

PanAmerican Seed Culture Research

Ballad Mini-Helianthus as a Gift Plant

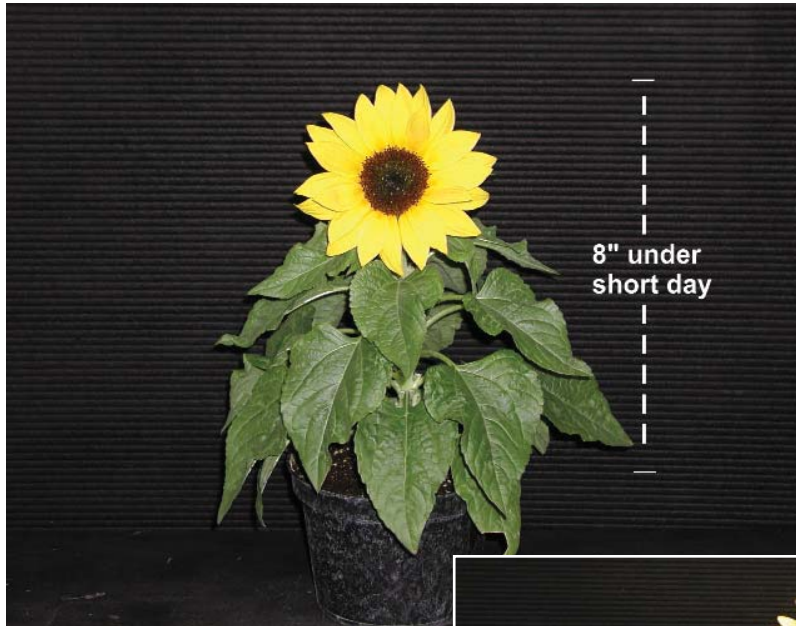


Growing Ballad Helianthus in a small container (2.5-in./6-cm pot) can produce a cute little gift plant. The plant (pictured above) was grown in a greenhouse with average temperature about 66°F (19°C) during the winter in Elburn, IL (11/22/04 to 2/9/05, crop time about 11 weeks). The plant grew naturally compact under natural short-day conditions (daylength 9 to 10 hours) without any growth regulator. It is an easy-to-grow and nice early-season gift plant. Shelf life is approximately 12 days from the time a bud starts opening to when the plant begins to wilt.

Note: when Ballad is grown in daylengths longer than 10 hours, growth regulator may be necessary to produce a compact product.

