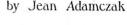
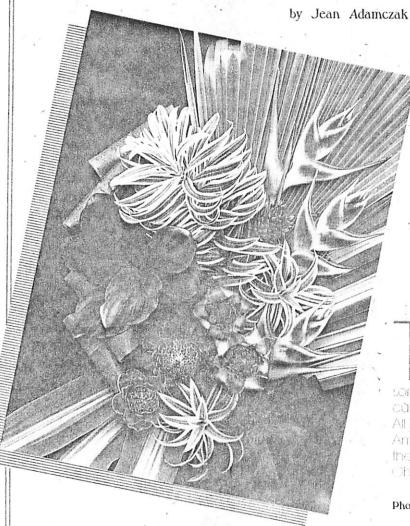
CARE AND HANDLING GUIDE FOR TROPICAL CUT FLOWERS





he following pages are a guide to the care and handling requirements for some of the most commanly used tropical cut flowers. Save it for quilik, easy reference. All information supplied Ly the Society of American Florists (SAF), > xandria, Va., and the DC Kiplinger Chair in Horiculture, The Ohio State University, Col imbus, Ohio

Photos courtesy of Jacob/Maryanne Doane-Mau

Anthurium

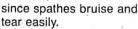
VASE LIFE:

14-28 days

HANDLING:

Unpack flowers immediately, inspecting for cold injury indicated by darkening of the spathe. Recut ½ inch off stems underwater.

If flowers have been dry for an extended time period or if they are visibly wilted and stressed, immerse flowers and stems in fresh roomtemperature water for 15 minutes. Handle anthuriums carefully at all times.



CONDITIONING:

To increase vase life, pulse in 1,000 parts per million (ppm) concentration of silver nitrate solution for 10-40 minutes. Then place flowers in clean, warm (80-100 degrees F.) preservative solution for several hours before use.

STORAGE:

Anthuriums are sensitive to cold temperatures. The optimum storage range is 55-70 degrees F. Cold injury will result if flowers are held at less than 55 degrees F. for 24 hours. Mist flowers with water before covering them with polyethylene film to prevent excessive transpiration. There are conflicting reports that resoaking

stems every two or three days and daily misting with water encourages longer life. These techniques may be beneficial if flowers are displayed in a warm, dry area. Individual shops should test to determine if these techniques work.

These techniques also help slow wilting.

RETAIL CARE:

Evaporation may be reduced by dipping the whole flower in a carnauba wax emulsion, such as a three percent solution of FMC Wax 819. Then place flower stems in

water until the wax dries. Other fruit waxes may also be used. This treatment can double the flowers' longevity. Flowers with thin, short stems weigh less and have a longer vase life than heavier flowers with thick, long stems.

CONSUMER CARE:

Consumers should recut stems and immerse flower heads in room temperature water for 10 minutes if the heart-shaped spathe appears wilted or flaccid. Then place stems in a preservative solution made with clean water. Replace solution every one or two days. Keep flowers away from temperature extremes and strong sunlight. Mist flower heads daily to replenish water lost in evaporation.

Bird-of-paradise

VASE LIFE:

Seven to 14 days

HANDLING:

Unpack flowers as soon as possible. Loosen bunches and remove protective paper bags and sleeves. Recut one inch off stems underwater.

CONDITIONING:

Tight flowers should pulse in a floral preservative solution adjusted to pH 3.5 with citric acid for 24 hours. A good pulsing formula for this flower consists of 10 percent sucrose and 250 ppm of 8-hydroxyquinoline (HQC) adjusted to pH 3.5 with citric acid. For blooms in other stages of development, condition in warm, clean preservative solution at 45-50 degrees F. and keep at 90-95 percent humidity for several hours prior to use.

STORAGE:

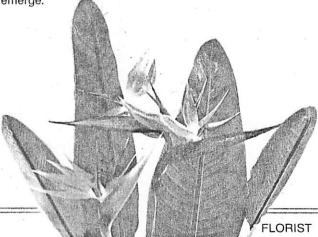
Birds-of-paradise in the tight bud stage may be stored up to one month at 47 degrees F. and 85-90 percent humidity if previously dipped in a fungicide to prevent botrytis and pulsed for two days with a floral preservative adjusted to pH 3.5 (see pulsing instructions under Conditioning). Cold damage occurs on flowers stored for longer periods of time.

