

Basil Purple Ruffles

(*Ocimum basilicum*)

Germination

- Time of radicle emergence (2-4 days)
- Soil temperature 65-70°F (18-21°C).
- Keep media very moist, near saturation.
- Seed may be left covered or uncovered.
- Soil pH 5.5-5.8 and soluble salts (EC) less than 0.75 mmhos/cm (2:1 extraction).
- Basil is very sensitive to high salts, particularly high ammonium, during germination.
- Keep ammonium levels less than 10 ppm.

Plug Production

STAGE 1 Time of radicle emergence (2-4 days)

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STAGE 2 Stem and cotyledon emergence (7 days)

- Soil temperature 65-70°F (18-21°C).
- Reduce moisture levels once radicle emergence occurs! Allow the soil to dry out slightly before watering for best germination and rooting.
- Keep soil pH 5.5-5.8 and EC less than 0.75 mmhos/cm.
- Keep ammonium levels less than 10 ppm.
- Begin fertilizing with 50 75 ppm N from 14 0 14 or a calcium/potassium nitrate feed once cotyledons are fully expanded.
- Alternate feed with clear water.
- Irrigate early in the day so foliage is dry by nightfall to prevent diseases.

STAGE 3 Growth and development of true leaves (7-10 days)

- Soil temperature 62-65°F (17-18°C).
- Allow the soil to dry thoroughly between irrigations but avoid permanent wilting to promote root growth and control shoot growth.
- Maintain soil pH 5.5-5.8 and EC less than 1.0 mmhos/cm.
- Increase feed to 100 150 ppm N from 20 10 20 alternating with 14 0 14 or other calcium/potassium nitrate fertilizer.
- Fertilize every 2 3 irrigations.
- If using 15-0-15 supplement with magnesium 1 2x

during this stage, using magnesium sulfate (16 oz/100 gal) or magnesium nitrate. Do not mix magnesium sulfate with calcium nitrate as precipitate will form!

- Use DIF whenever possible, especially the first 2 hours after sunrise, to control plant height.

STAGE 4 Plants ready for transplanting or shipping (7 days)

- Soil temperature 62-65°F (17-18°C).
- Allow soil to dry thoroughly between irrigations.
- Maintain soil pH 5.5-5.8 and EC less than 0.75 mmhos/cm.
- Fertilize with 14 0 14 or calcium/potassium nitrate feed at 100 150 ppm N as needed.

Growing On to Finish

TEMPERATURE

Night -- 62-65°F (17-18°C)
Day -- 65-70°F (18-21°C)

LIGHT

Maintain light levels as high as possible while maintaining moderate temperatures.

MEDIA

Use a well-drained, disease-free soil-less medium with a medium initial nutrient charge and a pH 5.5-6.2.

FERTILIZATION

Fertilize every other irrigation with 15-0-15 alternating with 20-10-20 at 150 ppm nitrogen.

Maintain medium electrical conductivity around 1.0 mmhos/cm (using 1:2 extraction).

CONTROLLING HEIGHT

Once plants are rooted to the sides of the containers they can be allowed to wilt prior to irrigation to provide some height control.

Height can also be controlled by withholding fertilizer, especially phosphorous and ammonium-form nitrogen.

Basil is responsive to day/night temperature differential (DIF), and are shorter with a negative DIF.

Post Production Care

TEMPERATURE

Optimum temperatures for Basil:

Night: 62-65°F (17-18°C)

Day: 65-70°F (18-21°C)

Optimum conditions may be difficult to maintain, especially if plants are displayed outside.

Using a negative DIF will help keep the plants short and of high quality.

LIGHT

Basil prefers full sun.

COMMON PROBLEMS:

Insects: White fly, Spider mites

Diseases: Fungal diseases