PanAmerican Seed Culture Research

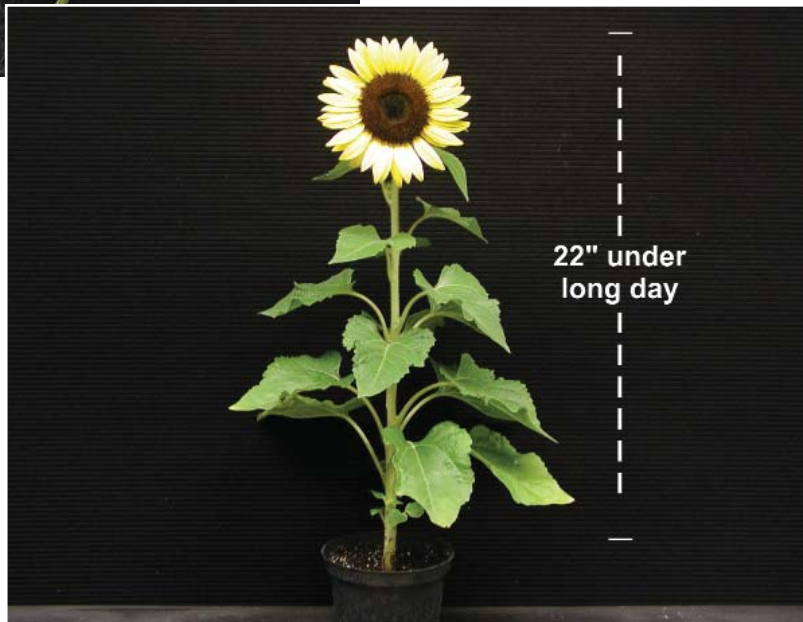
HELIANTHUS BALLAD PHOTOPERIOD RESPONSE



**Daylength
9-10 hours**

8" under
short day

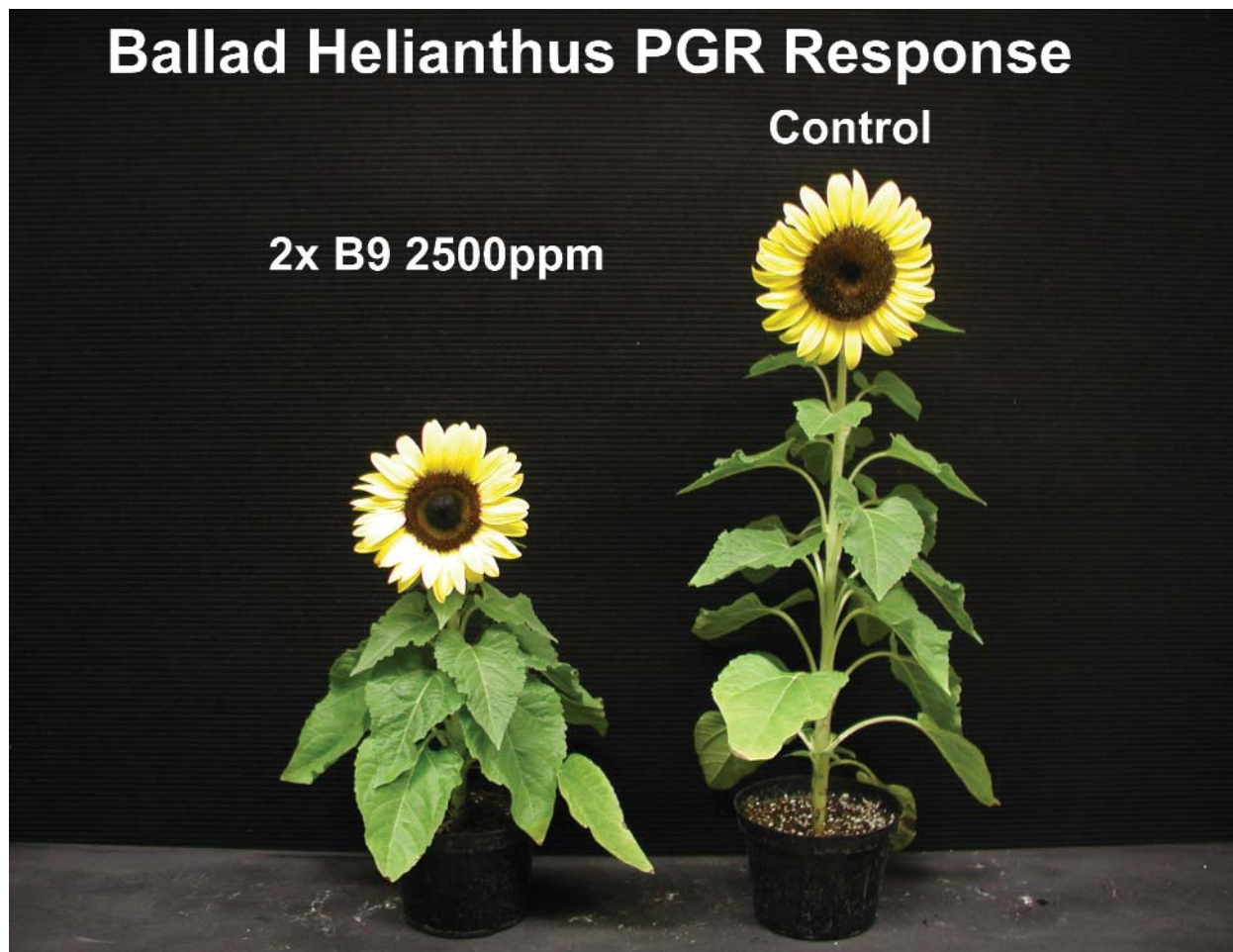
**Daylength
14-15 hours**



22" under
long day

Ballad Helianthus is a short-day plant. It flowers about 2 weeks faster under 10-hour versus 14-hour daylength. Longer daylength also leads to taller plants (see photos above). Plants grow naturally about 8" (20 cm) tall during winter season (daylength 9 to 10 hours, top picture), but 22" (56 cm) tall during summer season (daylength 14 to 15 hours, bottom picture). Plant growth regulator should be applied to control plant height when plants grow in long-day conditions.

