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PRODUCTION GUIDELINES / SOUTH AFRICA

Sunflowers



CUT FLOWERS AND POT PLANTS. PLAN THE FINISH.

Ornamental sunflower production for saleable stems and flowering pots, with cultivar-specific scheduling, careful handling and a practical crop planner.

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MARKET & CULTIVAR

Choose stems or flowering pots

Scope: ornamental Helianthus annuus. Oilseed and edible-seed sunflower production require a separate crop and harvest programme.

Decision / crop	Practical guidance
Single-stem cut types	Usually one principal marketable flower per plant. Plan repeated sowings for continuing supply; do not pinch these plants. [1]
Branching cut types	Produce multiple stems and need more space. Pinching and harvest strategy must suit the selected cultivar. [1]
Dwarf pot types	Select genetics bred for compact finished plants and confirm the pot size, flower stage and target plant dimensions. [4]
Pollen and appearance	Agree pollenless or pollen-bearing, petal colour, centre colour, flower diameter and stem length. Pollenless does not mean every flower is identical.
Customer specification	Record bunch size, sleeves, pot cover, labelling, delivery date and rejection criteria before buying seed.

Cost the saleable unit

For stems, include seed, bed space, supports, harvest labour, conditioning and rejected stems. For pots, include medium, container, bench time, sleeves and transport space. Use current local prices in the enterprise budget. [2]

Run a small local trial

Compare the proposed cultivar in the intended season and structure. Record sowing-to-sale time, accepted units and buyer feedback before promising a weekly volume.

Before ordering: cut or pot / growth habit / flower specification / finishing date / trial results / delivery route.

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ESTABLISH & SCHEDULE

Plan each sowing as a batch

Use clean propagation materials and keep cultivar and seed-lot labels with the crop. Calendar days from another climate are a starting point only.

Decision / crop	Practical guidance
Direct sowing	Use a prepared, weed-managed bed and consistent seed placement. Record soil conditions and actual emergence rather than relying only on a sowing date.
Transplants	Use a suitable plug system and transplant promptly without damaged or tightly bound roots. Reserve enough finishing space before sowing.
Cut-flower spacing	USU uses about 10-15 cm in-row for single stems and 45-60 cm for branching types. Treat these as trial references, not universal commercial targets. [1]
Succession batches	A 1-3 week sowing interval is a published starting range for single stems. Local temperature and daylength can compress or stretch harvest intervals. [1]
Daylength	Response varies with cultivar. Check the breeder's current culture sheet and trial the response before using blackout or supplemental lighting. [3]

Design a useful trial

Label several small batches and record emergence, visible bud, first cut and final accepted sale. Compare stem length, flower diameter and days occupying the bed or bench.

Keep access and support practical

Set paths for harvesting without damaging adjacent stems. Evaluate wind exposure and the need for support netting early, before stems lean or become difficult to handle.

Batch record: cultivar / seed lot / sowing / emergence / spacing / daylength treatment if any / bud date / sale window.

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WATER & POT QUALITY

Build quality from the roots

Field beds and containers need different measurement methods. Do not copy a field fertiliser rate into a small pot.

Decision / crop	Practical guidance
Field nutrition	Base inputs on soil tests, previous amendments and crop observations. Include nutrient and labour costs in the trial record.
Container medium	Specify a clean, well-drained medium with known pH and initial salts. Check the batch rather than assuming all mixes perform alike.
Water supply	Test source water and measure delivery. Check moisture across the bed or bench and investigate uneven dry-down.
Pot finish	Use the selected cultivar's guidance for plants per pot, finishing space and timing. A compact cultivar can reduce the need for chemical height control. [4]
Height management	Review genetics, light, spacing and crop timing first. Any growth-regulator use needs current local approval and a cultivar-specific trial. [7]

Separate pH from alkalinity

Water pH is not a direct measure of the acid dose required. Obtain suitable water analysis and professional interpretation before adjusting irrigation chemistry. Monitor the growing medium with a consistent sampling method.

Grade a sample before dispatch

Check plant stability, even branching, flower stage, leaf quality, root condition and fit inside the sales sleeve. Keep a retained sample under realistic retail conditions to test the promised selling window.

Bench log: batch / moisture / delivered water / medium readings / height / bud stage / root health / next action.

