GrowerFacts

PanAmericanSeed™

Aquilegia Swan

(*Aquilegia x hybrida*)

Germination

- Sow seeds into a 392-tray
- Cover seeds with vermiculite
- Germinate in 392-tray at 70° to 75°F (21° to 24°C)
- Seed germinates in 10 to 14 days
- Grow on at 65° to 68°F (18° to 20°C)
- Fertilize weekly with 100 ppm N in a complete fertilizer
- Spray a tank mix of B-Nine 2500 ppm and A-Rest 10ppm at stage 3 (about 4-5 weeks after sowing)
- Supplemental light will shorten the crop time
- Total time in the 392-tray is 6 to 8 weeks

Plug Production

Transplant 392-plugs into a 50-tray or 804 flat. Plugs may also be transplanted directly into the final container if space is not limited.

- Grow on at 62° to 68°F (17° to 20°C)
- Vegetative build up can be done under short or long days. However, long days increase petiole length and slightly delay flowering time.
- Fertilize weekly with 200 ppm N of Nitrate nitrogen (<30% NH4) in a complete fertilizer.
- Maintain pH at 5.8 to 6.4 with EC levels of 1.0 to 2.0 (1:2 extract).
- Spray B-Nine/A-Rest tank mix at 2,500 ppm/10ppm at 4 weeks after transplant.
- Vegetative build up is essential for rapid, uniform flowering! Plants must develop 12 to 15 leaves before they are mature enough to respond to conditions for floral initiation.
- Total time for vegetative build up is 8 to 10 weeks. If a 50-tray or 804 flat was used for this step, transplant to final container prior to cool treatment.

Cool Treatment

- Start cool treatment after 12-15 leaf stage.
- Cool treatment temperature can go as high as 55° F (13°C) during the night and 60°F (15°C) during the day. Therefore, this can easily be done in a cool greenhouse when outside temperatures are also cool.
- The length of time for the cool treatment is 4 to 6 weeks depending on the temperature. The warmer the temperature, the longer the cool treatment period will be. For example: 4 weeks at 41°F (5°C) and 6 weeks at 55°F (13°C).

Controlled Temperature Forcing Option

(For July to November flowering when cool greenhouse temperatures cannot be maintained)

- Sow February to May into a 392-tray.
- 8 weeks after transplanting into 50-trays or about 12 leaf stage, place the 50-tray plugs in a lighted cooler (14-hr. days) for 4 weeks at 41°F (5°C) to induce flower initiation. Water as needed.
- After 4 weeks, remove the 50-tray plugs from the cooler and transplant into final container (5.5 to 6.5-in./14 to 16-cm pots).
- Plants will begin to flower 4 to 6 weeks after transplanting into final containers.
- For flowering after October 1, Supplemental lighting light can hasten flowering and increase flower number.
- Total crop time from sowing is approximately 22 to 26 weeks.
- Note: The crop time for the 50-tray is shorter when sowing at this time of year.

Growing On to Finish

Container size

5.5 to 6.5-in./14 to 16-cm pots

Temperature

Day 60-68°F (16-20°C)
Night 55-64°F (13-18°C)

Photoperiod

After the cool treatment, they are day neutral plants. But if plants do not get enough cool days, long days (about 14 hours) will help flower stem elongation.

Fertilizers

Fertilize weekly with 200 to 250 ppm N in a complete fertilizer

Avoid ammonium-based N

Maintain pH at 5.8 to 6.4 with EC levels of 1.0 to 2.0

Growth Regulators

Tank mix spray of B-Nine at 2500ppm and A-Rest 15-25ppm can be used as needed.

Common Problems:

Diseases: Watch for powdery mildew. In order to prevent powdery mildew, maintain greenhouse relative humidity less than 60%, space plants properly, and rotationally spray fungicides labeled for powdery mildew.

PanAmerican Seed™

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