GrowerFacts

Kieft-Pro-Seeds

Revolution F1 Series Gerbera

Gerbera jamesonii
Approximate seed count (film coated): 8,550-11,400 S./oz. (300-400 S./g)

Plug Production

Media
Use a well-drained, disease-free, soilless medium with a pH of 5.0 to 5.5 and a medium initial nutrient charge (EC 0.4 to 0.8 mmhos/cm with a 1:2 extraction).

Sowing
Sow 1 seed per plug in a dibble. Plug tray size from 144 to 128. Make sure seed is lying on its side in a dibble at sowing so radicle isn't upside down at emergence. Cover the seeds lightly with vermiculite (course to extra course) to prevent drying out. Cover is important at sowing but too much isn't good either. Some of the top of the plug tray should be visible after covering but the seed should be covered completely. Use a preventive treatment, e.g. Rovral (iprodion) half concentration against damping-off diseases directly after sowing.

Stage 1 – Germination takes 4 to 7 days.
Soil temperature: 64-68°F (18-20°C)
Light: Light is optional.
Moisture: Keep soil saturated (level 5) during Stage 1 for optimal germination.
Humidity: Maintain 95% relative humidity (RH) in chamber or germ tent on bench until radicle emergence.

Stage 2
Soil temperature: 68 to 70°F (20 to 21°C)
Light: Up to 2,500 f.c. (26,900 Lux)
Moisture: Start to slightly reduce soil moisture (level 4) to allow the roots to penetrate into the media.
Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mmhos/cm EC) from nitrate-form fertilizers (17-5-17 or 14-0-14).

Stage 3
Soil temperature: 68 to 70°F (20 to 21°C)
Light: Up to 2,500 f.c. (26,900 Lux)
Moisture: It is critical to allow the media to dry until the surface become light brown (level 2) before watering. Keep the moisture level at wet-dry cycle (moisture level 4 to 2).
Fertilizer: Increase fertilizer to rate 2 (100 to 175 ppm N/0.7 to 1.2 mmhos/cm EC) from nitrate-form fertilizers (17-5-17 or 14-0-14).
Growth Regulators: None

Stage 4
Soil temperature: 68 to 70°F (21 to 21°C)
Light: Up to 5,000 f.c. (53,800 Lux) if optimal temperature can be maintained.
Moisture: Same as Stage 3.
Fertilizer: Same as Stage 3.

Note: During plug production, fine drip or mist is best, using a water temperature similar to or around air temperature. Irrigation with too cold water will cause foliage to cup up hard and brittle. Once this happens, keep media dry for a few days and water later with warmer water.

Growing On to Finish

Media
Use a well-drained, disease-free, soilless medium with a pH of 5.5 to 6.0 and a medium initial nutrient charge.

Container size

Micro	3-3.5 in. (7-9 cm)
Mini	3.5-4 in. (9-10 cm)
Standard	4-5 in. (11-13 cm)
Mega	6 in. and up (15 cm and up)

Potting
Uniformity at all levels in production will greatly increase uniformity of overall crop.
Uniform soil level in pots; fill pots 100%!
Dibble in center of pot and set plant in hole.
Soil depth of transplanted plug in comparison to the soil level in the pot should be slightly above to level. Plug will pull itself down to level but not bring itself back up. Do not pot too deep as this may result in crown rot.

Temperature
Nights: 62 to 66°F (17 to 19°C)
Days: 66 to 68°F (19 to 20°C)

In darker periods, day and night temperatures can be reversed (negative DIF) to keep stem length somewhat shorter.

Light
Gerbera likes to be grown under high light conditions. During the darker periods of the year, additional lighting can be applied.

Irrigation
Generally Gerbera likes a moderate to drier soil condition. Avoid extreme moisture swings in crop culture. Overwatering is a common practice that can decrease end yield.

Overhead watering is possible until the flower buds appear, but watering directly into pot or growing with ebb/flow floors is preferred. Drip tube culture works well, too.

Fertilizer
Gerbera requires relatively high fertilization frequencies dependent on light and temperature; less feed for lower light/shorter days, more feed for higher light/longer days. See following table for fertilizer general guidelines in different stages.

	N	P	K	Total EC	Advise
Young plants	1	1	1	0.5	Peters 10-52-10 (alt. 10-30-10) one shot helps root growth.
Potting	2	1	1	1	
Spacing	1	1.5	2	1	
Flowering	1	2	2	1.3*	

* Remark 1.3 = advise, if higher EC is necessary, wash the plants with fresh water if fed during sunny weather.

See Kieft-Pro-Seeds Website (www.kieftseeds.com) for more specific details.

Use clear water 1 time each week or when necessary to maintain EC below 1.5 mmhos/cm.

Avoid excessive ammonia nitrogen levels. This will cause excessive leaf growth and lower bud counts. Extreme levels will burn roots and deteriorate crop and increase losses.

Growth Regulators
Generally, growth regulators are not used in normal production. To reduce stretching when growing pot tight, B-Nine/Alar (daminozide) can be applied at 1000 to 1500ppm (1.2 to 1.8 g/l of 85% formulation or 1.6 to 2.3 g/l of 64% formulation) 2 to 3 times with an interval of 5 to 7 days. Do not apply when flower buds are the size of a pea or bigger to prevent decrease of flower size.

Pinching
None

Spacing
Space plants when the leaves of the plants are touching each other, generally 5 to 6 weeks after transplanting.

Crop Scheduling
Sow to transplant (144 to 128-cell plug tray): 6 to 7 weeks
Bulking after transplant: 4-6 weeks
Finishing the crop: 4-6 weeks
Note: Crop Schedule is dependent on the sowing date, the available light and the required pot/plant ratio. Total crop time is approx. 14-15 weeks from sowing to 50% flowering. 100% color will appear 10-14 days later.

Common Problems
Insect: White flies, thrips
Disease: Downy mildew, Crown rot, Botrytis, Fusarium

Postharvest
Sleeving: Special wrapping sleeves are available in most countries. Do not use plastic; paper or polypropylene is preferred.

Note: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations.

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