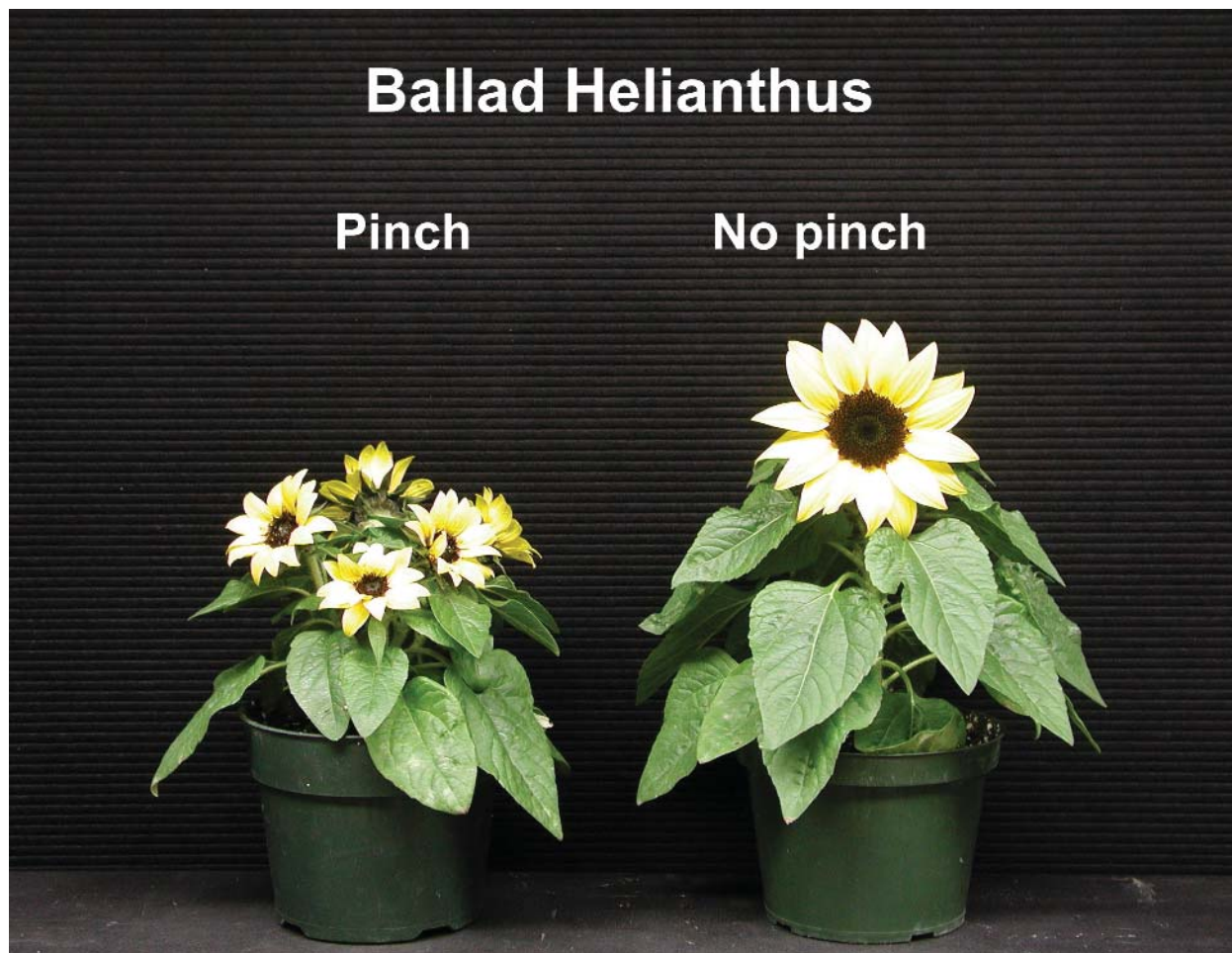
PanAmerican Seed Culture Research



Both plants were sown on the same date. Plant on left was treated with PGR, plant on right was untreated.

When Helianthus is grown under long-day conditions, PGR application is required. The plant height can be controlled by B-Nine 2500 ppm at 2 and 3 weeks after transplant (left plant). This treatment will delay flowering about 4 to 5 days.

PanAmerican Seed Culture Research



Pinching at bud initiation stage can produce a multi-flowered plant (left plant). Pinching will delay flowering.