



Hydrangea

Hydrangea macrophylla

Enormous mophead blooms in blue, pink or white — the only common plant whose colour you can shift yourself, and a living lesson in soil chemistry.

Thirst

Check it daily, it drinks more than you would think

INDIRECT LIGHT

COOL ROOM

THIRSTY

A note on the name. Your page says *Hydrangea paniculata*, which is wrong for a potted florist crop. *Paniculata* is a hardy landscape shrub whose white flowers do not respond to pH at all — so any blueing advice on that page would be nonsense, and the outdoor-planting advice for Canadian customers would be quite different.

DAY TO DAY

Light	Bright indirect light — near a window but out of hot direct sun, which scorches the leaves and fades the flowers fast.
Water	A thirsty plant; the name literally means water vessel. Keep the soil consistently moist and check daily — a potted hydrangea in bloom can wilt dramatically in a single afternoon. Water thoroughly until it drains, and always remove the foil sleeve or empty the saucer, because sitting in water rots the roots just as fast.
Food	While it is in flower it needs almost nothing — it arrives fully fed. If you keep it afterwards, balanced houseplant food at half strength every three to four weeks, in spring and summer only.
Temperature	Cool is better: 15–21°C / 60–70°F by day and cooler at night noticeably extends the display. Near 12–16°C / 54–60°F is ideal. Away from heat vents and fruit bowls.
Humidity	Average household humidity is fine. Air movement matters more, because still damp air encourages powdery mildew and grey mould on the blooms.

WHEN THE FLOWERS FINISH

Cut the spent heads back to just above a strong pair of leaves and keep it cool and bright. In most of Canada a potted florist hydrangea is best treated as a temporary gift: *H. macrophylla* is only reliably hardy in the mildest parts of the country, and even where it survives, the flower buds form on old wood and are usually lost over winter, so the plant lives but never blooms again. If you want to try, harden it off after the last frost, plant in a sheltered spot with morning sun and afternoon shade, and mulch heavily. Otherwise keep it as a container plant and overwinter it dormant in a cold but frost-free garage.

IF SOMETHING LOOKS WRONG

The whole plant flops, usually in the afternoon	It ran out of water. Water thoroughly and it normally recovers within hours; repeated wilting shortens bloom life and browns the flower edges.
Brown crispy leaf edges while the soil is wet	Root rot from the pot standing in water inside its sleeve, or too much fertilizer salt.
White or greyish powdery dusting on the leaves	Powdery mildew from crowded, still, humid air. Space it away from other plants.
Flowers turn green or muddy as they age	Normal maturation of the sepals, not a disease. Colour also drifts as the mix pH shifts with your tap water.

GROWER REFERENCE

Production and finishing figures. If you are keeping this plant on a windowsill, everything you need is on page one — this page is for the trade.

Media pH	Colour-critical, and the single most important number on this crop. BLUE cultivars: 5.0–5.5, ideally near 5.0, dropping to 4.5 if colour is insufficient. PINK/RED/WHITE: 6.0–6.2. Mechanism: sepal colour is set not by pH directly but by aluminium uptake — delphinidin-3-glucoside forms a blue complex with Al^{3+} , and aluminium is only plant-available at low pH. White cultivars cannot be shifted at all.
Media EC	SME 1.5–2.1 mS/cm; PourThru 2.3–3.2 mS/cm. Always record which method — the two scales differ by roughly 1.5× on this crop.
Substrate	Well-drained peat-based soilless mix with high water-holding capacity, limed to the target pH for the colour being produced. Lime to 6.0–6.2 for pink/red; little or no lime plus an acidifying fertilizer for blue. Avoid superphosphate and high-P charges in blue programs — phosphorus ties up aluminium and blocks blueing.
Fertilizer	175–200 ppm N constant liquid feed during bulking and forcing, reduced as sepals colour. Propagation: 100 ppm N once roots show, to 150 ppm N when well rooted. RATIO IS COLOUR-DEPENDENT — blue programs use low/zero-P high-K acidifying feeds such as 14-0-14, 13-2-13 or 15-0-30; pink/red use high-P low-K such as 15-30-15. For blue, aluminium sulfate at 8–10 lb per 100 gal every 10–14 days, up to 4 drenches. Pre-moisten the rootball before every aluminium drench to avoid root burn.
Light	Propagation (first 2 weeks) 1,200–1,500 f.c. Finishing 4,000–6,000 f.c. DLI 4–6 initially, above 12 after rooting, and 14–16 to finish.
Temperature	Propagation 22–23°C / 72–74°F day and night. Bulking 20–21°C / 68–70°F. Finishing 22–23°C day / 16–17°C night (72–74°F / 60–62°F), after six to eight weeks of winter chill, forcing 12–14 weeks. Drop to 12°C / 54°F for the final 1–2 weeks to intensify colour and improve shelf life.
Relative humidity	Not established as a published percentage. Practice is moderate humidity with strong horizontal airflow; high humidity at finishing drives Botrytis on opening sepals and powdery mildew on foliage.
Irrigation	Alternate moisture level 2 (medium) and 4 (wet) on a 1–5 scale, avoiding severe drying. Drip or ebb-and-flood preferred so foliage and sepals stay dry. Water quality is critical — high-alkalinity water steadily drives media pH up and will turn a blue crop muddy pink, so acid injection is usually required for blue programs.

DISORDERS & PESTS

Aphids, two-spotted spider mites, thrips. Botrytis (especially on opening sepals), powdery mildew, Hydrangea Ringspot Virus, TSWV. Iron and manganese deficiency chlorosis when pH drifts above target in blue programs; aluminium or manganese toxicity and root burn below ~pH 4.5 or from drenching dry rootballs; muddy or split colour from mid-crop pH drift; leaf margin necrosis from high salts; bud blast and uneven flowering from inadequate or interrupted cold treatment.

GROWN BY

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A bigleaf hydrangea is the only common garden plant whose flower colour you can deliberately change after planting, because the pigment turns blue only when it can grab aluminium out of acidic soil — which is why the same cultivar blooms blue in one garden and pink next door.

Sources

- Syngenta Flowers, vegetative hydrangea culture guide
- University of Missouri IPM; Clemson HGIC; NC State Extension