

easy grow guide

geranium horizon/horizon shadow/divas



Plug Production: 288 plugs or larger

Sowing/Media:	Use a well-drained, disease-free, peat-based plug medium with pH 6.0-6.2, EC <0.75mmhos. Media should be saturated prior to sowing for optimum germination. Cover seed with vermiculite, or a vermiculite/media mix and irrigate again to ensure the vermiculite is wet. High moisture levels are critical for success.
Germination Stage 1 & 2: (5-7 days)	Media temperature should be 70-73°F (21-23°C). Temperatures higher than 25°C (77°F) can cause thermo-dormancy. Keep light levels <1500 f.c. Light is not essential for germination but is beneficial. Maintain temperatures and high humidity until days 5-7.
Germination Stage 3:	Media temperature can be dropped to 65-68°F (18-20°C), light levels should be <3000 f.c. HID lights can promote growth and faster flowering in periods of low light. Fertilize with 100-150ppm N from 15-5-15, 17-5-17 or 13-2-13, keep media pH at 6.0-6.5 no lower and EC <1.5mmhos.
Germination Stage 4:	Media temperatures can be lowered to 62-65°F (16-18°C), light levels should be maintained around 3000 f.c. Dry down between irrigations but avoid wilt. Fertilize with 100-150ppm N from 13-2-13 to tone seedlings. When 3 true leaves are present, you can begin to spray with Cycocel (250-750 ppm) or B-Nine (800-1500) + Cycocel (250-500 ppm) to control growth. It is best to run your own trials to avoid overdosing, as weather and cultural regimes can affect the requirements.

Growing on to Finish: Packs, 4" (10cm) pots

Media:	Use a well-drained, disease free, peat-based growing mix with pH 6.0-6.2 (no lower) and EC <1.5mmhos.
Temperatures:	Temperatures for rooting out after transplant should be 65-68°F (18-20°C) Temperatures for growing on can be lowered to 62-65°F (16-18°C)
Light:	Light levels should be 3000-5000 f.c. as a guide. HID lights can be used in low light periods to give more total light and encourage flowering.
Irrigation:	Practice a good wet/dry moisture cycle but avoid wilting. Geraniums do not like to be too wet but can't tolerate wilt either.
Fertilizer:	Feed 1-2 times per week with 150-200 ppm N from 15-5-15, 17-5-17, or 13-2-13, it is best to use calcium-based fertilizers, extra iron can be added if needed. Keep media pH 6.0-6.8, and media EC 1.25-1.75 mmhos, any higher can cause root damage.
Growth Regulators:	Use sprays of Cycocel (350-1500 ppm) or B-Nine (800-1500) + Cycocel (350-1000 ppm) to control growth. Bonzi sprays (2-5 ppm) can also be used once the foliage covers the media but do not drench with Bonzi as it has a strong effect on Geranium growth. It is best to run your own trials to avoid overdosing, as weather and cultural regimes can affect the requirements
Pests:	Aphids, Thrips
Diseases:	Pythium, Botrytis, Alternaria Leafspot, Rust. Necrosis on lower leaves is likely to be caused by media pH <6.0, upper yellow leaves – high media pH >6.8 or low iron.

Plug Times:

288 plug:	4-6 weeks from sowing to transplant
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Transplant to Finish:

Container	Plants per Container	Transplant to Finish	Total Crop Time
Packs:	1 x plug per cell	8-10 weeks	12-14 weeks
4" (10cm):	1 x plug	10-11 weeks	14-15 weeks
6" (15cm):	1 x plug	12-14 weeks	16-18 weeks

Crop times are based on optimum conditions. Alternative environmental conditions and cultural regimes can lengthen the crop times stated above.