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CROP HEALTH

Keep propagation and harvest clean

Inspect roots, stems, both leaf surfaces and flower heads. A damaged ornamental may fail the buyer's grade even when total biomass is high.

Decision / crop	Practical guidance
Seedling collapse	Check excessive wetness, drainage, seed placement and root or stem lesions. Separate affected trays and obtain a diagnosis.
Leaf spots or mildew	Record the pattern, leaf surfaces and recent humidity. Keep affected plants identifiable and avoid guessing the pathogen from one photograph.
Insects and mites	Inspect growing tips and flowers for live pests and injury. Record contamination risk to saleable heads as well as leaf damage.
Weeds	Control competition early using a system suited to the crop and site. Keep paths workable and review any herbicide against local approval. [6]
Cleaning	Remove debris and soil before applying an appropriate disinfectant. Use the correct surface, contact time and label procedure. [5]

Use a diagnosis-based programme

Confirm the actual problem and set an action appropriate to the crop stage and market. Keep treatment records and check effects on flower appearance, beneficial insects and workers.

Check ornamental registration

Do not treat a food-crop or overseas recommendation as automatic approval for ornamental sunflowers. Verify South African registration for the intended use, follow worker re-entry instructions and test for phytotoxicity where the approved label requires it. [7]

Scouting sheet: batch / symptom or pest / proportion affected / diagnosis / intervention / re-entry time / recheck date.

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HARVEST & DISPATCH

Handle stems and pots separately

Prepare clean buckets, tools, sleeves and transport before the crop reaches the buyer's preferred stage.

Decision / crop	Practical guidance
Cut-flower stage	For suitable cut cultivars, harvest as ray petals begin lifting from the centre. More open flowers may have a shorter useful selling period. [1]
Stem conditioning	Remove leaves that would sit below water, place stems promptly into clean water and keep bucket and tool hygiene consistent. [1]
Cut-stem cooling	USU gives about 2-5°C as a cut-flower reference. Validate the cultivar, conditioning process and delivery duration in a vase-life trial. [1]
Flowering pots	Dispatch rooted, stable plants at the agreed bud or open-flower stage. Confirm moisture before sleeving and protect flowers from crushing.
Pot transport	Use a ventilated, weather-protected route and minimise delays. Do not automatically apply a cut-stem refrigeration programme to living pots.

Use products according to purpose

Where a commercial flower-conditioning product is used, follow its instructions and measure the solution. Do not improvise untested bleach, sugar or chemical mixtures for saleable flowers.

Check performance after delivery

Retain a sample from each new cultivar or process. Record opening, drooping, water uptake, leaf yellowing and days acceptable to the buyer. For pots, record bloom progression and root-zone moisture under retail conditions.

Dispatch record: cultivar / batch / stem or pot / flower stage / accepted quantity / conditioning / temperature history / customer.

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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 / bed or bench / previous crop

Cultivar / cut or pot / seed lot

Sowing / bud / planned sale dates

Spacing / support / pot size / planted units

Buyer / flower stage / stem grade / pack

Soil or medium / water / nutrient plan

Next action / responsible person / due date

Ready-to-plant checks

- [ ] Ornamental market agreed
- [ ] Cultivar culture checked
- [ ] Succession trial planned
- [ ] Water delivery measured
- [ ] Crop health reviewed
- [ ] Conditioning and transport ready

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REFERENCES & EDITION NOTES

Sources you can follow

Independent sources reviewed on 18 September 2026. Links are clickable. Older sources support established principles; overseas dates and product approvals are not transferred to South Africa.

01. USU - Sunflower Cut Flower Production (2026)
Peer-reviewed cut-flower guidance; adapt Utah conditions locally.

02. Penn State - Cut Flower Production
Enterprise planning and production considerations.

03. UMass - Photoperiod and Bedding Plants
Cultivar variation; do not apply a universal daylength treatment.

04. PanAmerican Seed - SunBuzz Grower Information
Example of a compact pot cultivar; supplier claims are cultivar-specific, not endorsement.

05. UMass - Cleaning and Disinfecting Greenhouses
Cleaning, crop debris and propagation hygiene.

06. Penn State - Weed Control in Cut Flowers
Competition management; foreign herbicide lists are not local approval.

07. South African Government - Agricultural remedies
Verify current South African crop, target and use approval.

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.