



HALOGEN GREENS



CASE STUDY

MACADAMIA PRODUCTION

2026 Season Results - Low's Creek,
Mpumalanga, South Africa

Halogen Greens (Pty) Ltd



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2026 SEASON RESULTS - LOW'S CREEK, MPUMALANGA, SOUTH AFRICA

1 Executive Summary

This report documents the 2026 macadamia season results achieved by a commercial grower located near Low's Creek in the Lowveld region of Mpumalanga, South Africa. The orchard carries a mixed cultivar programme spanning both mature and young-bearing blocks.

The 2025 season was characterised by poor performance across the operation, attributed to adverse growing conditions. The 2026 season represents a significant recovery. Broader industry reporting indicates improved

yields and quality across the South African macadamia sector in 2026, suggesting that favourable seasonal conditions benefited growers widely.

Key Season Highlights

Beaumont block: 25 kg/tree - 6,250 kg/ha, substantially exceeding industry benchmarks of 15-20 kg/tree.

A4 block (6 years): 11.1 kg/tree and 3,463 kg/ha with TKR of 44-47% - firmly in the premium export grade.

Quality improvement consistent across all cultivars relative to the 2025 season.

Magtasium foliar programme applied at 10 L/ha across three applications during the season.

2 Orchard Profile

Parameter	Detail
Location	Low's Creek, Mpumalanga (Lowveld), South Africa
Reporting Season	2026
Cultivars	816, Nelmak D, A4, A268, Beaumont
Weight Basis	Dry-in-Shell (DIS) at 7–10% moisture content
Prepared	June 2026
Classification	Grower Reference Document



3 Season Results

3.1 Yield and Quality Summary

All weights are recorded on a Dry-in-Shell basis at 7-10% moisture content.

Cultivar	Age	Trees/ha	Yield/tree (kg)	Yield/ha (kg)	Notes
816	Mature	—	11.26	3,513	—
Nelmak D	Mature	—	5.00	1,500	—
A4	6 years	—	11.10	3,463	TKR 44–47%
A268	5 years	—	5.77	1,800	—
Beaumont	Mature	250	25.00	6,250	Standout performer

3.2 Quality Observations

Overall nut quality showed marked improvement relative to the 2025 season across all cultivars. The A4 block recorded a Total Kernel Recovery (TKR) of 44–47%, well above the commercial export threshold of approximately 34%, placing the crop firmly in the premium grade category. Quality improvement was consistent across the farm, with no significant outliers noted at the cultivar level.

4 Cultivar Performance Commentary

Beaumont

The Beaumont block delivered the standout result of the season at 25 kg per tree and 6,250 kg/ha, planted at 250 trees per hectare. This substantially exceeds commonly cited industry benchmarks of 15–20 kg per tree for mature Beaumont plantings.

816

The 816 block recorded 11.26 kg per tree and 3,513 kg/ha - a solid result for a mature block, reflecting consistent performance from one of the most widely planted cultivars in South African orchards.

Nelmak D

The Nelmak D block recorded 5.0 kg per tree and 1,500 kg/ha. Nelmak D is generally acknowledged to be slower to come into full bearing compared to 816 or A4. No quality concerns were noted for this cultivar.

A4 (6 Years Old)

At only six years of age, the A4 block achieved 11.1 kg per tree and 3,463 kg/ha - performance broadly comparable to the mature 816 block. The quality outcome (44–47% TKR) further reinforces the block's strong trajectory toward full bearing.

A268 (5 Years Old)

The A268 block recorded 5.77 kg per tree and 1,800 kg/ha. At five years old, this cultivar has not yet approached full bearing capacity, and the result is consistent with expected yield progression for this stage of tree development. Performance over the next two to three seasons will provide a more definitive assessment.



5 Notable Agronomic Input - Magtasium Programme

The grower introduced Magtasium - a foliar product containing both magnesium and potassium - into the nutrition programme during the 2026 season. Three applications were made at a rate of 10 litres per hectare, spaced between early September and late November, covering the key period from flowering initiation through to nut development.

While the grower acknowledges that isolating the causal contribution of any single input is difficult in the absence of a formal replicated trial, the view is held that the Magtasium programme contributed positively to outcomes across the farm.

