

Eucomis for Specialty Cut Flower Production

Find out why breeders are working hard to introduce new and exciting eucomis varieties to the market.

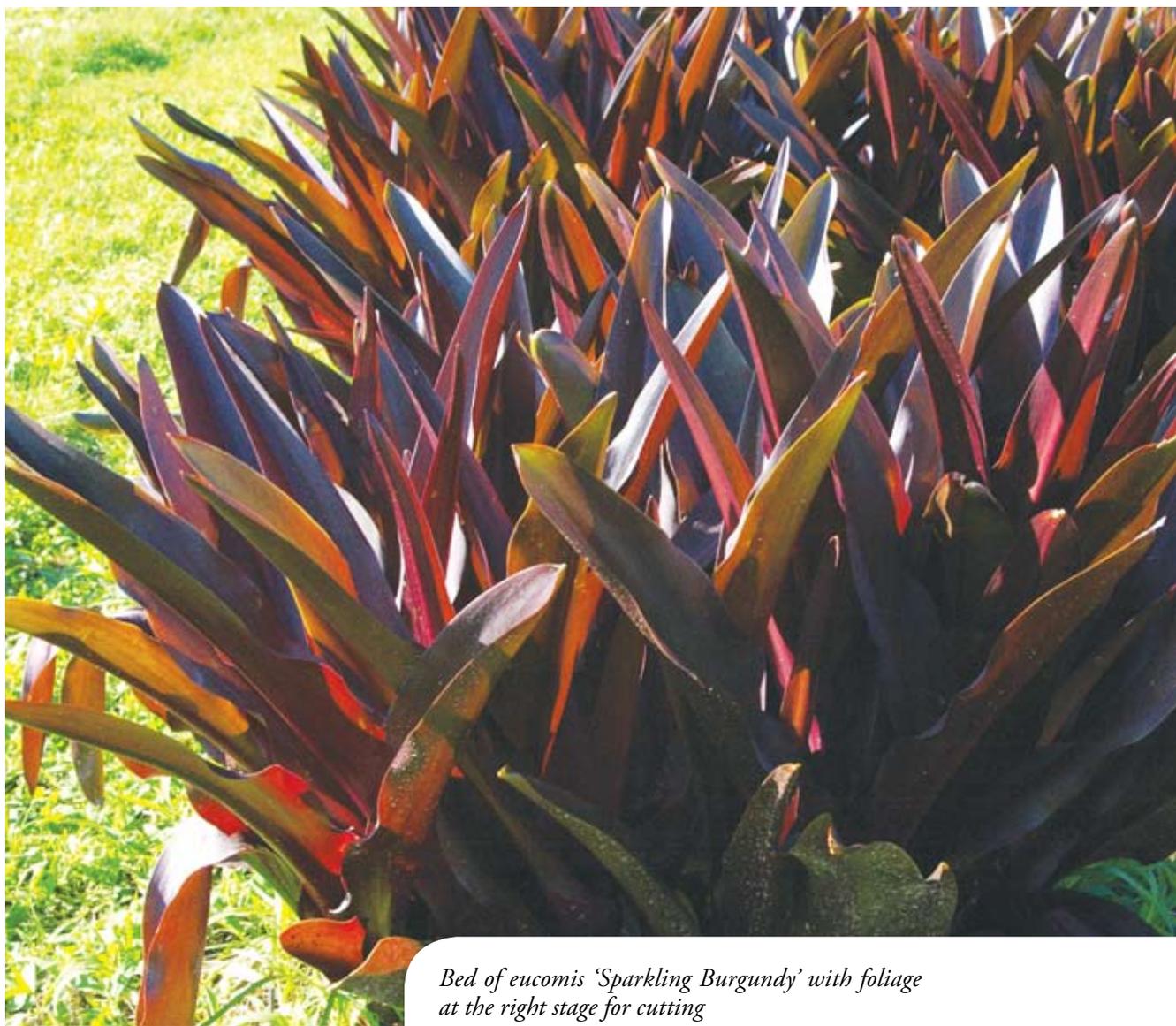
By Alicain S. Carlson and John M. Dole

Eucomis, commonly known as pineapple lily, is an easy-to-produce perennial, native to South Africa. The flower spikes are a dense column of waxy, star-shaped flowers with a tuft of leaf-like bracts on top, from which the common name is derived. From a large bulb come the long, strap-like leaves, which form a rosette around the inflorescence adding to its exotic tropical look. Flower, stem and leaf color varies from white to green, pink, purple or burgundy. Sometimes leaves and stems have spots of a darker color. The eucomis genus has about 15 species including *E. comosa*, *E. bicolor*, *E. autumnalis*, and *E. pole-evansii*. Breeders are working with eucomis, so many new and exciting cultivars are appearing on the market.

