one hand, the drought hindered the development of fruits, and on the other hand, the high temperatures accelerated the ripening of oranges, resulting in an early harvest before the start of the rainy season. Consequently, approximately 45% of the crop had already been harvested in August 2024, reaching 80% in November of the same year. Significant rainfall only occurred from October to December 2024, a period in which it exceeded the historical average (1991-2020), but then returned to below-average levels in January, February, and March 2025. Therefore, most of the crop production was harvested early and under draught conditions, resulting in fruits smaller than initially expected.

The average citrus belt rainfall accumulated from May 2024 to March 2025 was in the low range, totaling 1,050 millimeters. This represents a 255-millimeter or 20% decrease compared to the historical average of 1,305 millimeters (1991-2020), according to data provided by Climatempo Meteorologia. Except for the Votuporanga region, all regions of the citrus belt had volumes below the historical average. Total volumes were 749 millimeters in Bebedouro (-41%); 805 millimeters in Matão (-39%); 918 millimeters in São José do Rio Preto (-26%); 1,108 millimeters in Altinópolis (-22%); 1,042 millimeters in Duartina (-20%); 1,183 millimeters in Limeira (-16%); 1,108 millimeters in Brotas (-14%); 1,163 millimeters in Avaré (-14%); 1,171 millimeters in Itapetininga (-11%); 1,120 millimeters in Porto Ferreira (-9%); 1,266 in the Triângulo Mineiro (-3%); and 1,255 millimeters in Votuporanga (+2%). The rainfall data were obtained through Climatempo Meteorologia and are presented in Graph 1.




**Graph 1 - Total accumulated rainfall from May 2024 to March 2025 in the citrus belt regions**
Source: Fundecitrus, based on data from Climatempo Meteorologia

The negative effects of adverse weather conditions on production were somewhat mitigated by the extremely delayed and pronounced emergence and development of fruits from the fourth bloom, which prevented an even more severe production shortfall. At the time of the initial estimate, in May 2024, the fruits from the fourth bloom were in a very early stage of development, or still in the flowering phase, which hindered the forecasting of the final fruit size. Furthermore, some trees only had their fourth bloom after the estimation period in May. For these reasons, a new harvest was carried out in the months of September and October 2024, aiming to update the estimate both for the number and weight of the fruits from the fourth bloom, whose information was incorporated in the updated estimate disclosed in December. The late fruits from the fourth bloom, along with those from the first three blooms that remained unharvested by October, benefited from the abundant rains that occurred from October to December.

Considering the average size of the fruits harvested from all varieties, 256 fruits were needed to fill a 40.8 kg box, indicating an increase of 15 fruits compared to the estimate made in May. The average weight of these fruits was 159 grams (5.61 oz), which differed from the initially estimated weight of 169 grams (5.96 oz). The observed weight is lower than the average weight of the last 10 years, namely 163 grams (5.75 oz) per fruit. The size of the fruits from the first, second, and third bloom, considering all varieties, was 162 grams (5.71 oz), whereas the fruits from the fourth bloom weighed 146 grams (5.15 oz).

A projected average of 281 fruits per box (145 grams/5.11 oz per fruit) was disclosed in May 2024 for the group that includes Hamlin, Westin and Rubi, however the crop season yielded 283 fruits per box (144 grams/5.08 oz per fruit). The oranges of other early varieties went from 249 fruits per box (164 grams/5.78 oz per fruit) in May 2024 to 257 fruits per box (159 grams/5.61 oz per fruit). The initial projection of 247 fruits per box (165 grams/5.82 oz per fruit) for Pera Rio was updated to 253 fruits per box (161 grams/5.68 oz per fruit). The average fruit size for Valencia and Valencia Folha Murcha varieties, whose projection was 218 fruits per box (187 grams/6.60 oz per fruit) in May 2024, was updated to 247 fruits per box (165 grams/5.82 oz per fruit) at the end of the crop season. The initial projection for Natal of 232 fruits per box (176 grams/6.21 per fruit) was updated to 252 fruits per box (162 grams/5.71 oz per fruit) at this final crop forecast. The sizes by sector and variety are presented in Table 2.

