Subtrop Bulletin
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Avocado Management in Brief: November - December

Nutrition: Soil-applied fertiliser

Base fertiliser applications on soil and leaf analyses, tree size, cultivar and crop load.

- **Soil pH and lime:** Apply calcitic or dolomitic lime according to soil analysis. Specify whether pH is measured in water or KCl when interpreting results. Use dolomitic lime where magnesium is also deficient.
- **Calcium (Ca):** Adequate calcium during flowering and early fruit development supports fruit quality. Where required, guideline applications include calcium nitrate at 200 kg/ha, or Kal-Mag-Nitrate at 300 kg/ha where magnesium is also deficient. Account for the nitrogen supplied by these products.
- **Gypsum:** Apply where additional calcium is needed without raising soil pH. Determine the rate from soil analysis rather than applying a standard maintenance dose.
- **Phosphorus (P):** Investigate supplementation where leaf-P is below 0.15%, supported by soil analysis. Where indicated, apply superphosphate at 50 g/m^2 or MAP at 15 g/m^2 of canopy-covered ground, preferably during an active root flush. Use MAP where additional nitrogen is also required.
- **Boron (B):** Apply during the November root flush where analyses indicate a requirement. Adjust rates for soil type and cultivar, using lower rates on sandy soils and for ‘Pinkerton’.
- **Young trees:** As a guideline, apply 25 g/tree/month of a LAN:MAP:KNO_3 mixture in year one and 50 g/tree/month in year two, from August to April. Use ratios by mass of 3:2:1 on sandy soils or 2:1:1 on clay or organic-rich soils. Rates refer to the total mixture.
- **Heavy-bearing trees:** Adjust nitrogen and potassium applications to crop load and nutrient status, using split applications to support fruit growth.

Pests and diseases

- **Thrips:** Scout weekly, particularly on young fruit. The published Subtrop guideline is 4 thrips per fruit; apply registered control measures when the threshold is exceeded.
- **Sucking bugs/stinkbugs:** Scout weekly in the early morning. Record pest numbers and fruit damage, and base control decisions on the applicable scouting protocol and crop load. Continue monitoring after treatment.
- **False codling moth (FCM):** Monitor weekly using Delta traps with pheromone lures, together with fruit inspections for eggs and damage. Record catches per trap per week and follow the applicable control and export-market requirements.



- **Cercospora and pepper spot:** Maintain preventative protection during warm, wet conditions, ensuring thorough spray coverage throughout the canopy. Adjust spray timing and frequency to cultivar, rainfall, disease pressure and previous packout losses. Pepper spot on 'Hass' is a separate disease concern and may require additional protection where there is a history of infection.
- **Phytophthora root rot:** Early-season phosphonate injections can increase fruit-due risk. Plan treatment timing around tree growth stage, harvest dates, product labels and export requirements. Severely affected trees also require a due-management plan; tree condition does not remove MRL obligations. Refer to SAAGA's phosphonic acid guidance.
- **Avocado sunblotch viroid:** Monitor regularly, confirm suspected infections through laboratory testing and remove confirmed infected trees. Assess neighbouring trees, as infected trees may remain symptomless. Disinfect pruning, harvesting and injection equipment between trees.

Tree Management

- **Sunburn and heat stress:** Add protection of young trees, exposed branches and fruit ahead of hot weather. Emphasise maintaining suitable soil moisture and avoiding excessive canopy exposure through pruning.
- **Summer pruning:** Include selective removal of water shoots and management of regrowth after winter pruning to prevent the canopy becoming too dense.
- Mulching and weed management: Maintain organic mulch over the root zone, keep it away from trunks, and manage competing weeds, especially around young trees.
- **Irrigation:**
    - For irrigated orchards, monitor shallow tensiometer readings, which should range from -10 to -30 kPa in November. In December, these readings should range from -30 to -50 kPa.
    - For deeper tensiometer readings, the range should be -20 to -40 kPa in November and -30 to -50 kPa in December. Additionally, perform squeeze tests to assess soil moisture before irrigating.

N.B. Please refer to the SAAGA website for the latest registered chemicals and their MRLs. Liaise with your exporter/ packhouse on products acceptable in your export market. Not all products registered for use in SA are acceptable in the export market.



SAMGA Board Meeting, 30 September 2026

- Andre Botha will be visiting mango farms in Mozambique that export to SA to observe processes relating to the protocols for export to SA, and track the fruit and its quality once it enters South Africa.
- A tour to the production regions is being arranged for horticulture students form Stellenbosch University in November 2026 to introduce them to the mango, litchi and avocado industries.
- The following research projects are under consideration for funding:
    - Cultivar Evaluation
    - Development of local market maturity parameters
    - Temperature and controlled atmosphere regimes for Keitt exports.
- Thiabendazole has been registered by ICA Chemicals as an alternative post-harvest treatment for anthracnose.