The scent of the inflorescence can vary with the species. For example, *E. comosa* has a very pleasant scent, whereas *E. bicolor* has a slightly disagreeable odor, which fades. Eucomis is pollinated by wasps and flies, which are attracted by the smell. Obviously, the sweeter smelling species would be better suited for cut flowers. A few great cultivars for cut flower production include: 'Sparkling Burgundy', 'Can Can', 'Reuben', 'Tugela Jade', 'Tugela Ruby' and 'Kilamonjaro'. The foliage of 'Sparkling Burgundy' can also be harvested.

Planting Location and Propagation

Eucomis does well field grown or in standard lily crates. Up to 12 bulbs can be planted per crate. In the field, bulbs should be spaced approximately 6 inches apart. If field space is available long term, 6-inch or greater spacing will give the plants more room to expand as plants are quite long-lived. It is



Bed of eucomis 'Sparkling Burgundy' with foliage at the right stage for cutting

not known how higher planting densities will affect flowering long-term, but occasional dividing would be beneficial to reduce crowding from offsets and increasing bulb size.

Bulbs should be planted 1 to 2 inches below the substrate surface in the spring for midsummer flowering. To overwinter in crates, remove foliage when flowering ceases and store bulbs dry at 40 to 55° F. Bulbs in the ground will

overwinter to Zone 6, possibly Zone 5 with extra mulching. *Eucomis* is easily propagated from leaf cuttings and seed. Plants propagated by these methods usually take three to five years to flower. *Eucomis* can also be started from plugs, which are available commercially. Bulbs can be divided periodically in the fall and offsets replanted. The number of flowers per bulb depends on bulb size.

Water and Fertilizer

Substrate should be kept evenly moist. Good drainage is necessary because like most bulb crops, *eucomis* is more susceptible to bulb rot if overwatered. Light to moderate fertilization (100- to 150-ppm nitrogen) is best from shoot emergence to flowering. Clear water leaches should be done to reduce salt build up if grown in crates. Typical peat-based substrate blends work fine.

Light and Temperature

Eucomis should be grown in full sun, which makes leaf and stem color more vibrant. For example, the cultivar 'Sparkling Burgundy' in full sun will have dark burgundy foliage, while those in part sun will be greener and have slightly longer stems. Flowering may also be enhanced by high light levels. The warmer the temperature the faster *eucomis* will flower. Planting bulbs in the greenhouse to be forced in January will give May/June flowering with night temperatures around 60° F. For field production, bulbs planted in May will flower in July. Bulbs can be planted in the fall for flowering next summer. Foliage will persist until frost.

Pests and Diseases

There are no major pests or diseases that commonly harm *eucomis*, but watch out for water molds, cut worms, leaf miners, mealybugs and Botrytis.

Harvest and Postharvest

Stems should be harvested when a quarter of the florets are half opened. No clippers required; just grab as close to the base of the stem as possible and give it a firm twist and pull. As long as the plants are properly hydrated, the stem



Center spike of 'Sparkling Burgundy' is ready to cut



Eucomis experiments in progress



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should detach easily from the bulb. This harvesting method prevents the leftover stem “nub” from rotting away on the plant attracting fungus, disease, etc. Stem length varies with cultivar, generally ranging from 1 to 4 feet. Taller-stemmed species, such as *E. pole-evansii*, will fall over, especially if not kept well

hydrated or harvested soon enough. Thus, netting might need to be used.

Harvested stems perform best held in tap water and have the potential to last 30 to 60 days, depending on the cultivar. Properly hydrate stems upright in a bucket of tap water in a cool place.

Eucomis does not benefit from the use of hydrating or holding solutions, including bulb specific preservatives. If stems are in a mixed arrangement with flowers that need floral preservative, the vase life could be reduced by approximately a week; however, eucomis will probably still outlast anything else in the vase! Eucomis is not sensitive to ethylene when exposed to 1 ppm for 20 hours. While cold storage for more than one week can decrease vase life, cut stems can still have a vase life of 20 days when stored either wet in buckets or dry in floral boxes for up to three weeks. This makes eucomis a good candidate for long distance shipping. Stems stored for more than a week at temperatures below 45° F may show signs of cold damage.

When removed from dry storage, be sure to re-cut and allow to properly rehydrate before using. Eucomis does not perform well in standard floral foams due to hydration issues that cause the stem to lose turgidity. If need be, a long wooden pick or skewer could be inserted into the fleshy stem to provide support for event work. As the flowers age, they become greener and colored seed pods form, which are also attractive and attribute to the long vase life.

Foliage of the burgundy-leaved cultivars can be harvested and will last even longer than the flowers. Foliage should be grown outdoors for darkest color; greenhouse-grown leaves will be more green than burgundy. The leaves are as easy to handle as the flowers, with floral preservatives not needed.

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Sources for Eucomis

Bill Moore and Co. Inc. (www.billmooreco.com); ADR Bulbs Inc. (www.adrbulbs.com); Golden State Bulb Growers (www.goldenstatebulb.com)

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