CULTURE CONNECTION

PERENNIAL SOLUTIONS



By Paul Pilon

Alcea Spotlight Series

WHILE MOST HOLLYHOCK INTRODUCTIONS HAVE BEEN BIENNIALS AND ANNUALS, ALCEA SPOTLIGHT IS A TRUE PERENNIAL.



any people recognize and associate hollyhocks with their grandmothers' garden. Although alcea may be considered an old fashioned perennial, the genetics of this genus has been enhanced over the years, offering several improved attributes in the landscape. Breeders at Jelitto Perennial Seeds have been working diligently for over 18 years to develop alcea cultivars that are stable, consistent and easy to grow.

In 2010, Jelitto Perennial Seeds introduced the alcea Spotlight series. The Spotlight series consists of four cultivars of stable, straight-colored, singleflowering hollyhocks. The cultivars in this series include Blacknight (deep black-purple), Mars Magic (bright red), Polarstar (white with a yellow eye), and Sunshine (bright yellow). In the past, most *Alcea rosea* cultivars have been biennials, while in recent years many hollyhock introductions have been annuals; however, the alcea Spotlight series are truly perennials.

When the seeds are started very early, it is often possible to obtain flowering plants during the first growing season. However, flowering occurs best after the plants have been overwintered. The Spotlight series cultivars typically develop mounded foliage during the first growing season and develop tall flower spikes in subsequent years. In the landscape, the flowers often reach five to six feet tall.

Alcea are very cold hardy and can be grown in sunny locations throughout USDA Hardiness Zones 3 to 9. With the height of their flower stems, hollyhocks are commonly used as a backdrop in perennial beds (staking may be necessary in windy locations) or in mass plantings. Hollyhocks attract butterflies and hummingbirds into the landscape and are commonly used in cut or dried flower arrangements.

Propagation

Alcea Spotlight series are propagated by seed. Due to their large leaf size and quick growing habit, propagators commonly direct sow seeds into large cell sizes (105-cell or larger), sowing two to three seeds per cell. After sowing, cover the seeds with germination mix or medium grade vermiculite. The seed flats should be moistened and moved to a warm environment, where the temperatures can be maintained at 65 to 72° F for germination. If available, place the plug trays into a germination chamber to maintain uniform moisture levels and temperatures during germination.

The seeds germinate six to eight days after sowing. Following germination, maintain growing temperatures of 63 to 68° F. After germination, reduce the moisture levels somewhat, keeping the media surface wet to the touch, but not saturated. As the plugs become more developed, allow the growing media to dry slightly between irrigations (media changes from dark black to medium brown). Fertilizers can be applied once the true leaves are present, applying 125-ppm nitrogen every third irrigation or 50 to 75 ppm with every irrigation, using a balanced water soluble source. When the plugs are grown at these temperatures, they are usually ready for transplanting in five to six weeks.

Production

Alcea are well suited for production in 1-gallon or larger sized containers. When growing 1-gallon sized pots, generally one plug per container is planted. For larger

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container sizes, such as 2-gallon containers, planting multiple plug cells per pot is recommended. Hollyhock performs best when they are grown in a moist, well-drained medium with good holding water capacity. The plugs should be planted so the original soil line of the plug is even with or just below the surface of the growing medium of the new container.

Hollyhock requires moderate amounts of nutrition. The pH of the media should be maintained between 5.8 and 6.2 during production. Growers

using water-soluble fertilizers either feed with a constant liquid fertilization program using rates of 75- to 100-ppm nitrogen with every irrigation or apply 150 to 200 ppm of nitrogen as needed. Controlled-release fertilizers can also be used to deliver nutrients by incorporating them into the growing medium prior to planting at a rate equivalent to 1.0 to 1.25 pounds of elemental nitrogen per yard of growing mix or topdressing using the medium rate listed on the product's label.

They have an average irrigation requirement. When irrigation is necessary, water them thoroughly then allow the soil to dry slightly between irrigations. Once established and growing rapidly, alcea require more frequent irrigations.

The Spotlight series are taller than most perennials when they are produced in containers and marketed in bloom. For this reason, many growers chose to sell them before they flower or just as the flower stem begins to elongate. Some of the early elongation can be reduced by growing the plants at an adequate crop spacing and by avoiding the application of excess nutrients. During the rapid elongation that occurs as the plants approach flowering, it is helpful to apply plant growth regulators. Foliar applications of 15-ppm paclobutrazol (Bonzi, Paczol or Piccolo) or 2.5-ppm uniconazole (Concise or Sumagic) are effective at



controlling plant height when they are applied early in the crop. To control plant height after significant elongation as occurred, it is more effective to apply 3 to 6 ppm drench applications of paclobutrazol.

Insects and Diseases

Several insect pests including aphids, Japanese beetles, leafhoppers, slugs, spider mites, Western flower thrips and whitefly commonly feed on alcea. Of these pests, aphids, Japanese beetles and Western flower thrips occur the most frequently. The most common disease observed on alcea is rust; other diseases that rarely occur, but may arise on occasion, are anthracnose, fungal leaf spots and Pythium root rot. All of these pests and diseases can be detected with routine crop monitoring; control strategies may not be necessary unless the scouting activities indicate actions should be taken.

Forcing

Alcea Spotlight series is typically marketed for early to mid summer sales; however, they can easily be scheduled and grown to produce plants in bloom throughout the growing season. As mentioned previously, some flowering may occur during the first growing season, but the most consistent flowering occurs after the plants have received a cold treatment. Vernalization can be delivered to plants being grown in the final container sizes or as large plugs.

Alcea has an obligate long day requirement for flowering. They will not flower when grown under short day lengths. If early flowering is desired, it is recommended to provide at least

14-hour photoperiods or night interruption lighting when the natural day lengths are less than 14 hours.

The amount of time to produce blooming plants after the proper photoperiod is provided is a function of temperature. From the onset of long days, it takes approximately 10 weeks to flower when they are grown at 65 to 70° F.

Availability

Jelitto Perennial Seeds (www. jelitto.com) offers JET seeds of Alcea Spotlight series. JET seeds represents an improvement in seed cleaning using Jelitto Seed Technology; through this process the seeds have been processed into pure seed which improves mechanical handling and seed sowing. Some perennials are also JET heat-treated to remove undesirable seed borne plant pathogens. Plugs are available from several reputable propagators including C. Raker & Son, Inc. (www.raker.com), Green Leaf



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Plants (www.glplants.com), and Walters Gardens, Inc. (www.waltersgardens.com).

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