Parameter	Detail
Product	Magtasium (Mg + K foliar bio-stimulant)
Application Rate	10 litres per hectare per application
Number of Applications	3 applications during 2026 season
Application Window	Early September to late November
Coverage	Flowering initiation through nut development
Method	Foliar application

Scientific Rationale

Magnesium is a structural component of the chlorophyll molecule and plays a central role in photosynthetic efficiency, while potassium is critical to water regulation, enzyme activation, and carbohydrate translocation. Deficiency in either element has been associated with reduced canopy function and impaired nut fill.

6 2027 Trial Intentions

The grower intends to continue with Magtasium applications in the 2027 season, applying the product more strategically - in terms of both timing and placement - based on the 2026 experience. A formal on-farm trial is being considered to generate more rigorous evidence of product efficacy.

Proposed 2027 Trial Metrics

SPAD chlorophyll readings at key phenological stages - a non-destructive indicator of photosynthetic capacity.

Brix measurements at hull split - a non-destructive indicator of carbohydrate status.

Yield per tree and per hectare across treated and untreated blocks.

Total Kernel Recovery (TKR) as a quality metric across all cultivars.

7 Industry Context - 2026 Season

The South African macadamia industry more broadly appears to have experienced an improved 2026 season, with preliminary reports indicating better yields and quality relative to 2025 across a number of production regions. The gains recorded at this operation are consistent with, and likely partially attributable to, more favourable seasonal conditions industry-wide. The extent to which orchard-specific management practices contributed above and beyond seasonal tailwinds remains a subject of ongoing evaluation by the grower.



8 Results Summary

Metric	Result	Benchmark / Context
Beaumont yield/tree	25.0 kg	Industry benchmark: 15–20 kg (mature)
Beaumont yield/ha	6,250 kg	Substantially above typical range
816 yield/tree	11.26 kg	Consistent with mature 816 performance
816 yield/ha	3,513 kg	Solid result for mature block
A4 yield/tree (6 yrs)	11.10 kg	Comparable to mature 816
A4 TKR	44–47%	Export threshold ~34% — premium grade
A268 yield/tree (5 yrs)	5.77 kg	Consistent with age-stage expectations
Nelmak D yield/tree	5.00 kg	Slower-bearing cultivar, expected range
Quality trend	Improved vs 2025	Consistent across all cultivars

9 Technical Notes

DIS Weight Basis: All yield data recorded on a Dry-in-Shell (DIS) basis at 7–10% moisture content, as reported by the grower.

TKR Definition: Total Kernel Recovery measures the percentage of kernel recovered from the in-shell nut. Commercial export threshold is approximately 34%. A TKR of 44–47% places the A4 crop in the premium export grade.

SPAD: Soil and Plant Analysis Development - a non-destructive measurement of leaf greenness correlating with chlorophyll content and photosynthetic capacity.

Magtasium: Foliar bio-stimulant containing Magnesium and Potassium, produced through water chemistry. Patent-pending. Intended for registration as a Group 3 bio-stimulant under Act 36 of 1947.

Trial Data: No formal replicated trial was conducted during the 2026 season. Results reflect grower observations and reported measurements. A structured on-farm trial is planned for 2027.

10 Conclusions

The 2026 season represents a strong recovery for this Low's Creek operation following a difficult 2025 year. Key highlights are the Beaumont block's exceptional per-hectare yield, the A4 block's near-mature-level performance at six years of age, and improved quality metrics across all cultivars.

These results position the grower well for the 2027 season, with planned refinements to the nutrition programme and the prospect of structured agronomic trials to generate more actionable data. The Magtasium programme will continue, with more strategic timing and placement based on the experience gained during 2026.

Magtasium. Trigger the potential. Harvest the result.

TOUCH BASE WITH US

● Head Office

- Roodepoort - Gauteng

● Manufacturing Plants

- Tarlton - Gauteng
- Citrusdal - Western Cape

● Depots

- George - Western Cape
- Groblersdal - Limpopo
- Nelspruit - Mpumalanga
- Kirkwood - Eastern Cape
- Polokwane - Limpopo



CORPORATE IDENTITY



SPECIALIZATION

Group 3 Bio Stimulant
(Trials Underway for Registration)

STATUS

- Pending Worldwide Patent
- Conducting Trials



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