



perennial solutions



By Paul Pilon

Papaver nudicaule 'Garden Gnome'

Gardeners and retailers alike have been warming up the Iceland poppy's appeal in recent years. With its undeniable flower power, compact habit and ease of production, 'Garden Gnome' is quickly gaining popularity.

he Iceland poppy is an attractive, delicate, coolseason perennial produced by growers for spring programs. It has been largely underused in the past and is becoming increasingly popular in recent years. The Iceland poppy is a short-lived perennial in the North, but it is grown as an annual in the South because it does not tolerate the extreme summer heat of southern locations. Despite its seemingly fragile nature, many landscapers use *Papaver nudicaule*

in fall plantings, which deliver spectacular displays of color during the early spring. Iceland poppies are relatively easy to produce and are commonly marketed alongside bedding plants.

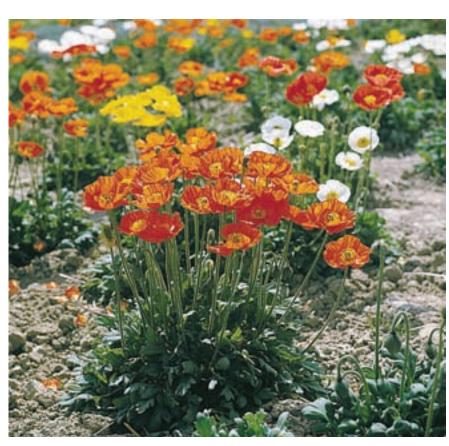
'Garden Gnome' is a popular cultivar of Iceland poppies that is widely grown in greenhouses for early sales. It produces compact, low-growing rosettes of graygreen-lobed foliage reaching 4-6 inches tall. It produces attractive 2-inch flowers in the early spring atop strong, upright, 9- to 12-inch hairy stems and continues to bloom into the early summer. 'Garden Gnome' has great flower power: It produces masses of blooms of various colors such as orange, scarlet, yellow and white (each color is available individually). Although the most impressive display of color occurs in the early spring, it reblooms well into the summer in most locations.

Papaver nudicaule belongs to the Papaveraceae family, which is native to sub-Arctic regions of Asia and North America. 'Garden Gnome' is commonly used in containers, patio pots and in small mass or border plantings, but Iceland poppies can also be used as cut flowers. Papaver nudicaule performs well across much of USDA Hardiness Zones 2 to 7 and AHS Heat Zones 9 to 2. As mentioned above, they are cool-season perennials and perform best when grown under these conditions; they tend to struggle and may perish under extreme heat or during extended dry periods.

Propagation

'Garden Gnome' is easily propagated from seed, which is available from Benary Seed. Iceland poppies are commonly sown in a variety of container sizes from small 288-cell plug trays to directly sowing them in 3-inch or larger containers, multiple sowing in both instances. Light is required for germination; do not cover the seed with germination mix or vermiculite after sowing. Moisten the seed flats and move them into a warm environment, where the temperatures can be maintained at 62-68° F for germination. Keep the media slightly moist but not wet during germination. It is best to geminate them in a chamber with uniform moisture levels and temperatures. Using a germination chamber will also increase both the germination rate and percent germination.

The seeds should be germinated within five to 10 days of sowing. Once germinated, they can be grown at temperatures of 60-64° F. Following germination, reduce the moisture levels somewhat, allowing the growing medium to dry out slightly before watering to help promote rooting. Fertilizers are usually applied once the true leaves are present, applying 100-ppm nitrogen every third irrigation or 50 ppm with every irrigation, using a balanced, watersoluble source. When the plugs are grown at 64° F, they are usually ready for transplanting in eight to 10 weeks. ▶



'Garden Gnome' produces masses of blooms of many eye-catching hues. (Photo: Benary)

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Culture Connection

Production

'Garden Gnome' is often produced in 1-gallon or smaller-sized containers. Growers commonly use a single plug transplanted into small container sizes and two plugs when larger sizes are being grown. After transplanting, the growing

medium of the pot should be even with the top of the plug. Iceland poppies perform best when grown in a moist, well-drained medium with a slightly acidic pH: 5.8-6.4. They require an average amount of irrigation and do not tolerate really wet or overly dry conditions. Keep

them moist, but not consistently wet. When irrigation is necessary, I recommend watering thoroughly then allowing the soil to dry slightly between waterings.

