

Citrus Industry OUTLOOK 2026-2036

The Citrus Long-Term model provides a comprehensive outlook for the Southern African citrus export industry, for the period 2026–2036.

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The Citrus Long-Term (LT) model projects export volumes by incorporating realistic assumptions about production capacity, orchard development cycles, and key primary production factors.

Developed in Python, the model integrates multiple datasets, including tree census data from eCert, budwood sales data from Citrus Research International (CRI), orchard maturation cycles, and regional varietal distributions. These data are supplemented with inputs from technical experts, extension officers, and the LT model agricultural economist. Together, these sources are harnessed to provide a robust, data-driven framework for projecting long-term production potential.

The model focuses exclusively on fresh citrus exports. Thus, excluding fruit destined for the local market or processing sector. Importantly, the results depict projections for exportable fresh citrus volumes, not total citrus production.

Base data: tree census information

The tree census data within the LT model includes, orchards that meet phytosanitary standards and are registered for export markets.

The eCert database provides detailed information on total orchard hectares, citrus varieties, production regions, and year of planting, which enables tracking of orchard age profiles and production potential across SA's citrus-producing regions.

In 2025, a total of 105 105 hectares of Southern African citrus were registered, representing a 3% increase compared with the 101

624 hectares recorded in 2024. Partly, this rise may be attributable to improved cooperation from growers in registering all their orchards, including those not yet in production. However, the expansion remains aligned with industry expectations. Notable growth was observed in Valencia oranges (up 7%), soft citrus (up 3%), and grapefruit (up 2%). Lemons and navel oranges recorded only marginal increases.

Budwood and new orchard establishment

Budwood sales are a key indicator of future citrus plantings. The LT model tracks budwood sales by citrus variety and converts these sales into estimated new orchard hectares.

In 2025, a total of 3 570 budwood units were sold. Approximately 85% (3 034.50 units) are assumed to be successfully converted into viable trees. These trees are then translated into planted hectares using variety-specific planting densities and resulting in an estimated 4 720 hectares of new plantings.

A two-season lag is applied between budwood sales and orchard establishment. This reflects the time required for budwood to be propagated into nursery trees and subsequently planted in orchards. Hence, budwood sold in 2025 is assumed to enter commercial production in 2027.

Budwood growth assumptions

Budwood sales are assumed to grow at 2% annually, based on post-2023 trends and long-term averages observed since 2010.

For example, budwood sold in 2023 (2 539 976 units; approximately 3 424 hectares) was planted in 2025, while budwood sold in 2024 (1 212 369 units; approximately 1 667 hectares) was planted in 2026.

To reduce volatility in annual planting estimates, the model calculates new plantings using the average budwood sales from the previous two years, after which the 2% annual growth rate is applied. This approach smooths short-term fluctuations while reflecting realistic long-term industry expansion.

Orchard lifecycle and tree removals

Citrus trees have a finite productive lifespan. Orchards are gradually removed at maximum tree productive age.

The model assumes that approximately 75% of the orchard area is removed in the first year once it reaches its maximum age, with the remaining area phased out over the following two years.

Importantly, hectares removed from production are added back as available planting capacity. This allows new orchards to replace aging trees and helps maintain long-term production potential across the industry.

Regional planting capacity

Each production region has a maximum additional planting capacity of 1 000 hectares over the 10-year projection period, while Eswatini is capped at 100 hectares.

This capacity is separate from hectares released through orchard removals. Regions may therefore expand production through

replacement plantings from orchard removals as well as additional regional expansion capacity.

However, each region can only expand by this additional capacity once over the entire 10-year period, ensuring controlled and sustainable industry growth.

Capacity allocation and composite ranking system

Future plantings are allocated using a composite ranking system that prioritises region-variety combinations, based on their percentage contribution to total planted area and their contribution to the specific citrus commodity.

