

Researchers from the Floriculture Program at Michigan State University (MSU) share research-based information on some of the top perennial performers from the past few years.

# Production Tips For Top Performers

## Nepeta x faassenii

# 'Walker's Low'

Tips for producing and taming this great garden plant in containers.



by SONALI PADHYE and CATHY WHITMAN

**N**EPETA *xfaassenii* 'Walker's Low,' selected as Perennial Plant of the Year in 2007, is an excellent garden plant adaptable to almost any sunny garden in USDA cold hardiness Zones 3 to 8. 'Walker's Low' creates a backdrop of silvery-green foliage and dainty lavender-blue flowers (Figure 1) and combines well with other herbaceous perennials. Like other catmints, 'Walker's Low' also contains nepetalactone, and its aromatic foliage makes catmint a good choice for herb gardens. 'Walker's Low' also incorporates well in large combination containers and is suitable for alpine and arid gardens because it tolerates drought after establishment in the landscape. Plants continue to bloom all summer long, provided that spent flowers are removed. The charming blue flowers of 'Walker's Low' attract butterflies and bees while the plants are rabbit and deer resistant.

*Nepeta xfaassenii*, commonly known as catmint or catnip, is a hybrid of *N. nepetella* and *N. racemosa* and is a member of the mint family (Lamiaceae). 'Walker's Low' was discovered in Ireland and introduced in Europe in 1988. Contrary to its name, 'Walker's Low' is one of the taller catmint cultivars; full-grown plants may rise up to 2 to 3 feet in height. 'Walker's Low' also is very vigorous; once planted, single plants quickly grow 2 to 3 feet wide.

### Production Tips

*Nepeta* 'Walker's Low' does not produce viable seeds and is commercially propagated by shoot-tip cuttings or divisions. In our studies, shoot-tip cuttings dipped in rooting hormone rooted in five to seven days under mist in a propagation facility set at 72°F.



**Figure 1. *Nepeta* 'Walker's Low' creates a beautiful backdrop of silvery-green foliage and dainty lavender-blue flowers.**

Commercial growers can purchase plugs from propagators for finishing. 'Walker's Low' is typically grown in quart-size or larger containers and, if pinched at planting to promote lateral branching, a single plug can adequately

fill the containers at flowering.

In a greenhouse trial conducted at Michigan State University (MSU), 72-cell plugs were received from a commercial grower and grown in a greenhouse set at 68°F under a 16-hour photoperiod provided by high-pressure sodium lamps. Plugs were pinched about 20 days after receipt and further grown for 10 more days in the plug trays prior to transplant. Plugs were transplanted into 5.5-inch pots containing peat-based media and forced under the same environmental conditions as the plugs. In this study, plants flowered in an average of three to four weeks from transplant and filled the containers nicely (Figure 2). This study was conducted in the summer, and actual greenhouse temperatures may have been several degrees warmer than the setpoint of 68°F. In a winter trial conducted at MSU, when grown from 32-cell plugs, plants pinched at transplant flowered in three to four weeks under supplemental light and four to five weeks under low light under a 16-hour photoperiod and a setpoint of 68°F.

If using a larger-sized container, bulking in the final container under a short-day photoperiod, planting multiple plugs per container, planting larger-sized plugs or a combination of these strategies may ensure that plants are sufficiently large at flowering.

A vernalization treatment neither synchronizes nor hastens flowering of this perennial. 'Walker's Low' is a long-day plant and in one of our stud-

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ies, no plants flowered under a short-day photoperiod of nine hours. In the same trial, all plants flowered under a long-day photoperiod of 16 hours provided as a day-extension. Because 'Walker's Low' is a full-sun plant, supplemental light is beneficial during forcing. In our study, when a 16-hour photoperiod was provided using incandescent lamps (low light treatment),



**Figure 2. Seventy-two-cell plugs of nepeta 'Walker's Low' received from a commercial grower were grown in plug trays for 20 days in a 68°F greenhouse under a 16-hour photoperiod. Plugs were pinched (left) and further grown for 10 days to promote lateral branching (center) and then transplanted into 5.5-inch containers and grown under the same environment. Plants flowered in three to four weeks and adequately filled the containers at flowering (right). No plant growth retardants were applied to the finished plant.**

plants were leggy and of poor quality at flowering. In contrast, under a 16-hour photoperiod provided by high-pressure sodium lamps (high light treatment), plants were more compact, well-branched, had sturdier stems and the overall quality was superior to that of plants grown under low light.