They are light to moderate feeders; providing moderate to high fertility levels can cause them



This cultivar boasts attractive 2-inch flowers atop hairy stems. (Photo: C. Raker & Sons)

to appear lush and leafy and may delay flowering. Growers commonly deliver nutrients using either a constant liquid fertilization program, feeding at rates of 75- to 100-ppm nitrates, or a controlledrelease fertilizer incorporated at a rate equivalent to 34 to 1 pound of nitrogen per yard of growing medium. In the spring, it is beneficial to fertilize with water-soluble fertilizers containing potassium that provides a 1:1 nitrogen to potassium ratio (i.e., as delivered with 15-0-15 or 17-2-17 formulations). Poppies are also prone to both magnesium and iron deficiencies, both of which appear as interveinal chlorosis. To overcome these deficiencies, it may be necessary to drench with magnesium sulfate (Epsom salt) or iron chelate.

With their compact growth habit, it is usually not necessary to control the plant height. Papaver growth can often be controlled by providing adequate spacing between the plants. It may be necessary, although not common, to use chemical plant growth regulators to control the growth of Iceland poppies. In the northern parts of the country, I recommend applying paclobutrazol (Bonzi, Paczol or Piccolo) or the tank mix of daminozide (B-Nine or Dazide) at 2,000 ppm plus uniconazole (Concise or Sumagic) at 3 ppm. Applying one to two applications seven days apart should provide adequate height control.

Insects and Diseases

Aphids, leafhoppers, leafminers, spider mites and thrips commonly feed on papaver. Of these insects, aphids are the most problematic. Preventive control measures are not needed; the presence of aphids (and other pests) can be detected through routine scouting, and, if necessary, control measures can be implemented.



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There are a number of disease organisms known to attack poppies, including anthracnose, bacterial blights, downy mildew, fungal leaf spots, root rots (Pythium and Rhizoctonia) and Verticillium. Similar to controlling insects, these diseases are often not problematic for growers. Early signs of these diseases can be detected with routine crop monitoring. To prevent the occurrence of these diseases, it is best to manage the environment by providing the proper plant spacing and adequate air movement, controlling the humidity, monitoring the salt levels of the growing mix and providing proper irrigation practices.

Forcing

Papaver 'Garden Gnome' is easy to force into bloom and is most commonly produced for early spring sales. They will flower the first year from seed, but produce more flowers when they have been overwintered. 'Garden Gnome' does not have a cold requirement, but cold is beneficial and will reduce the time to flower slightly, improve the uniformity of bloom and increase the number of flowers produced. Since they bloom so readily in the spring, it is beneficial to transplant poppies into the final container during the early fall and allow them to root and bulk up prior to the cold treatment. Iceland poppies are considered dayneutral plants but flower best when grown under high light levels in the early spring. This is accomplished by providing supplemental lighting, not photoperiodic lighting.

The time to produce flowering poppies after vernalization is a function temperature. 'Garden Gnome' grown at 60° F will take approximately eight weeks to reach flowering, while plants grown at 56° F will flower in nine weeks. Producing them at cooler temperatures increases the time to flower but will improve the overall quality characteristics of the plant, such as the color intensity of the foliage and flowers. To obtain full, flowering plants for spring sales, it is beneficial to plant them during the late summer of the previous season. I recommend transplanting plugs into the desired container during late August to early September, bulking them up before winter, over-wintering them and forcing them to bloom in the early spring.

Availability

Papaver nudicaule 'Garden Gnome'

is available to the industry as seeds, plugs or finished containers. The seed is supplied by Benary Seed (www.benary.com) and is available through many seed distributors. Plugs can be acquired from C. Raker & Sons, Inc. (www.raker. com), Pacific Plug & Liner (www.

ppandl.net) and several reputable plant brokers. GPN

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