Figure 1: Export composition by variety

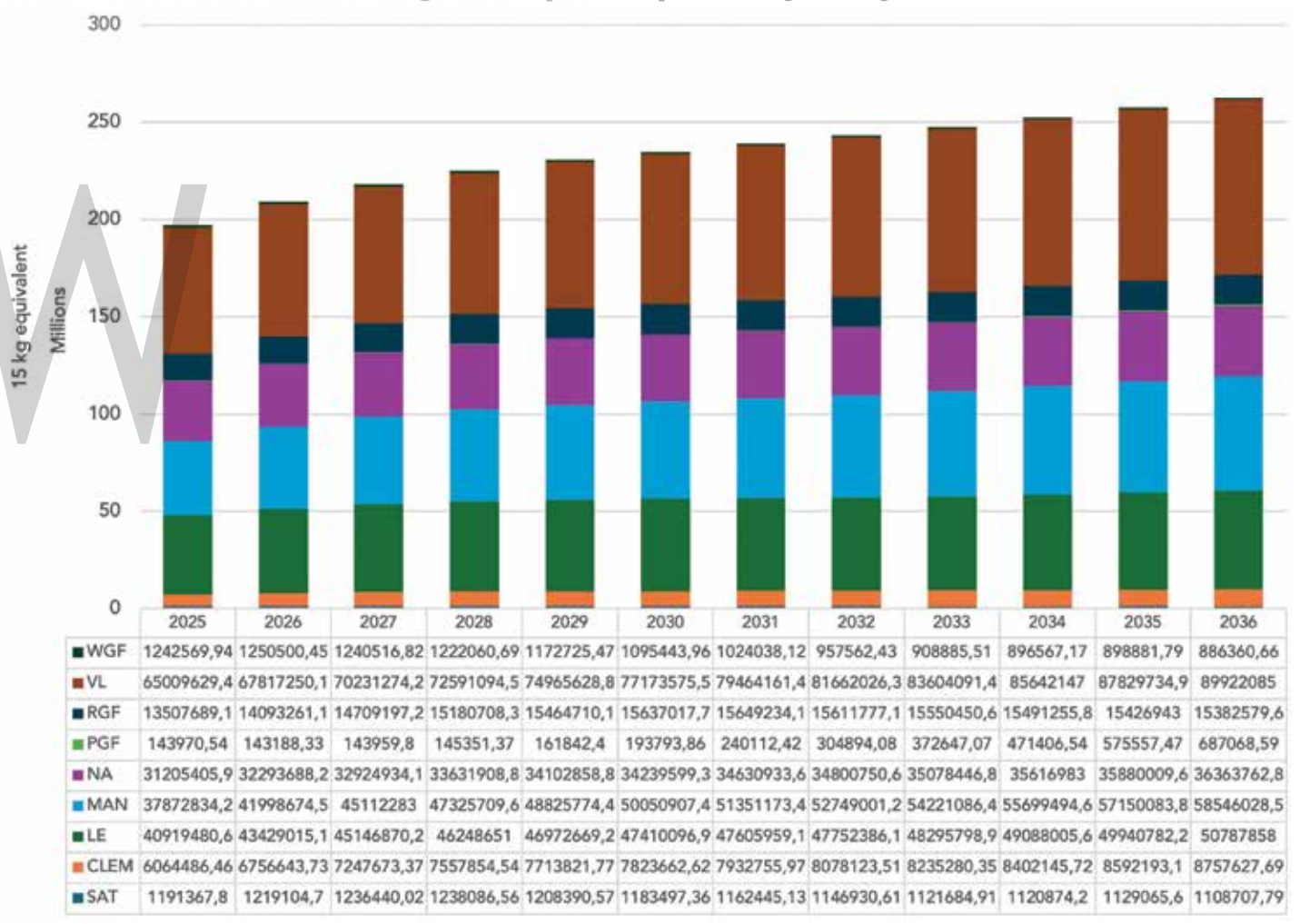


Table 1: LT model results

Year	Cartons (15 kg)
2025	197 157 434
2026	209 001 326
2027	217 993 149
2028	225 141 425
2029	230 588 421
2030	234 807 595
2031	239 060 813
2032	243 063 452
2033	247 388 372
2034	252 428 880
2035	257 423 252
2036	262 442 079

Region-variety combinations with higher composite rankings receive priority when allocating new planting capacity. This ensures that future expansion aligns with existing production strengths and market demand while maximizing overall industry efficiency.

Production, pack-out, and export assumptions

Export volumes are calculated using region- and variety-specific yield and pack-out assumptions.

For example, 80 hectares of full-bearing trees producing 50 tonnes per hectare with a 65% pack-out rate would generate approximately 2 600 tonnes of exportable fruit. Similarly, 20 hectares of young trees producing eight tonnes per hectare at the same pack-out rate would generate approximately 104 tonnes of exportable fruit.

Future plantings generally follow the existing distribution of orchards across regions. However, once a region reaches its maximum capacity, new plantings are reallocated to other regions to optimise production and export potential.

Table 2: Commodity-level comparison between the LT model results and the crop estimate

Commodity	LT model	Crop estimate	LT model vs. crop estimate
Valencia	67 817 250	63 023 081	4 794 169
Navels	32 293 688	29 976 567	2 317 121
Soft Citrus	49 974 423	52 709 508	(2 735 086)
Lemons	43 429 015	45 853 086	(2 424 071)
Grapefruit	15 486 950	17 804 666	(2 317 716)
Total	209 001 326	209 366 908	(365 582)

Long-Term model results (2025-2036)

The model projects steady growth in export volumes over the projection period, as new orchards mature and enter full production. Export volumes are expressed in 15 kg cartons of fresh citrus destined for export markets. (Table 1)

And its outcomes correlate strongly with the citrus crop estimate issued by the Citrus Growers’ Association (CGA) Variety Focus Groups in March. Their projection placed the 2026 crop at 209 366 908 cartons (15 kg equivalent), just 365 582 cartons above the LT model figure of 209 001 326 cartons. This close alignment between the estimate and LT model results underscores the reliability of industry prediction methods and provides a solid foundation for consistent planning across markets, logistics, and export operations.(Table 2)

The LT model indicates a sustained upward trajectory in SA’s citrus export capacity from approximately 197.2 to 262.4 million cartons (from 2025 to 2036). This growth is primarily driven by new orchard establishment, orchard replacement cycles, and gradual regional expansion within defined capacity limits.

By integrating detailed tree census data, budwood sales trends, orchard lifecycle dynamics, and region-specific production parameters, the LT model provides a robust framework for understanding long-term industry potential. These projections offer valuable insights for growers, exporters,

guides strategic planning, infrastructural development, and market expansion initiatives aimed at sustaining the global competitiveness of the Southern African citrus sector.

Key trends identified in the projections include

- **Valencia oranges (VL):** remain the largest export category, reflecting their dominant role in the export basket.
- **Mandarins (MAN):** show strong growth due to continued orchard expansion and rising global demand.
- **Lemons (LE):** expand steadily, supported by favourable production conditions and strong market demand.
- **Clementines (CLEM) and Navels (NA):** exhibit moderate but stable growth.
- **White grapefruit (WGF):** declines gradually due to limited new plantings and shifting export demand.
- **Pink grapefruit (PGF):** increases slowly from a small base, as new orchards mature.

The model highlights these anticipated primary industry growth drivers: Valencia oranges, mandarins, lemons and navels, supported by strategic planting decisions and orchard replacement cycles across key production regions.



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