



Maché™, Magic™

RANUNCULUS ASIATICUS

Minimum Germination Rate: 80%

Seed Product Form: Pelleted, raw

FLOWERING

Time frame when plants are receptive to flower initiation: 10 – 12 leaves are present.

Flowering Type: Obligate long-day plant – long days required for initiation.

Specific Flowering Mechanism: Days greater than 13.5 hours with high irradiance (15 – 20 mols) will induce and enhance flowering. After initiation and while buds are immature, provide short day to enhance flower size and uniformity.

PLUG CULTURE

Germination: Optimum conditions for seedling development that begins the day the crop is sown until cotyledon expansion. Expect radicle emergence in 14 – 21 days. Remove plug trays from the chamber when immature cotyledons growth is observed.

Cover: Seeds may be covered with a thin layer of medium-grade vermiculite to maintain moisture levels.

Media: • pH: 5.8 – 6
• EC: 0.75 – 1

Light: Light is not required for germination. Day 15 – 29 provide 1,500 – 2,000 foot candles (15,000 – 20,000 lux or 4 – 6 mols of light).

Moisture: Saturated (5) for days 0 – 14 or until radicle emergence. On day 15, alternate between saturate (5) and moist (3); dry back must occur within 18 hours.

Humidity: 100% until radicle emergence (approximately day 14).

Dehumidify: 40% on day 15 after radicle emergence

Temperature: 50 – 55°F (10 – 13°C) for highest number of usable seedlings and young plant quality. As temperature increases to 56 – 65°F (13.5 – 18.5°C) usable seedling quality will be reduced and young plant quality will decrease. Apply at -3 to -5°F DIF or morning drop day 15 – 29.

Fertilizers: 14-4-14 or 17-5-17 at 60 – 75 ppm nitrogen to maintain an EC of 0.75 – 1.

Plug Bulking: Optimum conditions during the vegetative period, beginning at cotyledon expansion, needed for the root to reach the edge of the plug cell.

Media: • pH: 5.8 – 6
• EC: 1.25 – 1.75

Light: 2,500 – 3,000 foot candles (25,000 – 30,000 lux or 8 – 10 mols of light). Make sure plants remain under short days (less than 13 hours) to avoid premature flowering and corm development. After approximately day 52, provide 4,000 – 5,000 foot candles (40,000 – 50,000 lux or 14 – 18 mols of light).

Temperature: 52 – 55°F (11 – 13°C) with a -4 to -6°F (-2 to -3.5°C) DIF or morning drop.

Moisture: Alternate between saturate (5) and moist (3); dry back must occur within 18 hours.

Humidity: 40%

Fertilizers: 14-4-14 or 17-5-17 at 75 – 125 ppm nitrogen to maintain an EC of 1.25 – 1.75. Provide 8 – 12 ppm phosphorus.

Growth Regulators: May be necessary if optimal conditions have not been provided. B-Nine spray at 1,500 – 2,500 ppm.

GROWING ON

High quality Ranunculus is best obtained with cool night temperatures and short day conditions. Low temperatures and high light levels will result in large flowers with an intense color.

Transplant Ready: 8 – 10 weeks from sow in a '288' tray.

Finish Bulking/Flower Initiation: Optimum conditions during the vegetative period, beginning at transplant, needed for the root to reach the edge of the container AND to make the plant receptive to flower initiation.

Media: Select a porous media that drains well. This is important during the cool season when temperatures and light levels are low, and media is slow to dry.

• pH: 5.8 – 6
• EC: 1.25 – 1.75

Light: 4,500 – 5,000 foot candles (45,000 – 50,000 lux or 16 – 18 mols of light). Ranunculus initiates the highest flower count and the best growth under the natural days for spring production. Daylength extension in combination with high light will promote earlier flowering.

Temperature: 58° – 62°F (14° – 16°C) 2 – 3 weeks, until the roots have reached the edges of pots. Once established lower temperature to 50° – 55°F (10° – 13°C) OR maintain 58°F (14°C) with a -5 to -10°F (-3° to -5.5°C) DIF or morning drop. Temperatures above 68°F (20°C) may reduce vegetative growth, increase stem length and speed up flowering. High temperatures in combination with long days will stimulate corm formation or promote leaf yellowing.

Moisture: Alternate between saturate (5) and moist (3); dry back must occur within 18 hours. Avoid a wilting state to prevent leaf yellowing.

Humidity: 40%

Fertilizers: 14-4-14 or 17-5-17 at 100 – 150 ppm to maintain an EC of 1.25 – 1.75. Provide 10 – 15 ppm phosphorus.

Growth Regulators: B-Nine (daminozide) at 2,500 ppm. Apply first treatment when flower buds are visible in the crown. A second application is made when flower stems are 2" (4 – 5 cm) in length. If needed, subsequent applications can be applied until flowers begin to open.

Common Diseases: Cercospora ranunculi, Pythium Root Rot, Botrytis, Tomato Spotted Wilt Virus

Common Pests: Aphids, Whitefly, Leaf miner, Thrips, Fungus Gnats

PRODUCT USE

Pots, containers, mass plantings, gift item, garden cut flowers

GARDEN SPECIFICATIONS

Light: Partial shade
USDA Hardiness Zone: 11
AHS Heat Zone: 4 – 1

	Garden Height	Garden Width
Maché	12 – 16" (30 – 40 cm)	10 – 12" (15 – 20 cm)
Magic	6 – 8" (15 – 20 cm)	4 – 6" (10 – 15 cm)

RANUNCULUS SCHEDULING IN WEEKS

	Maché	Magic
Total crop time	21 – 24	22 – 26
'288' plug crop time	8 – 10	8 – 10
Transplant to finish crop time		
4" crop	12 – 15	14 – 16
6" crop	13 – 16	N/A

Ranunculus is traditionally sown in August/September for January/February sales. Additional crops can be sown in September/October for March/April sales.

Note: These suggestions are only guidelines and may have to be altered to meet individual grower's needs. Check all chemical labels to verify registration for use in your region.