

<b>Cultural Information for:</b>	Sunflower Sunbright Supreme	Annual
<b>Common Name:</b>	Sunflower	
<b>Botanical Name:</b>	Helianthus annuus	
<b>Seed Count:</b>	570/ounce	20/gram
<b>Optimum Germination Temperature:</b>	75°F / 24°C	
<b>Optimum Growing Temperature:</b>	55-65°F / 13-18°C	
<b>pH Optimo:</b>	5.8 – 6.2	
<b>EC – Plug:</b>	0 – 0.3 mmhos/cm (1:2) / 0 – 0.8 (SME) / 0 – 1.0 (Pour Thru)	
<b>EC – Finished:</b>	0.4 – 0.8 mmhos/cm (1:2) / 0.9 – 2.0 (SME) / 1.1 – 2.6 (Pour Thru)	

Sakata's Sunflower Sunbright Supreme offers earlier flowering, shorter and stronger flower stems (including a stronger neck), and flowers with more rounded petals. Sunbright Supreme is also highly suited for the production of dwarf-type flowers for use in bouquets.

**Site Selection:** Choose a sunny site with good drainage.

**Soil Preparation:** Sunflowers do best planted in relatively poor soil. Soil that is too rich (EC over 0.2, 0 SME) will cause the plants to grow too tall.

**Seed Sowing:** Sow seeds directly into beds and lightly cover with soil. Water the seed beds thoroughly and maintain 75°F/25°C air temperature, with a minimum soil temperature of 50°F/10°C. Seeds germinate in about 7 days. 7 to 10 days after seedlings emerge, thin out leaving only the strongest and most sturdy seedlings. A final spacing of 4 x 5 inches/ 10 x 12 cm. is ideal. Dense growing will help to reduce the amount of side branching and yield a flower size of 5 inches/12 cm.

**Temperature:** After thinning, maintain a minimum air temperature between of 50°F/11°C during the night, and a maximum of 75°F/25°C during the day.

**Fertilizer:** Sunflowers require little or no fertilizer to produce flower stems of high quality. Also, water the plants only moderately to avoid overgrowth and soft plants.

**Note:** *Excessive Nitrogen, especially in the summer, will cause plants to grow too vigorously with abnormal flower shapes.*

**Timing:** Flowering time will be about 70 days in the summer and 50 days in the winter and is related to day length and temperature. During short days, plants will flower more quickly with smaller discs on shorter stems. Under long day conditions, plants will flower later with larger discs and taller stems.

**Insects:** Aphids, lygus bugs and whiteflies are the principal pests. Spray as needed.

**Harvesting:** Cut stems when the flowers are 1/4 open with the petals perpendicular to the center disc. To ensure the longest vase life, cut the stems at the proper stage. Late harvesting will result in reduced vase life.

**Post-Harvest Care:** Stems should be cut into and held in a commercial holding solution with a biocide or acidified water. Sunflowers benefit greatly from solution with a low pH (acidic). Sunflowers are prone to water stress problems so make sure stems stay hydrated. After cutting keep out of direct sun to prolong freshness. Store at 36-41°F (2-5°C) for up to a week.

### Culture for dwarf (gerbera-sized) Sunflowers for use in bouquets

*Sunbright Supreme* is a short day response variety and is more responsive, (quicker flowering), under short day conditions than is our current Sunbright series. Flower size is controlled by plant density, temperature, soil EC and day length. Long days, low-density, moderate EC levels and warm temperatures promote large flowers. Conversely, short days, high density, low EC levels and cool temperatures promote smaller flowers. Using the following culture, one can produce smaller, (more dwarf), flowers than normal with 2 ½ - 3 foot/75-90 cm. stems.

- Irrigate the cut flower bed thoroughly before sowing and avoid watering after sowing, except at the point of wilt.
- Spread a 4 x 4 inch/10 x 10 cm. netting on the cut flower bed.
- Use a high-density production by thinning to leave 3 seedlings per 4 inch/10 cm. square for outdoor production or 2 seedlings per 4 inch/10 cm. square for indoor production.
- After germination, apply short days, (March to September in the Northern Hemisphere and September to March in the Southern Hemisphere), for 15 days (dark condition 5 PM – 8 PM).

The Basic concept is to maintain the plants in a hungry condition with less water and fertilizer to make them bloom faster under short day conditions. Harvest twice a day, (morning and late afternoon), when the buds show color. Please note that *Sunbright Supreme* will fit this culture better than our original Sunbright variety.

Due to a stronger stem, *Sunbright Supreme* features flowers that face more upright. The dwarf Sunflower culture is very attractive and combines nicely with Sakata's micro Aster *Serenade Series*.

*"All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on North America conditions and Sakata cannot be held responsible for any crop damage related to the information given herein. Application of recommended growth regulators and chemicals are subject to local and state regulations. Always follow manufacturer's label instructions."*