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PRODUCTION GUIDELINES / SOUTH AFRICA

Eggplant



ESTABLISH IN WARMTH. HARVEST FOR QUALITY.

Practical production guidance for eggplant, brinjal and aubergine: plan the market, maintain balanced growth and protect delicate fruit after harvest.

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PLAN THE CROP

Choose the market first

Scope: fruit production of Solanum melongena in field conditions, with additional planning points for protected crops. Local planting windows depend on frost, heat and market demand.

Specify the product

Agree the fruit type, size, shape, colour and pack with the buyer. Oval purple fruit, long slender types and speciality colours serve different markets. Compare local trials and confirm seed availability before allocating the full area.

Decision	Crop-plan entry
Grade	Required length, diameter or mass; colour; calyx condition; permitted marks and pack count.
Season	Frost-free growing period, likely heat stress, nursery lead time and delivery window.
Field	Drainage, soil history, previous solanaceous crops, weed pressure and access.
Capacity	Support, repeated picking, careful grading, cooling and transport.
Economics	Budget on saleable fruit after grading, with labour and packaging counted separately.

Provide a warm establishment window

The 2026/27 commercial guide gives roughly 21-29°C as a favourable growth range and notes reduced growth and fruit set below about 18°C. Treat these as planning references; choose dates from local conditions rather than importing a northern-hemisphere calendar. [1]

Protected-crop planning: record ventilation capacity, crop support, working space and the supplier's training plan. A tunnel does not guarantee suitable night temperatures or summer heat control.

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ESTABLISH & SUPPORT

Establish strong plants

Plan nursery production backwards from a suitable transplanting window. Inspect plant health before accepting a batch.

Use strong, healthy transplants

Choose compact seedlings with healthy leaves and roots. Acclimatise plants gradually and transplant into warm conditions after frost risk. Keep root balls intact and install supports early to avoid later root disturbance. [2]

Checkpoint	Starting guidance
Nursery timing	The commercial guide uses about 8-10 weeks before field planting as a reference. Adjust for nursery temperature, plug size and actual plant development. [1]
Field spacing	A reference range is about 1.2-1.5 m between rows and 0.6-0.9 m within rows. Adjust for cultivar, equipment, support and canopy width. [1]
Planting quality	Set the root ball at its previous soil level, settle soil around it and check irrigation reaches the roots. [2]
Support and access	Leave enough room for inspection and careful harvest. Check ties as stems thicken, and keep fruit clear of damaging surfaces.

Calculate the real plant requirement

Example only: 1.5 m rows x 0.75 m between plants gives about 8,889 plants per planted hectare. Exclude headlands and paths, then add an agreed allowance for replacements. Record whether area means planted beds or the total block.

Training: select the system with the cultivar adviser. Review any pruning against plant vigour and fruit exposure. Excessive leaf removal can leave fruit vulnerable to sunburn. [2]

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WATER & NUTRITION

Balance leaves and fruit

Prepare the nutrient programme from soil and water results. Keep the crop growing steadily through flowering and repeated harvest.

Feed from evidence

Base phosphorus and potassium on the soil report and schedule nitrogen for the production system. Tissue testing can help investigate an emerging imbalance. Excess nitrogen may produce leafy plants that bear slowly; do not respond to poor fruit set with fertiliser alone. [1, 2]

Observation	Check before changing inputs
Wilting	Inspect moisture at root depth, emitter delivery, drainage and root health. Compare hot afternoon symptoms with the following morning.
Poor fruit set	Review heat or cold, plant vigour and moisture. Keep a dated record of flowering and weather rather than assuming one cause.
Blossom-end damage	Uneven moisture can contribute to blossom-end rot. Check water supply and root function before treating every case as a simple calcium shortage. [2]
Leaf yellowing	Map distribution and compare affected with healthy plants. Use soil, water or tissue analysis when symptoms are unclear.
Drip system	Record actual output and runtime; inspect blocked outlets and leaks. Include rain when reviewing the field water balance.

Reduce avoidable stress

Maintain consistent moisture without saturating the soil. Manage weeds while small and avoid deep cultivation around roots. Mulch and irrigation choices should suit local heat and soil conditions. [2]

Input record: date / block / product and nutrient amount / irrigation volume / test results / observed response. Keep farm-specific feed targets with the crop plan; no blanket foliar-feed or hormone programme is prescribed here.

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CROP HEALTH

Diagnose wilt and leaf injury

Inspect new growth, leaf undersides, stems, fruit and roots. Use crop history and laboratory support when similar symptoms have several possible causes.