Mango Management in Brief: November - December

Phenology: Fruit development to harvest

Diseases

For the treatment of Bacterial blackspot, Anthracnose and Soft brown rot use copper oxychloride products @ 250 g - 300 g/100 L water. Buffer spray mixture to pH 6.5 or higher.
Remember the Azoxystrobin spray 21 days before harvest @ 40 ml/100 L water. Mixture is stable over a wide pH range but add a sticker. Not for dried mangoes.

Mango Blossom Malformation

- Apply Lima 400 SL monthly in November and if possible, December, depending on the "withholding period" as specified (50 days).
- Practise orchard sanitation by removing all malformed flowers still left in the orchards, once they dry out, they are a huge source of inoculum infecting the new flush to come, resulting in malformed flowers the following season.
- **Lima should not be used on fruit destined for export.**

Fruit fly

- Monitor the fruit fly population and spray accordingly with registered products:
    - Apply GF120 NF as a band of coarse droplets every 7–14 days depending on population pressure.
    - Use M3 bait stations.



Bactrocera dorsalis

- Ensure that Methyl Eugenol traps are placed in areas where infestation is most likely.
- Methyl Eugenol attracts male species of *Bactrocera dorsalis* and other members of the *B. dorsalis* complex fruit flies.
- Traps should be hung 1.5 m high in the shade, the south-eastern side of trees and not more than 500 m apart.
- Replace lures in traps every 6 - 8 weeks.

Removal permits: Ensure that removal permits are in order before the season begins.
Orchard sanitation: Remove fruit that has fallen on the ground, especially for the control of fruit flies and mango seed weevil.
Mango scale: Monitor 10 trees/ha for scale crawlers

Nutrition

- Foliar sprays (B & Zn) - Foliar sprays on new flush
- Nitrogen (N) - 50% N directly after harvest
- Calcium (Ca) - Apply 45% Ca according to analysis
- Magnesium (Mg) - 50% after harvest

Prior to harvesting: Soil moisture must be reduced to -50kPa for cultivars prone to lenticel damage, this will reduce the turgor in the fruit which will reduce the damage due to further handling of the fruit.
Make use of the colour chart available from SAMGA to ensure the optimum picking maturity. (Sample 20 fruit / 100 trees)

Picking recommendations

- Handle fruit with care to avoid marks on the skin.
- Take care not to smear latex over the fruit and fruit should be de-sapped.
- Keep lug boxes / bulk bins clean and in the shade in the orchard while picking.

Pruning

- Cut windows and prune immediately after harvest to maintain size and shape, try not to reduce canopy by more than 20% at one time.
- Remove all panicles, they can be a source of disease.

Irrigation
Full irrigation until the hardening of the first flush after harvest.

N.B. Please refer to the SAMGA website for the latest registered chemicals and their MRLs and liaison with exporter/ packhouse on products acceptable in your designated export market despite being registered and accepted in the South African market. Please check with your exporters whether you can use chemicals that are flagged as yellow or red under Export Market Retailer status.



SALGA Board Meeting, 17 September 2026

- Thomas Holder has been elected as the new SALGA chairman, and Nick Grantham as vice-chairman. Bram Snijder will serve a two-year term as past chairman. André Schoeman (outgoing past-chairman) will remain on the board as an independent director due to his extensive knowledge of litchi production and research. Derek Donkin has been appointed for a further 2-year term as managing director.
- Exceedance of the sulphur dioxide (SO_2) MRL for remains a major risk of the industry. Consequently, SALGA will be funding research to develop a more reliable test SO_2 dues, and investigate the relationship between SO_2 dues and packhouse practices.
- Other research projects which will be funded in the coming season include investigation into fruit damage caused by high temperatures, and practices to maintain optimum production in mature orchards.

Litchi Management in Brief: November - December

Nutrition

- Early cultivars: apply 30% of annual N & K after harvest.
- Late cultivars: apply 30% of annual N & K two weeks prior to end of harvest.

Irrigation

- Ensure optimum irrigation for good recovery and starch accumulation.

Pest and disease management

Fruit fly

- Monitor fruit fly numbers with traps and control with poison bait where necessary.
- Apply GF-120 as prescribed on the label.
- Ensure that removal permits are in order three weeks before harvesting begins.

Litchi Moth / False codling moth

- Monitor and control with registered products.

Harvest and Postharvest

- Pick fruit selectively in the morning and keep in the shade the whole time.
- Apply a sulphur fumigation on dry fruit within 3 hours of picking or a Prochloraz treatment directly after harvest (180ml/100L water for 30 seconds) and cold storage at 1°C.
- Prune immediately after harvest.

N.B. Please refer to https://litchisa.co.za/docs/mrls/ for the latest registered chemicals and their MRLs and liaison with exporter/ packhouse on products acceptable in your designated export market despite being registered and accepted in the South African market. Please check with your exporters whether you can use chemicals that are flagged as yellow or red under Export Market Retailer status.



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