**Table 2 – Average fruit size, as pieces of fruit per box, by sector and variety[3]**

| Group of varieties | Sector (hatched values were presented in May 2024 and their respective values updated in April 2025 are on the left) | | | | | |
|---|---|---|---|---|---|---|
| | North | Northwest | Central | South | Southwest | Total |
| | (Fruits per box) | (Fruits per box) | (Fruits per box) | (Fruits per box) | (Fruits per box) | (Fruits per box) |
| Hamlin, Westin and Rubi…….. | 274 ~~281~~ | 263 ~~275~~ | 294 ~~277~~ | 278 ~~288~~ | 287 ~~282~~ | **283** ~~**281**~~ |
| Other earlies..... | 239 ~~244~~ | 241 ~~240~~ | 265 ~~240~~ | 281 ~~262~~ | 262 ~~265~~ | **257** ~~**249**~~ |
| Pera Rio..... | 243 ~~239~~ | 231 ~~245~~ | 257 ~~251~~ | 263 ~~255~~ | 257 ~~244~~ | **253** ~~**247**~~ |
| Valencia and Folha Murcha..... | 234 ~~202~~ | 239 ~~217~~ | 255 ~~224~~ | 263 ~~229~~ | 240 ~~216~~ | **247** ~~**218**~~ |
| Natal..... | 236 ~~222~~ | 268 ~~241~~ | 257 ~~235~~ | 262 ~~241~~ | 250 ~~230~~ | **252** ~~**232**~~ |
| **Total**..... | **246** ~~**235**~~ | **239** ~~**242**~~ | **263** ~~**244**~~ | **266** ~~**249**~~ | **255** ~~**239**~~ | **256** ~~**241**~~ |

[3] The precision of the overall average of the citrus belt is higher than that of the sectors, ages or variety groups, due to the larger sample size.

This was yet another crop season marked by a fast harvesting pace, aimed at minimizing premature fruit drop and production losses. This accelerated harvesting pace contributed to containing the average fruit drop in the citrus belt, which reached 17.8% in overall cumulative terms since the beginning of the season - the lowest figure recorded in the past five years. This value represents a decrease of 0.7 percentage points compared to the projection made in May 2024. The margin of error is plus or minus 0.82 percentage points, with 95% confidence level.

The drop rate of Hamlin, Westin, and Ruby was 10.6%, with a margin of error of ± 1.5 percentage point. The other early varieties showed a slightly higher drop rate of 13.9%, with a margin of error of ± 1.5 percentage points. The Pera Rio drop rate was 16.5%, with a margin of error of ± 1.5 percentage point, whereas the Valencia and Valencia Folha Murcha varieties stood at a higher drop rate of 21.6%, with a margin of error of ± 1.8 percentage point. Finally, the Natal variety had the highest drop rate, with 22.6% and a margin of error of ± 2.3 percentage points.

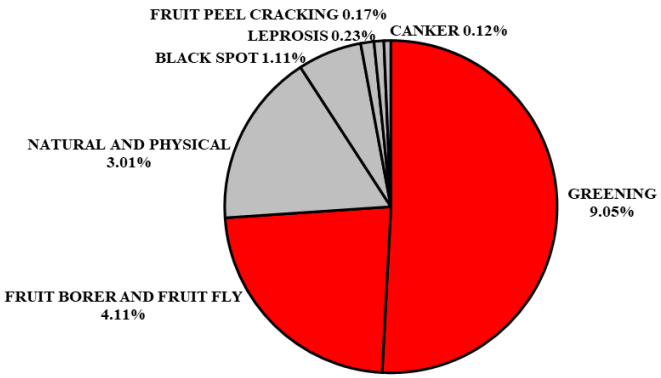
Drop rates by sector and variety are presented in Table 3. The state Northwest area, comprising the regions of Votuporanga and São José do Rio Preto, had the lowest rate of the citrus belt, standing at 13.4%. The Central area, which includes the regions of Matão, Duartina, and Brotas, recorded the highest drop rate, reaching 20.5%.