Concern	Monitoring and response
Verticillium wilt	Drooping, yellowing and internal vascular browning can occur. The pathogen persists in soil and has many hosts; short rotations alone may not resolve an affected field. Confirm diagnosis before replanting. [4]
Spider mites	Look for yellowing, webbing and defoliation, including hot spots near dusty tracks. Examine leaf undersides and follow spread over time. [5]
Other insect damage	UC IPM identifies aphids, whiteflies, thrips and caterpillars among eggplant concerns. Identify the local species and damage before treatment. [3]
Root rot or seedling loss	Check drainage, planting depth and irrigation as well as pathogens. Keep clean planting material separate from suspect batches. [3]
Mosaic or distorted growth	Keep a record of symptoms and distribution and seek diagnosis. Crop-specific virus resources are available in the UC IPM guide. [3]

Use the diagnosis in the next crop plan

Retain affected-block maps, sampling results and treatment outcomes. Ask an adviser to choose rotations and other prevention measures for the actual pathogen, rather than assuming all related-crop diseases share one solution.

Before treatment: verify South African registration for eggplant and the target, follow label directions and intervals, and keep spray records. Confirm buyer or export residue requirements. Imported pesticide tables do not authorise local use. [7]

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HARVEST & COOLING

Keep the gloss and firmness

Harvest to the agreed fruit type and grade. Train the team with an accepted sample and separate trays for specific defects.

Pick before overmaturity

Firm, glossy fruit with immature seeds are preferred. Cut fruit from the plant and protect it from punctures, abrasion and compression. Cool promptly after harvest to reduce water loss. [6]

Checkpoint	Postharvest guidance
Temperature	UC Davis recommends 10-12°C for eggplant, with 90-95% relative humidity. [6]
Chilling	Below 10°C, cumulative chilling can cause pitting, bronzing and internal browning. Do not use a generic near-freezing vegetable store. [6]
Market life	Storage is generally less than 14 days. Type, handling and temperature history affect performance; slender types can lose water rapidly. [6]
Ethylene	Avoid exposure to ripening produce; it can accelerate calyx loss and deterioration. [6]
Packing	Check fruit-to-fruit pressure, calyx punctures, ventilation and pack count. Inspect a trial shipment before adopting a new pack.

Dispatch by lot and condition

Record block, harvest date, grade, accepted mass, product temperature and customer. Retain a sample from each trial lot and assess condition at the expected sale time. Export decisions need a validated route and buyer agreement, not a general air-versus-sea rule.

Harvest review: separate oversize or dull fruit, scratches, punctures, shrivelling and decay in the reject record. Compare losses by picking team, pack and delivery route to identify the next practical improvement.

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FILLABLE CROP PLANNER

Your next planting

Save a copy before filling it in. Use a PDF reader that supports forms and keep the completed record with your field documents.

Farm / block / previous crop

Fruit type / cultivar / seedling lot

Transplant date / expected harvest window

Spacing / support / plant count / area

Buyer / fruit grade / packaging

Soil and water results / nutrient plan

Next action / responsible person / due date

Ready-to-plant checks

- [ ] Market grade confirmed
- [ ] Seedlings inspected
- [ ] Crop health plan reviewed
- [ ] Planting window checked
- [ ] Irrigation delivery tested
- [ ] Cooling and packs ready

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REFERENCES & EDITION NOTES

Sources you can follow

Independent sources reviewed on 17 September 2026. Links are clickable. Older sources support established principles; overseas dates and product approvals are not transferred to South Africa.

01. Mid-Atlantic Commercial Recommendations - Eggplant (2026/27)
Temperature, transplanting, spacing and soil-test nutrient planning.

02. UMN Extension - Growing Eggplant
Establishment, support, moisture and fruit-quality principles.

03. UC IPM - Eggplant Pest Management Guidelines
Crop-specific diagnostic and monitoring resources.

04. UC IPM - Verticillium Wilt of Eggplant
Wilt symptoms and long-term soilborne disease risk.

05. UC IPM - Webspinning Spider Mites on Eggplant
Leaf injury, hot spots and monitoring.

06. UC Davis Postharvest - Eggplant (1997)
Harvest maturity, cooling, humidity and chilling sensitivity.

07. SA Department of Agriculture - Maximum Residue Limits
Crop registration, spray records and destination residue requirements.

About this edition. Original AgriCart editorial synthesis for planning and education. Obtain farm-specific advice before setting inputs and crop-protection programmes. No yield or shelf-life guarantee is implied. Cover image is AI-generated illustration, not a documented farm or named cultivar. Source organisations do not endorse AgriCart.