GrowerFacts

Tomato Candyland Red

(*Solanum lycopersicum*)

Germination

Approximate Seed Counts:
Candyland Red: 28,000-31,000/oz. (1,000-1,100/g)
Others: 6,000-15,000 S/oz. (200-550 S/g)

Media
Use a well-drained, disease-free media with a pH range of 5.5 to 5.8 and EC less than 0.5 mmhos/cm (2:1 extraction). Tomatoes are very sensitive to high salts, particularly high ammonium, during germination. Keep ammonium level to less than 10 ppm.

Sowing
Plug Tray Size
Can be produced in a 288 or similar cell size plug tray. Covering with coarse-grade vermiculite is recommended at sowing to help maintain humidity around the germinating seed for better germination performance.

Stage 1 – Germination takes approximately 2 to 3 days.

Germination temperature: 70 to 75°F (21 to 24°C)

Light: Light is not required for germination.

Moisture: Keep soil wet (level 4) during Stage 1.

Relative humidity: Maintain 95 to 97% relative humidity until cotyledons emerge.

Note: Tomatoes are very sensitive to high salts, particularly high ammonium during germination. Keep ammonium level to less than 10 ppm.

Plug Production

Stage 2
Temperature: 68 to 72°F (20 to 22°C)

Light: Can be up to 2,500 f.c. (26,900 Lux) during Stage 2.

Media moisture: Reduce moisture levels once radicle emergence occurs. Allow the soil to dry out slightly before watering for best germination and rooting (moisture level 3 to 4).

Fertilizer: Begin fertilizer at rate about 50 ppm N (less than 0.5 mS/cm EC) with a nitrate-form fertilizer with low phosphorous once cotyledons are fully expanded.

Stage 3
Temperature: 68 to 72°F (20 to 22°C)

Light: Can be up to 2,500 f.c. (26,900 Lux)

Media moisture: Allow the soil to dry thoroughly between irrigations, but avoid permanent wilting to promote root growth and control shoot growth (moisture level 2 to 3).

Fertilizer: Increase feed to 75 ppm N. Fertilize every second to third irrigation. Maintain a media pH of 5.5 to 5.8 and EC less than 0.75 mS/cm (1:2 extraction). If using 15-0-15 1 to 2 times supplement with magnesium during this stage, use magnesium sulfate (16 oz./100 gal.) or magnesium nitrate. Do not mix magnesium sulfate with calcium nitrate as precipitate will form.

Stage 4

Temperature: 65 to 68°F (18 to 20°C)

Light: Light levels can be up to 5,000 f.c. (53,800 Lux).

Moisture: Same as Stage 3.

Fertilizer: Same as Stage 3.

Plug Height Control

- Tomato plug height can be controlled by water and fertilizer management. Keep medium moisture level on dry-wet cycle, and use fertilizer with low phosphorous and nitrate-form nitrogen.
- Tomatoes are also responsive to day/night temperature differential (DIF), and are shorter with a negative DIF.
- Although Uniconazole (Sumagic) is labeled for use on tomatoes in many states, we do not recommend its use until the grower has at least trialed it on a limited basis.

Growing On to Finish

Container Size
Packs, 4-in. (10-cm) pots.

Media
Use a well-drained, disease-free media with a pH of 5.5 to 6.2 and a medium initial nutrient charge.

Temperature
Night: 62 to 65°F (16 to 18°C)

Day: 65 to 70°F (18 to 21°C)

Light
Keep light levels as high as possible while maintaining appropriate temperatures.

Fertilizer
Tomatoes respond to increased fertilization with increased growth. Earliest garden yield comes from plants which have not been stressed from insufficient nutrition. Fertilize every third irrigation with 15-0-15 or 15-5-15 at 100 to 150 ppm nitrogen. Maintain medium EC around 1.0 mmhos/cm (1:2 extraction.

Irrigation
Keep plants on the dry side.

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.
- Tomatoes are responsive to day/night temperature differential (DIF), and are shorter with a negative DIF.
- Although Uniconazole (Sumagic) is labeled for use on tomatoes in many states, we do not recommend its use until the grower has at least trialed it on a limited basis. Application rates, timing and variety response may affect growth for the home gardener.

Crop Scheduling
Sow to transplant (288-cell plug tray): 4 weeks
Transplant to saleable (green): Packs and 4-in. (10-cm) pots: 2 to 4 weeks

Common Problems
Insects: Aphids, Thrips, Whitefly
Disease: Botrytis, TSWV (INSV), Pythium

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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