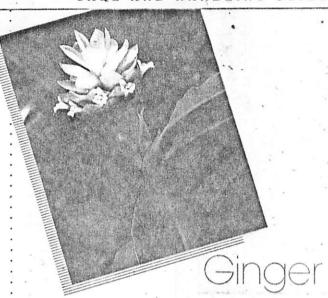
RETAIL CARE:

Cut bird-of-paradise blooms generally do not emerge on their own. To manually open flowers, soak flower heads in lukewarm water for 20 minutes. Make a ½-inch slit at the back end of the pod near the stem. Reach into the pod with your thumb and gently lift out the desired petals. Hold the pod carefully at the bottom and gently pull the new blossoms up into a fan. Remove all older petals before coaxing new flowers from the stem.

CONSUMER CARE:

Advise customers to recut stems one inch every five days and to change the water every one or two days, always adding more floral preservative. Old, withered flowers should be removed from stems to allow new flowers to emerge.





VASE LIFE:

Seven to 14 days

HANDLING:

Unpack flowers immediately. Recut two to three inches off stems underwater. If flowers appear limp and wilted, soak stems and bracts in room-temperature water for at least 30 minutes before use. Soaking may also help eradicate insects in bracts. When soaking flowers, make sure water doesn't accumulate in the ginger's open sheath as this will cause rotting of enclosed flower parts.

CONDITIONING:

Place stems in a bucket of room-temperature water containing floral preservative solution. Place bucket in an area of high humidity (90-95 percent) several hours before use.

STORAGE:

Ginger varieties are sensitive to cold temperatures so avoid exposing them to temperatures less than 45 degrees F. and maintain flowers in a high humidity area. Many gingers respond negatively to gravity by bending upwards when placed horizontally, so store stems in an upright position.

RETAIL CARE:

There are conflicting reports that recutting stems and misting blooms should be done daily and that soaking should be repeated every two or three days. Some ginger varieties reportedly benefit from filling bracts with water, but water sitting in bracts may also cause disease and rot. Some of these techniques may be beneficial if flowers are displayed in a warm, dry area, but should be tested in individual retail shops. Remove flowers growing between bracts of wax and spectabilis ginger before sale and delivery. Otherwise, the flowers will die before the decorative bract does.

CONSUMER CARE:

Tell purchasers to recut ginger stems and replenish preservative solution every one or two days. Avoid exposure to temperatures below 45 F. and keep away from heat sources and drafts.

Heliconia

VASE LIFE:

10-14 days with the exception of Lobster Claw (heliconia humilis), which lasts up to 28 days and Rubra (heliconia psittacorum), which lasts three or four days.

HANDLING:

Unpack heliconias immediately and recut two or three inches off stems. Discard any flowers with black and/or bruised, cracked broken bracts. Brown, shriveled bract tips indicate excessive dryness during shipping. The affected parts can

of exposure to temperatures below 55 degrees F. A warm, humid environment is the key to their longevity. Store at 55-60 degrees F. and 90-95 percent humidity. Most heliconia varieties can only be stored for five to seven days.

RETAIL CARE:

Heliconia bracts may need to be cleaned prior to design and display. Use warm, soapy water and a clean water rinse to remove dust and dirt. Oil based plant sprays and leaf shines are not beneficial since these coatings may attract dust. Since heliconias do not develop.

be trimmed off and the flower saved if damage is not extensive.

CONDITIONING:

Heliconias do not take up preservative solution after harvest, but using a preservative is suggested, if only to retard bacterial growth in the solution. They also take up a minimal amount of water, but place stems in clean, warm water (80-100 degrees F.) to keep the ends from drying out. Maintain 90-95 percent humidity. Do not soak heliconias in water. Water shouldn't collect on open sheaths because enclosed flower parts may rot.

STORAGE:

Heliconias are extremely sensitive to cold so do not refrigerate. Cold injuries, indicated by black flower parts, appear within hours after harvesting, flowers should be purchased in the stage of development desired. Before sale, delivery or use, remove any florets which appear between bracts.

