fresh focus

By Bill McKinley AIFD and Bruce Wright

Long-lived leucadendrons are more colorful and diverse than you think.

Leucadendron<u>Leucadendron</u> spp.

Availability: year round, but varies with variety

Vase life: 14 to 21 days **Bunch size:** 5 or 10 stems and grower bunches

When it comes to leucadendrons, everyone knows 'Safari Sunset'. With its rich burgundy bracts, it's by far the most popular and widely cultivated variety. But have you seen 'Jester', with creamy green and maroon stripes? How about 'Inca Gold' or 'Crème Delight'? These are only a few of the better-established alternatives to 'Safari Sunset'. New varieties and colors are being introduced each year to the cut flower market.

Breeders have a rich pool of genetic diversity to draw from. Native to South Africa, the genus Leucadendron (in the protea family) includes nearly 80 species, with many more subspecies and cultivars. Further, a single variety can change in appearance over the seasons.

"In the fall, 'Gold Strike' makes a beautiful green leucadendron," says Diana Roy of Resendiz Brothers Protea Growers LLC in Fallbrook, California. "But most people wait to cut it until the spring, when it looks like a yellow tulip. Then, if you wait a little longer, it goes back to green and in May it gets beautiful brown cones. In the past there was never enough volume to let it go through the different stages, but today there's enough 'Gold Strike' planted that we can enjoy all the seasonal variations."

Vive la différence

Another reason for leucadendrons' diversity is that the plants are dioecious, meaning that male

and female flowers appear on separate plants. These male and female flowers may have a markedly different appearance. The "petals" of leucadendrons are actually bracts (modified leaves). The true, botanical flowers are nestled among the bracts and covered with female styles or male stamens. In general, the male flowers tend to be smaller and more colorful. The stamens may change color from green to yellow to orange-red as the flowers bloom, and will continue to do so after the flower is cut, provided it was sufficiently mature at harvest. Female plants produce durable cone-shaped flowers.

A field of cultivated leucadendron is likely to be all male or all female, since the plants are propagated from cuttings, rather than from seed. Some varieties are cultivated mainly as female plants, others as males. 'Safari Sunset', for example, is typically female. In the case of this particular variety, however, you wouldn't know that it's female, since the stem is usually cut before the cone develops. At this stage the color of the maroon bracts is brighter—plus, shipping costs are lower, since the cone itself adds weight to the flower.

Most of the commercial varieties of leucadendron are cultivated as female plants—some harvested with cones, some without. Growers with large plantations, in particular, prefer the female plants, because the flowers have a longer window for harvest, according to Pam Shingaki, an agricultural research technician within the University of Hawaii system. The male flowers are more colorful, but must be picked at just the right stage—a task that's more easily accomplished by smaller growers, like those in Hawaii.

Hardy from all over

Leucadendron sold by U.S. wholesalers may have been grown in South Africa, New Zealand, Australia, Ecuador, Chile, or in Hawaii or California. "At the moment, we buy a lot from Ecuador," says Mike Balsink of Cut Flower Wholesale, an Atlanta-based supplier with a searchable online database at www.cutflower.com/search. Mike is always on the lookout for novelty, along with good deals on the old standbys like 'Safari Sunset'. He finds that growers in Ecuador and Chile are able to provide both—although, for the very latest leucadendron novelties, he looks to South Africa. Australian hybridizers are also active in producing new varieties.

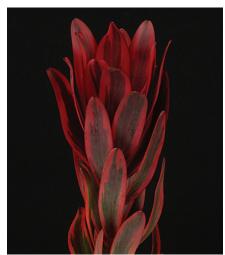
Within the U.S., the blooming season arrives a bit earlier in Hawaii than in California, giving Hawaii a seasonal edge. California's somewhat colder climate, however, can yield more intense color, a more upright habit, and longer stems

Leucadendron stems are typically between two and three feet long. Mike notes, however, that while some varieties typically produce



long single stems, others are multibranched. To achieve a straight, single stem, growers may also need to prune away the side branches, just as they do with disbudded carnations and mums. The two types of leucadendron, single-stemmed and branching, are useful in different types of designs. Florists who buy spray leucadendron can cut the lateral stems themselves and use them as basing or in low basket designs.

Thanks to their price, longevity, and versatility, leucadendrons are becoming more popular all the time. Because many leucadendrons have a look somewhere between flowers and foliage,





If 'Safari Sunset' is the only leucadendron variety you know, take a look at these beauties: at the top of the opposite page, 'Maui Sunset' (photo courtesy of Resendiz Brothers Protea Growers LLC); at left, 'Inca Gold'; above, top photo, 'Jester'; and above, lower photo, 'Creme Delight' (these photos © Cut Flower Wholesale, Inc. and Onlineflowersearch.com™). Note that the appearance of leucadendron cultivars can vary by season and whether the plant is male or female.

