

Helianthus annuus

Crop Time Spring: 8 - 10 weeks

Height: 13 " / 33 cm Exposure: Sun Seed Form: Raw Seed

Best Uses: Bedding, Pot Plant

## **Culture** guide

**Usage:** Plants for bedding, attractive pot plants and container plants for patio.

Sow time: March-End July, sowing in intervals

Sowing method: 1-2 seeds per plug, can be sown directly into final pot

**Germination:** 5 days at 65-75 °F (18-24 °C). Stage II 70 °F (21 °C). Supplemental lighting during germination and plug production to control seedling stretch is beneficial to overall crop quality. For Stage III & IV reduce temperatures to 62 °F (17 °C) and begin feeding at 100-150 ppm nitrogen.

**Growing on:** Direct sow seed or transplant at two true leaf stage. Continue feeding at 100 ppm nitrogen weekly. Maintain temperatures above 62 °F (17 °C) for improved branching and overall quality. Fertilize weekly at 200-250 ppm nitrogen. Avoid excessive phosphorus.

**Media:** Use a well-drained, growing substrate with 15-30 % clay, 1-3 kg/m³ complete balanced fertilizer, 0-2 kg/m³ slow-release fertilizer (3-6 months), iron-chelate, micronutrients.

**pH:** 5.5-6.2.

**Temperature:** Grow at 15-18 °C. Cultivate flowering plants not below 12 °C. Helianthus plants do not tolerate frost.

**Fertilization:** High fertilization levels are required. Fertilize the crop weekly with 200-250 ppm nitrogen, using a potassium balanced fertilizer (N:  $K_2O$ -ratio: 1:1,5). Avoid high ammonium and high nitrogen levels. Prevent magnesium deficiency by applying magnesium sulphate (0,05 %) 1-2 times and in case of iron deficiency apply iron-chelate for 1-2 times.

Stage I Starts with the radicle breaking through the testa. The roots are touching the medium. Ends with fully developed cotyledons. Stage II Starts from fully developed cotyledons. Ends with the fully developed true leaf or true leaf pair.

Stage III Starts from the fully developed true leaf or true leaf pair and ends with 80% of the young plants being marketable.

Stage IV All young plants are ready for sale and in the process of being hardened off. This stage lasts about 7 days.

The cultural recommendations are based on results from trials conducted under Central European conditions. Different conditions in other parts of the world may lead to deviations in results achieved.