

Aquilegia Winky Double

(*Aquilegia vulgaris*)

Germination

Key Flowering Facts

- Hardy perennial.
- Vernalization: Required.
- Photoperiod: Day neutral after vernalization.
- Available as Single and/or Double series.
- Unique and attractive flower type.
- Eye-catching, long-lasting display at retail.

Media

Use a well-drained, disease-free, soilless media with a pH of 5.8 to 6.2 and an EC of 0.75 mmhos/cm).

Sowing

Sow 2 to 3 seeds per cell in 288 plug tray (depending on series single or double). Cover seed lightly with vermiculite.

Spray after sowing preventively against fungi.

Stage 1 – Germination takes 7-12 days.

Soil temperature: 68 to 72°F (20 to 22°C)

Light: Light is optional.

Moisture: Keep soil medium moist (level 3) in Stage 1.

Humidity: Maintain 95 to 97% relative humidity (RH) until radicles emerge.

Plug Production

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Soil temperature: 68 to 72°F (20 to 22°C)

Light: Light is optional.

Moisture: Keep soil medium moist (level 3) in Stage 1.

Humidity: Maintain 95 to 97% relative humidity (RH) until radicles emerge.

Stage 2

Soil temperature: 68 to 72°F (20 to 22°C)

Light: Up to 2,500 f.c. (26,900 Lux)

Moisture: Reduce media moisture slightly (level 2-3) to allow the roots to penetrate into the media. Don't let the media dry out.

Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mmhos/cm EC) from nitrate-form fertilizers.

Stage 3

Soil temperature: 65 to 68°F (18 to 20°C)

Light: Up to 2,500 f.c. (26,900 Lux)

Moisture: Allow media to dry further until the surface becomes light brown (level 2) before watering.

Fertilizer: Apply fertilizer at rate 2 (100 to 175 ppm N/0.7-1.2 mmhos/cm EC) from nitrate-form fertilizers.

Growth regulators: Not necessary.

Stage 4

Soil temperature: 65 to 68°F (18 to 20°C)

Light: Up to 5,000 f.c. (53,800 Lux) if temperature can be controlled.

Moisture: Same as Stage 3.

Fertilizer: Same as Stage 3.

Growing On to Finish

Container Size

5 in. (13 cm) or square/quart pots: 1 plug per pot

1 gallon (18 cm): 1-3 plugs per pot

1½ gallon (23 cm): 3 plugs per pot

Media

Use a well-drained, disease-free, soilless media with a pH of 5.8 to 6.4 and an EC of 1.2-1.5 mmhos/cm).

Vernalization: Required; minimum 8 to 10 weeks at 41°F/5°C. Plants should have at least 10 to 12 true leaves before vernalization starts.

Temperature

Cool growing towards the winter period to get a full and bushy plant development and a good settled root-system is important. Don't allow the plants to become stretched and leggy before winter.

After winter period/vernalization

Nights: 50 to 59°F (10 to 15°C)

Days: 60 to 72°F (16 to 22°C)

Light

No additional light is required, but could be beneficial for flower induction after vernalization period.

Photoperiod

Aquilegia is a day-neutral plant after vernalization. Long day of 14 hours or longer could stimulate stem elongation and slightly hasten flowering after the vernalization period.

Irrigation

Keep media medium moist (level 3). Avoid both excessive watering and drought.

During overwinter/vernalization period, maintain plants dry to medium dry as overwatering could result in plant loss from root rot.

Fertilizer

Apply fertilizer at rate 3 (175 to 225 ppm N/1.2 to 1.5 mmhos/cm EC) from Nitrate form fertilizer.

Add some extra Nitrate fertilizer early spring (EC 1.3 – 1.5 mmhos / cm) when plants start to re-grow after overwintering.

Growth Regulators

In general no PGR is needed (especially when grown under cool conditions), but if necessary B-Nine/Alar (daminozide) at 2,500-5000 ppm (3.0-6.0 gr/l 85% formulation or 4.0-8.0 gr/l 64% formulation) can be applied as needed.

Pinching

Pinching is not needed.

Spacing:

Space plants when foliage is touching.

Crop Scheduling

Sow to transplant (288 cell plug): 7 to 8 weeks

Transplant to flower: 30 to 40 weeks

Total crop time: 38 to 46 weeks

Production: Sow mid June to late July for natural flowering late April to early May of the following year.

Common Problems

Insect: Aphids, Spider Mites, Leaf Miners, White Flies

Disease: Sclerotinia, Powdery Mildew

Garden and Landscape Information

- Winky is a hardy perennial to USDA Hardiness Zone 3 to 8.
- Space plants at 10 to 12 in. (25 to 30 cm) apart in well-drained soil.

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.