**Table 3 – Average drop rates by sector and variety[4]**

| Group of varieties | Sector (hatched values were presented in May 2024 and their respective values updated in April 2025 are on the left) | | | | | |
|---|---|---|---|---|---|---|
| | North | Northwest | Central | South | Southwest | Total |
| | (percentual) | (percentual) | (percentual) | (percentual) | (percentual) | (percentual) |
| Hamlin, Westin and Rubi…….. | 14.20 ~~8.30~~ | 6.60 ~~12.10~~ | 11.40 ~~10.40~~ | 7.80 ~~12.10~~ | 8.80 ~~8.10~~ | 10.60 ~~9.50~~ |
| Other earlies..... | 11.40 ~~8.00~~ | 8.00 ~~14.90~~ | 11.80 ~~10.90~~ | 7.00 ~~17.10~~ | 23.20 ~~8.90~~ | 13.90 ~~10.70~~ |
| Pera Rio..... | 11.10 ~~15.50~~ | 14.00 ~~13.00~~ | 20.80 ~~22.10~~ | 20.10 ~~19.80~~ | 13.90 ~~16.90~~ | 16.50 ~~18.40~~ |
| Valencia and Folha Murcha…..... | 19.40 ~~21.20~~ | 14.40 ~~24.10~~ | 23.20 ~~24.20~~ | 20.50 ~~25.00~~ | 23.30 ~~21.10~~ | 21.60 ~~22.70~~ |
| Natal..... | 8.50 ~~12.90~~ | 32.30 ~~23.30~~ | 31.40 ~~22.10~~ | 25.30 ~~27.20~~ | 21.00 ~~27.20~~ | 22.60 ~~23.90~~ |
| **Total**..... | **14.30** ~~**15.10**~~ | **13.40** ~~**16.10**~~ | **20.50** ~~**19.90**~~ | **18.60** ~~**21.20**~~ | **18.00** ~~**18.30**~~ | **17.80** ~~**18.50**~~ |

[4] The precision of the overall average of the citrus belt is higher than that of the sectors, ages or variety groups, due to the larger sample size.

Production loss, resulting from a premature fruit drop, was estimated at approximately 50 million boxes. This volume is eliminated from the production estimate through the premature fruit drop rate, which is considered in the calculations. The main reason for the production loss during this season was greening, contributing with 9.05% (of the total 17.8%), which accounts for 25 million boxes that suffered premature drop. Next, the fruit borer and the fruit fly accounted for 4.11%, jointly resulting in an estimated loss of 12 million boxes. The category encompassing natural (1.83%) and physical (1.18%) drop ranked third, accounting for 3.01% of the total rate, which is equivalent to 8 million boxes lost. Black spot, ranking fourth, accounted for 1.11% of losses, corresponding to 3 million boxes. The remaining reasons, totaling 2 million boxes lost, include leprosis in fifth place, with 0.23%; fruit peel cracking in sixth place, with 0.17%; and citrus canker in the last position, with 0.12%, as shown in Graph 2.




**Graph 2 – Causes that made up the average rate of fruit drop in the 2024-2025 crop, highlighting the main pests and greening**
Source: Fundecitrus

The method used for the update is the same adopted in the previous crop season. Information was obtained from the monitoring survey started in May on 1,200 plots that are no longer visited when fruit harvest is complete. Other data used in this study is size of fruit received throughout the crop season by orange juice companies associated to Fundecitrus – Citrosuco, Cutrale and Louis Dreyfus – for industrial processing. Each processing company supplies individual data under confidentiality for the calculation of the average size of processed fruit.

**2025-2026 crop forecast**

The orange crop forecast and tree inventory will be released on May 9, 2025, at 10 am (BRT, GMT -3:00), in a face-to-face event at Fundecitrus – with simultaneous broadcast and translation to English on the institution's YouTube channel.

[1] Hamlin, Westin, Rubi, Valencia Americana, Seleta, Pineapple, Alvorada, Pera Rio, Valencia, Valencia Folha Murcha, and, Natal.
[2] Department of math and science, FCAV/Unesp Jaboticabal Campus.