November in Your Orchid Collection

Euanthe sanderiana

November Climate Data
Average high: 81.2
Average low: 67.5
Average mean: 74.4
Average rainfall: 3.43"

In November we can no longer afford to be dominated by the illusion, so easy here at the northern edge of the tropics, that summer will never end. Although Indian Summer persists for the whole winter in South Florida, November is the month to prepare our plants for those short sharp blasts of cold which are inevitably coming as each successive cold front pushes the overall temperature a little lower and a little lower. Each day is shorter too. The loss of daylight savings time should awake us to the fact that there are less hours of sunlight to save our plants from the chill of the night. Many genera are already anticipating this sea change and have completed their growths for the season. Some like Catasetum, Cycnoches, Calanthe and the nobile dendrobiums are even beginning to shed their foliage in preparation for the cool, dry season. While the Himalayan Dendrobium species of the nobile and Callista types, calanthes, cymbidiums and and a few others, actually relish temperatures down to near freezing, and most cattleyas and Oncidium alliance species and hybrids are not bothered by temperatures in the mid-thirties, the majority of the genera which we grow, vandas, evergreen dendrobiums,

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Phalaenopsis and others, benefit from being protected from the cold. Now, while the first breathes of cool air remind us that more and stronger cold is in the offing, is the time to start thinking about protecting our plants.

In nature nearly all the tender tropical epiphytic orchids native to South Florida are found nestled in the bosom of deep hammocks where they are well protected from the wind. This observation leads us to think of protecting our orchids from the north and northwest winds. Creating or utilizing already existing wind breaks to the north and west of our orchids will limit the ability of the wind to steal the warmth out of our plants. The critical factor is not the low temperature that the air reaches but rather the temperature to which the plant tissue is chilled and for how long. This is why limiting the movement of cold air over our plants is essential. In still air, plant tissue (mostly water but with some dissolved salts) retains heat for a long time and is aided by the plants' metabolism. The very goings on of life generate heat, therefor considerable exposure to still air is needed to chill a plant to the temperature of the surrounding environment. Not so if wind enters the picture. Wind can quickly rob the plant's surfaces of heat, chilling the plants tissue deeper and deeper. When the plant's temperature tolerance is reached, at best growth ceases or worse yet damage ensues. Slowing the cooling process and limiting the hours of exposure to sub-optimal temperature is the best gift we can give our plants for the holidays.

Protecting our tender plants from exposure to wind must be our primary concern in preparing them for winter. Buildings, walls and even thick hedges can be very effective windbreaks slowing or stopping chill air. Choose places in your garden that offer this sort of protection to your orchid plants wherever possible. The geography of Florida plays into the equation as well. Because the Florida peninsular juts decidedly to the Southeast (Naples is due south of Jacksonville), protection from the Northwest wind is even more crucial than protection from the North wind on the east coast of Florida. Northwest winds are blowing out of the cold heart of the landmass while true North winds have in most locales usually blown over more warm water and less cold land. Regardless of the degree of north, safeguarding our collections from the wind is critical to their healthy maintenance. Not until the air circulating clockwise around the cold high pressure system shifts to the Northeast to blow over the warm Gulfstream can we relax our guard.

Orchids that are grown in shade houses, in patios or pool enclosures can be protected by installing plastic film on the north and west walls of the structure. This can be attached with staples or other devices that allow the plastic to be furled in warm weather and only lowered for those few nights when it is needed. Easiest to come by (Home Depot, or any hardware store) and cheapest, is 6mil clear polyethylene (don't use 4mil; it rarely lasts the winter being exposed to Florida's bright ultraviolet light). One hundred feet by ten costs about $20. Stored in a dark place, this stock will last the average grower several years and be a very small investment that will yield greatly improved orchids. Handled with care in furling and unfurling, 6 mil plastic usually will get the grower through the winter. If unobtrusive,

it may be simply left in place till March. White polypropylene, similar to nursery ground cloth, is used by many nurseries for winterizing. More expensive than polyethylene, it is very durable and will last many more years. Some growers have it cut to size, taped and grommeted for easy up and down installation and storing. Universal Supply (1-800-432-3009) has it. Given the dimensions and enough lead time they can customize it for you.

Getting our growing area ready for winter is one half of the equation. We must also get the plants themselves ready. Healthy, well-nourished plants withstand cold better as do plants that are harder and not too lushly in growth. Because both light and temperature are lower in November and most orchids have slowed their growth, they need less fertilizer. In cooler weather ammoniacal nitrogen is less available to our plants because it needs the assistance of bacterial action to ease its absorption by the plants. Nitrate nitrogen is more desirable therefore in cooler weather, because it is more quickly and readily absorbed by the orchids. Check the label on your fertilizer and try to choose one with a higher ration of nitrate nitrogen to ammoniacal nitrogen for winter use. The very best source for nitrate nitrogen is potassium nitrate(KNO3). It has the formula 13-0-44. The lower level of the desirable nitrate form of nitrogen is well suited to the continuing but diminished nutritional needs of our orchids in cool weather. The level of potassium is thought to contribute to the 'hardening' of the plants. Try to obtain the soluble or 'Spray' grade. If only Prills (small beads like tapioca) are available they will need to be dissolved with boiling water, a tedious task.

Potassium nitrate is superlative also because it contains no phosphorus which, in combination with our hard, alkaline water interferes with the plants' absorption of trace elements. Trace element nutrition is especially important to maintain healthy orchids in cool weather: above all, magnesium, the 'major' minor element. The reddening of orchid foliage which is usually attributed to cold is in fact the symptom of magnesium and potassium deficiency. Cold is only the efficient cause of this reddening; the material cause is lack of magnesium. Epsom salts at 1tbs. per gal plus potassium nitrate at the same rate will quickly bring back the green. This regimen can be alternated with a general trace element mixture(follow the package rate) plus potassium nitrate. Indeed, following the recommendations of the Michigan State University study published in the July 2003 issue of Orchids, symptoms of magnesium or potassium deficiency might be a warning that we should have been following something closer to this "winter" fertilizer regimen all year. We now recommend alternating applications of 1TBS each of Epsom salts and potassium nitrate with a balance fertilizer such as 20-20-20 or 18-18-18 year round not just in the Fall. Best of all is a 15-5-15 with additional calcium and magnesium. Peters markets one as Excel.

The Epsom salts are as near as your medicine cabinet. The potassium nitrate is more difficult to find but a trip to the nearest Farm supply store is worth the effort. You'll save a bundle on fertilizer and have plenty of potassium nitrate left over to grow the biggest bunch of bananas in the neighborhood.

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If you have the energy, November is also a great time for starting to pot those sympodial orchids (cattleyas, oncidiums, et al) that have finished blooming. You'll have a leg up on the Spring potting and will glow with virtue in expectation of the rewards of the Holidays. Be especially careful at this season that the newly transplanted orchids are well secured in their containers. It may be many weeks till they have broken growth and can anchor themselves with their own roots. If the plants are allowed any wiggle room the newly emerging roots will be chaffed off, sending the plant into a slow and difficult to reverse decline.

Tasks for November

- Prepare for cold
- Reduce fertilizer
- Apply extra Potassium and Magnesium
- Segregate dormant genera in bright dry area
- Repot plants after flowering
- Groom plants and flower spikes for holiday display.