CONSUMER CARE:

Advise customers to recut stems and place in a clean container of warm, clean, deionized water. Suggest using a floral preservative to retard bacterial growth. Change vase water every two or three days. Customers should also keep flowers away from extreme temperatures.



CYMBIDIUM

DENDROBIUM

ONCIDIUM

VASE LIFE

Cymbidium: Seven to 10 days; Dendrobium: Seven to 21 days with tremendous differences between varieties and sources; Oncidium: Seven to 10 days with some varieties lasting 21 days.

HANDLING:

The spray orchids listed are ethylene-sensitive flowers; unpack them immediately to prevent accumulation of ethylene gas from damaged flowers, which should be removed from the stems. Handle the orchids gently, taking special care to avoid rubbing flowers against other blooms or rough surfaces. These orchids are also cold sensitive, so don't expose them to temperatures below 45 degrees F.

CONDITIONING:

If orchids were shipped dry pack, without water tubes, recut stems underwater and place in tubes or buckets of water containing floral preservative. If orchids were shipped in tubes, recut stems underwater and change the water.

STORAGE:

Spray orchids in water tubes may be stored in their original shipping cartons or upright in racks. Hold them at 50-55 degrees F. for up to seven days. If spray orchids are put into holding buckets, avoid overcrowding so flowers won't get tangled. Don't place near flowers emitting ethylene. Remove old flowers from sprays as they wither. Commercial floral preservative may be used in water tubes, buckets, corsages and arrangements as it helps keep holding water clean.

RETAIL CARE:

Make sure water tubes and holding buckets contain sufficient water and preservative solution. Corsage flowers last longer if stem bases are wrapped in moist cotton. Maintain flowers in a humid environment at 50-55 F. Misting and soaking orchids is often recommended and may help, but has not been consistently shown to increase vase life. Do not soak oncidiums.

CONSUMER CARE:

Advise customers to store orchid corsages in plastic bags with moist pieces of paper. Tell them to keep all orchids away from fresh fruit and vegetables which emit ethylene. Arranged or loose orchids should be recut underwater and placed in fresh preservative water every two or three days.

Proteo

VASE LIFE:

Protea: 10-20 days; Leucospermum (sunburst or pincushion proteas): Seven to 14 days; Leucadendron (foliage proteas): 28-42 days; Banksia: 10-20 days

HANDLING:

Unpack and unwrap proteas immediately upon receiving. To avoid leaf blackening, handle flowers very carefully and recut stems under warm water. Remove as little foliage as possible, taking off just those leaves that will be submerged in the holding water.

CONDITIONING:

For best hydration, place stems in a clean, warm water solution of citric acid, pH 3.0-3.5, for two to three hours. After hydration, transfer flowers to a fresh, warm (100-110 degrees F.) floral preservative solution

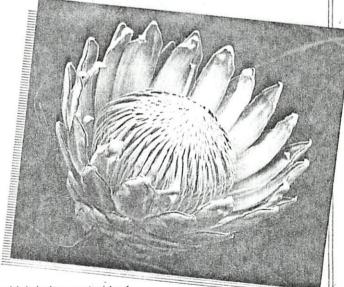
RETAIL CARE:

Proteas generally have heavy stems so recutting is important, but mashing ends isn't necessary. Proteas are very thirsty flowers, so be sure to replace floral preservative water daily. Recutting thick stems every three days helps keep water-carrying vessels open. Protea, banksia and leucadendron make good dried flowers. If dried, store these varieties in a wellventilated location until needed.

CONSUMER CARE:

Advise customers to handle proteas carefully, recutting the stems frequently and replacing floral preservative solution daily. Also tell them to keep flowers away from heat sources and drafts.

If you wish to obtain further information about the



which helps control leaf blackening.

STORAGE:

Proteas are cold sensitive, so avoid exposure to temperatures below 45 degrees F. Refrigerate at 45-50 F. with 90-95 percent humidity. care and handling of tropical and exotic flowers, contact the SAF for a copy of *Tropical Flowers and Tropical Foliage*, a supplement to its *Care and Handling of Flowers & Plants Manual*. The SAF may be reached at (800) 336-4743.