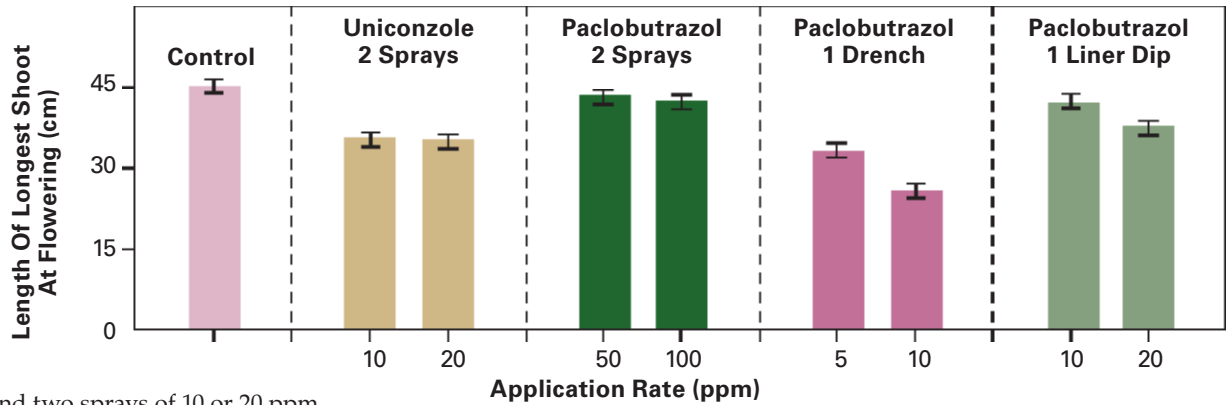
### Plant Height Control Tips

As *Nepeta* 'Walker's Low' is very vigorous, height control using plant growth retardants (PGRs) may be necessary during container production. PGRs can be applied as a foliar spray, drench or liner dip. We conducted a greenhouse trial to evaluate the efficacy of paclobutrazol sprays, drenches and liner dips and uniconazole sprays on the height of *Nepeta* 'Walker's Low.' Starting material for the PGR study was 72-cell plugs that were pinched 10 days prior to transplant (Figure 2B). Ten or 20 ppm paclobutrazol (Piccolo, Fine Americas) liner dips were applied one day before transplant by dipping plugs with slightly moist media in the PGR solution for 15 to 20 seconds. Paclobutrazol drenches of 4 ounces per 5.5-inch pot were applied at a 5 or 10 ppm rate one week after transplant when the media was moist. Two foliar sprays of 50 or 100 ppm paclobutrazol or 10 or 20 ppm uniconazole (Concise, Fine Americas) were applied one and three weeks after transplant. The foliar sprays were applied at the rate of 2 quarts/100ft<sup>2</sup> without an addition of a surfactant. An additional set of plants was maintained to serve as a non-treated control. Data collection included flowering time and height of the longest branch at flowering.

The PGRs provided varying degrees of height suppression compared with the non-treated control plants (Figure 3). A paclobutrazol drench of 5 or 10

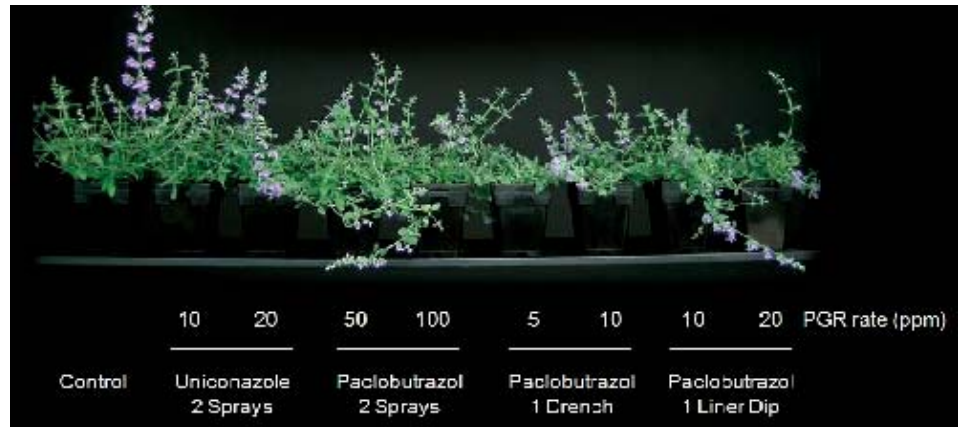
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ppm and two sprays of 10 or 20 ppm uniconazole provided sufficient height control for seven weeks in the greenhouse. However, some plants drenched with 10 ppm paclobutrazol subsequently had necrotic basal leaves. No phytotoxicity was observed following 5 ppm paclobutrazol drenches or any other PGR treatments. At the rates used, the efficacy of paclobutrazol liner dips for height suppression was transient and lasted for less than three weeks after the treatment. When using liner dips, higher application rates or subsequent foliar PGR sprays may provide adequate height control. Paclobutrazol foliar sprays of 50 or 100 ppm did not provide sufficient height control, indicating that higher rates, additional applications or both may be needed.

**Figure 3.** The influence of uniconazole sprays or paclobutrazol sprays, drenches or liner dips on the plant height of *Nepeta* 'Walker's Low.' The liner dip was applied one day before transplant, drench was applied one week after transplant and foliar sprays were applied one and three weeks after transplant. Photograph was taken 18 days after transplant. In the graph, bars represent means of 10 plants per treatment and error bars represent standard errors of 10 means.



PGR sprays at an earlier developmental stage may also be beneficial. Application of PGRs did not influence the flowering time or inflorescence number at flowering. Growers should conduct their own trials to test the effective PGR rates appropriate for their production systems. **GG**

**About the authors:** Cathy Whitman is a research technician at MSU and Sonali Padhye is an assistant professor at the University of Florida (UF). The authors thank private greenhouse growers and horticulture suppliers that have funded their herbaceous perennial research. A special thanks to Fine Americas for financially supporting the PGR trial of *Nepeta* 'Walker's Low.' For more information, please contact Sonali Padhye ([padhye@ufl.edu](mailto:padhye@ufl.edu)) or Cathy Whitman ([whitman@msu.edu](mailto:whitman@msu.edu)). To become a floriculture research partner with MSU and UF, please contact Erik Runkle ([runkle@msu.edu](mailto:runkle@msu.edu)) and Sonali Padhye, respectively.