



## MARIGOLD F1- Dwarf and Semi Dwarf Little Ducks and Big Ducks

Scientific name	: <i>Tagetes erecta</i>
Use	: Containers and beddings
Plant Type	: Annual
Seed count	: 300-350 seeds/gram
Seed form	: Natural / De-tailed
Approximate Germination rate	: 85%

### Plug Production :



#### Media

Use a well-drained, disease free with a pH of 6.0-6.5

#### Temperature

Night: 20-25 C (68-77 F)

Day: above 25 C ( 77 F).

Low temperature may result in delay of flowering and quality of the first flowers.

High temperature will encourage flower heads to be reduced in size.

#### Key Tips

Little Ducks is naturally dwarf variety, PGRs are not required.

#### Stage 1

- Germination and radicle emergence takes approximately 3-5 days.
- Light is not required for germination.
- Keep media moisture medium wet to saturated, moisture level 4-5. No fertilizer needed at this stage.



#### Stage 2

- Expanding stem and cotyledons take approximately 5-7 days.
- Extra lighting can be supplied at 2,500-foot candles (25,000 lux).
- Keep media moisture medium (level 3) to medium wet (level 4).



#### Stage 3

- Development of first true leaves approximately in 7-10 days.
- Extra lighting can be supplied at 2,500 f.c. (25,000 lux).
- Keep media moisture levels medium and medium wet.
- Alternate dry to wet, level 3 to 4. Apply fertilizer at rate 75-100 ppm N – less than 0.7 EC) with a nitrate-form fertilizer ratio 2:1:3.
- Media that is too wet encourages the development of a weak root system and disease.



#### Stage 4

- 4-6 true leaves approximately taking 15-18 days.
- Low temperature tends to delay transplanting by 7-10 days.
- Moisture as per stage 3.
- Feed 1-2 times per week 100-150 ppm N 2:1:3 – 0.7 to 1.2 EC.
- Growth regulator may be used to reduce stretch.
- Do not hold the plugs too long, as this may induce premature flowering.







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### Plant Characteristics :

Sowing to transplant	: 15 - 25 days
Transplant to flowering	: 20-25 days
Flower size	: 8-10 cm.
Plant height	
Little Ducks	: 20-25 cm.
Big Ducks	: 30-40 cm.
Plant width	
Little Ducks	: 20-25 cm.
Big Ducks	: 25-30 cm.

**Total crop time 1st flowering to end crop :** 48-60 days.

**Growing On :** After 2-3 weeks plants can be transplanted into 10 cm (4 in) pots or packs

### Temperature :

Night : 20-25 C (68-77 F) , Day : above 25 C (77 F).

Low : temperature may result in delay of flowering and quality of the first flowers.

High : temperature will encourage flower heads to be reduced in size.

**Moisture and Irrigation :** Keep optimal media moisture between medium (level 3) to medium wet (level 4). Allow media to dry between watering and re-saturated. Avoid overhead irrigation directly to flowers, this will result in rot disease.

**Lights :** Provide full light levels as high as possible while maintaining appropriate temperatures

**Light & Photoperiodism :** Little Ducks and Big Ducks are facultative short-day plants and require full sun. If the day is longer than critical daylength ( $\approx 12$ hrs), it will affect delay flowering 10 – 14 days compared with short-daylength.

**Fertilizer :** One week after transplant, apply fertilizer weekly at 150-200 ppm N using nitrate-form fertilizer (15-0-0). Alternate with Urea based fertilizer (46-0-0). Optimum EC level is 1.0 – 1.2 mmhos/cm.

**Common Pests :** Thrips, Red spider mites, Leaf miner, Beet armyworm, Common cutworm, Snail and Slugs.

**Common Diseases :** Botrytis, Pythium, Rhizoctonia, Alternaria, Fusarium, Ralstonia, Hollow stem, Virus



**Note:** This information given is only for guideline, crop times may vary depending on the location, climate, seasons, height above sea level and environmental conditions. Application of chemicals are subject to local and state regulations. Should follow manufacturer's instruction prior to apply chemical.