

## Pelargonium (Geranium) F1 Nano - natural dwarf

<b>Life cycle</b>	Annual, tender perennial
<b>Family / Origin</b>	Geraniaceae / South Africa
<b>Popular uses</b>	Outdoor containers, pot and pack, suitable for borders and beds
<b>Mature plant height</b>	20-25 cm (8-10")
<b>Mature plant width</b>	20-25 cm (8-10")
<b>Pot size</b>	Packs, 8-10 cm (3-4") pots
<b>Plants per pot</b>	1 plant in 10 (4") pot 3 plants in larger pots and container
<b>Sun exposure</b>	Sun or partial shade
<b>Water requirements</b>	Reduced, avoid wet conditions
<b>Flowering time</b>	Entire growing season
<b>Media</b>	A well-drained, porous media is best to prevent over watering pH 5.5-6.2 EC 0.5-1 (75-150 ppm N)
<b>Growing temperature</b>	Temperature for active growth 14-18°C (57-64°F) at night Days up to 25°C (77°F) Higher average day temperature will speed up the process
<b>Light</b>	Increase total light energy to promote early flowering Extending the day length is not necessary, but promotes bud set
<b>Fertilizer needs</b>	Balanced N:P:K fertilizer as needed Ammonium based fertilizers are not recommended, use calcium based fertilizers EC 1.8-2.2 (270-330 ppm N)
<b>Crop time</b>	14-17 weeks



### Description

Nano geraniums are genetically dwarf, which makes the use of growth regulators unnecessary

### Growth regulators

Chlormequat (Cycocel) and Paclobutrazol (Bonzi); Cycocel most commonly used!

### Common diseases

Botrytis, Pythium, Alternaria, Pseudomonas, Rust

### Common pests

Thrips, Aphids

### Pinching

No need

### Hardiness zone

Z 9b-11



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## Plug Production

<b>Seed forms</b>	Raw
<b>Seed count</b>	180-250 seeds/gram (5.000-7.000 seeds/oz); varies by lot!
<b>Recommended plug size</b>	264
<b>Seeds cell</b>	1
<b>Vermiculite cover</b>	Light
<b>Stage 1 Germination</b>	<p>Media: pH 6.0-6.5; pH lower than 6.0 can promote shoot tip abortion and cause Na, Fe and Mn to become toxic. Symptoms of nutrient toxicity will manifest on the lower leaves.</p> <p>Moisture: geranium seed plenty of moisture, keep medium saturated</p> <p>Temperature: 22-25°C (72-75°F) average temperature</p> <p>Higher temperatures will result in poor germination due to thermal dormancy</p> <p>Lower temperatures will result in slow and less uniform germination</p> <p>Fertilizers: EC 0.5-1.0 (75-150 ppm N); a higher EC will result in poor root formation</p>
<b>Stage 2 Stem and cotyledon</b>	<p>Moisture: reduce moisture levels slightly to promote root penetration</p> <p>Temperature: 21-25°C (70-77°F)</p> <p>Fertilizers: use calcium-based fertilizers at EC 0.5-1 (75-150 ppm N)</p> <p>Lighting: in areas with low light, use supplemental lighting at 4.000-4.500 lux (372-418 fc) which promotes early flowering and more compact growth habit</p>
<b>Stage 3 Growth and development</b>	<p>Moisture: reduce moisture levels and allow medium to dry between watering Do not allow plants to wilt</p> <p>Temperature: 18-21°C (64-70°F)</p> <p>Fertilizers: EC 1.4-1.8 (210-270 ppm N)</p> <p>Lighting: light can be increased to 5.000-6.000 lux (465-557 fc)</p> <p>Use shade screens when light level is higher than 37.000 lux (3.440 fc)</p>
<b>Stage 4 Ready for transplanting</b>	<p>Moisture: reduce moisture levels and allow medium to dry between watering; do not allow plants to wilt</p> <p>Temperature: 18°C (64°F)</p> <p>Fertilizers: see stage 3</p>
<b>Plug crop time</b>	4-6 weeks
<b>Approximate finish time</b>	10-11 weeks
<b>Special tips</b>	<p>Ensure sufficient ventilation to prevent high humidity. Space plants well so that the foliage does not touch each other. Do not overwater, but wilted plants in high light will scorch. Higher night temperatures promote earlier flowering and a more compact plant habit</p>



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