Flowers&



they tend to harmonize these elements in a design. "In the past, large volumes of leucadendron foliage were shipped from South Africa to Europe, where it was sold in the flower markets as 'Cape Greens' and treated as a long-lasting filler foliage," writes Diana Roy in the Resendiz Brothers newsletter. "This image has changed with the realization that many leucadendron blooms are beautiful flowers in their own right, and as a result, their value and the demand for them has increased

dramatically."

Long vase life is leucadendron's forte. The flowers are shipped dry, at near-freezing temperatures, in sea containers that take 10 to 12 days to reach Europe from Chile, reports Mike Balsink. "You can store leucadendron dry for weeks and still process it, or if you put it in water right away, it can sit in the cooler three to four weeks, sometimes more. You can even re-use it if you recover the stems after a wedding or party." Leucadendron is also useful to wedding designers as a floral material that holds up well out of water for corsages and boutonnieres.

By the same token, it's still important to buy the freshest product and not take leucadendron's hardiness for granted, Mike warns: "As a retailer that's such an important part of your business, knowing the quality and freshness of what you put into your arrangements."

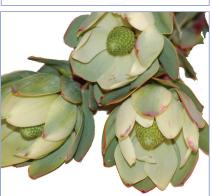
What's new?

Two-tone 'Jester', mentioned at the top of this article, has become a hot seller, especially at Christmastime. Diana Roy, of Resendiz Brothers, lists two dozen other interesting varieties of leucadendron in an edition of her newsletter issued last spring. Here are just a few of those she mentions:

'Red Blush': A bushy, spray-type leucadendron. It bears small, dark red bracts with a yellow center, great for fall bouquets.

'Maui Sunset' (also known as 'Highlights'): Hybridized in Hawaii during the early 1980s. Medium-sized bracts, a soft greenish-white in the early spring, turn soft pink as summer approaches.





Bright stamens are typical of male leucadendron flowers; female flowers bear hard cones. Photos courtesy of Resendiz Brothers Protea Growers LLC.

'Inca Gold': Vibrant yellow bracts combined with a red edge and red stems provide an exceptionally colorful display in late winter to early spring.

'Harvest': Creamy yellow bracts with a strong red flush to the edges surround a pompon-like flower of rich yellow. Each stem bears abundant flowers during the early spring months.

'Pom Pom': A cross with the giant, colorful male leucadendron 'Discolor'. Spectacular cream bracts surround the bright orange-red flowers which are produced during the spring.

'Red Tom': A multi-head variety with small, thin red bracts and a silver-green, coneshaped center.

'Orientale': Available in both male and female versions, both with a pleasant scent, flowering midwinter to spring. The male plants have longer and broader leaves.

'Pisa': Named for its willowy flowering branches that tend to lean in the wind. Lime-green bracts surround silver cones;

several cones can be found on each long branch, among the twisted, silvery-green leaves. Best late spring to early summer.

'Tintum': Golden yellow bracts age to a tone of red, changing color continually from midwinter through early spring. Male plants bear yellow flowers, while females produce large seed cones of deep bronze-red.

'Rossette': Green bracts surround large brown cones on multi-headed stems.

These and other distinctive varieties of leucadendron are just the kind of conversation starters that catch customers' attention, says Mike Balsink. "People are always looking for something new. Leucadendron also offers a great value because it's long-lasting and fairly inexpensive. It's basically everything you want out of a cut flower. I would suggest, challenge your local wholesaler to find these new and exciting varieties, or go online to search them out. This is how we're going to redirect the consumers to the professional neighborhood florist!"

Resources

Cut Flower Wholesale, Atlanta, Georgia 404-320-1619; www.cutflower.com or www.onlineflowersearch.com

Resendiz Brothers Protea Growers, LLC, Fallbrook, California 760-731-3305, www.resendizbrothers.com



COre tips

for leucadendron

- Select bunches with brightly colored bracts. Avoid stems with black or brown spots, an indication of improper postharvest handling.
- To help prevent black leaf spots, re-cut stem ends and place in a floral food solution. The sugar in the floral food keeps the plant from depleting its carbohydrate reserves in the leaves, a condition which can cause black spots.
- Condition at room temperature and then store leucadendron at 40 degrees F and 90% humidity in a floral refrigerator. Note that while leucadendron, like other members of the protea family, are longlived, they are native to a temperate rather than tropical climate. Keeping them in a floral refrigerator extends their vase life and helps to preserve their color. Make sure the refrigerator is well lit, as black spots can also result from inadequate light.
- Many varieties of leucadendron can be dried by hanging them upside down in a cool, dry environment. Their colors will change, but their unusual form will be maintained. Keep them out of direct sunlight and spray with a sealant after they are completely dried in 2-4 weeks.

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