

perennial solutions



By Paul Pilon

Echinacea purpurea 'Little Giant'

This dwarf coneflower is perfect for 1-gal. production across a wide portion of the country.

Echinacea purpurea 'Little Giant' is a dwarf coneflower with many desirable attributes suitable for both container production and landscape uses. Its distinguishing characteristics include a compact growth habit, reaching only 12-16 inches tall; dark leaf coloration; and sturdy stems bearing large 5-inch fragrant flowers with ruffled, overlapping, red-purple petals with dark orange cones.

'Little Giant', like other echinacea varieties, prefers full sun,

although in the South it performs best when some shade is provided. The genus name echinacea is derived from the word 'echinos' which means hedgehog, referring to the bristly cone in the center of the flower. Echinacea performs well across a wide portion of the United States, throughout USDA Hardiness Zones 4-9 and AHS Heat Zones 9-1. This American native is used as an aromatic border plant to attract hummingbirds and butterflies into the gardens. Echinacea is widely used as an herbal medicine to stimulate the immune system and fight off various viral and bacterial infections.

PROPAGATION

Echinacea 'Little Giant' is vegetatively propagated by means of tissue culture. Tissue culture has allowed this and many other new perennial varieties to reach the market in a relatively short period of time. Since a plant patent is being sought (PPAF), unlicensed propagation of this cultivar is prohibited. Most growers will purchase 'Little Giant' as 72-cell or larger-sized plugs from licensed propagators.

PRODUCTION

Echinacea performs best when grown in a moist, well-drained medium with a slightly acidic pH of 5.8-6.2. It is a moderate feeder and performs best when either a constant liquid fertilization pro-

gram is used, with feeding at rates of 75-150 ppm nitrate, or a controlled-release fertilizer is incorporated at a rate equivalent to 1-1.25 lbs. of nitrogen per yard of growing medium. 'Little Giant' does not tolerate wet feet. When moist or wet conditions occur plants are very susceptible to root rots. Water thoroughly as needed, allowing the soil to dry between waterings.

Generally, 'Little Giant' is relatively insect free. Aphids and whiteflies occasionally will become problematic. These pests can be controlled after they are detected or prevented using a proactive strategy. A preventative application of systemic products such as Flagship 25WG (Syngenta Professional Products), Marathon II (OHP) or Tristar 70 WSP (Cleary Chemical) will generally provide pest-free plants for up to one month following the application. Other insect pests commonly observed feeding on echinacea include caterpillars, grasshoppers, Japanese beetles, leafhoppers, mealybugs, slugs, spittlebugs and thrips.

Plant diseases may be observed when environmental conditions are favorable for their development. These diseases include Botrytis, downy mildew, fungal leaf spots, Fusarium, powdery mildew and root rots. To control the foliar diseases, it is best to manage the environment by pro-



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viding proper plant spacing, adequate air movement, low humidity and if desired, a preventative spray program using the appropriate chemicals. The onset of root rot diseases can often be prevented by avoiding overly moist or wet conditions.

With its dwarf growing habit, controlling the plant height is not usually necessary. Providing adequate spacing between the plants will reduce plant stretch caused by competition.

FORCING

To improve marketability 'Little Giant' can be forced to bloom throughout the year. Forcing coneflowers into flower out of season involves following a few key guidelines. Although I have not seen any research on this particular echinacea cultivar, I feel it is safe to make a few assumptions based on research conducted by Michigan State University on other cultivars of *Echinacea purpurea*.

Echinacea purpurea cultivars do not require a cold treatment for flowering. However, they are considered cold beneficial plants, as flowering will occur 2-3 weeks earlier following a cold period. It is recommended to vernalize small containers of echinacea for a minimum of 10 weeks at 41° F. Overwatering during the cold treatment could result in root rots and possibly plant losses.

Echinacea purpurea cultivars are considered intermediate day plants, requiring between 12 and 16 hours of light for the best flowering. Light durations of greater or less than 12-16 hours will cause them to flower poorly or

not at all. It is recommended to provide 14-hour photoperiods or night interruption lighting when the natural photoperiod is less than 14 hours. During naturally short days, using high-pressure sodium lights to deliver a 4-hour

night interruption between 10 p.m. and 2 a.m. is effective for promoting flowering.

The time to bloom after vernalization is a function of temperature. *Echinacea purpurea* grown at 68° F will take 14-16 weeks to



► reach flowering, while plants grown at 60° F will flower in approximately 18 weeks. The flower quality and uniformity of flowering is greatly reduced at high temperatures (greater than 76° F). To obtain the best plant

quality, I would recommend producing 'Little Giant' at 65-68° F.


With its dwarf habit, 'Little Giant' is well suited for growers producing 1-gal. containers. To obtain the highest quality finished containers, growers should con-

sider obtaining rooted liners during the late summer of the year prior to the intended date of sale. Established containers should be over-wintered in a protected area prior to spring forcing. Planting liners of echinacea in this man-



ner will allow them to bulk up, produce more flowers per plant and bloom earlier than those planted in the spring.

AVAILABILITY

'Little Giant' is brought to the marketplace by Terra Nova Nurseries, Tigard, Ore. Plugs are available from Terra Nova Nurseries and a limited number of licensed propagators. 

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