



St. Augustine Orchid Society

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Phalaenopsis – Blooming and Bud Drop

January 2001

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Winter is officially here and with the short gloomy days comes the beginning of Phal season. Phalaenopsis can put on a spectacular floral display. Several nurseries in the Carolinas are well known for greenhouses full of blooming Phalaenopsis during winter and spring. It is not unusual for a single, well-grown, mature plant to have 15-25 four-inch flowers that can last for months. Under the right conditions, they will continue to add new blooms through the spring and into summer. But what are those conditions and how can the hobbyist create them inside the house or in a greenhouse?



Phal. Be Tris
(Phal. Be Glad x Phal. equestris)

First the hobbyist must remember that there are different breeding lines among Phalaenopsis and they are not all equal when it comes to holding onto their flowers. The multiflora-type that is bred from Phal. equestris is among the most temperamental. This line of breeding can produce individual plants with 50 or more 2 ½ inch flowers on magnificent upright spikes. Unfortunately, rapid changes in humidity, temperature, or a little unburned gas byproducts can cause these plants to drop buds and flowers.

Many types of gas heaters do not fully vent all combustion gases. During very cold weather these gasses can accumulate leading to flower and bud loss, especially among equestris hybrids. Semi-alba Phalaenopsis are included in this group because they are bred largely from Phal. equestris. Although larger, they share the tendency to drop buds and flowers. This group is also warmer loving than other breeding lines and likes to be kept at or above 65 F at night. Pink Phals, especially those with beautiful mottled leaves, and those with Phal. stuartiana, another multiflora type, also like warmer temperatures. They share, with Phal. equestris hybrids, the tendency to drop buds and flowers when rapid changes in temperature or humidity occur.

Standard Phals, those bred largely from Phal. amabilis, seem to have the most resistance to environmental fluctuations and perform the best for hobbyists. Greater substance in the flowers and a genetic background that includes ancestors that tolerate cool nights gives them additional tolerance. While they also prefer to be 65 F at night, they seldom drop flowers if temperatures drop to 60 F. but may do so if it gets much cooler.

Hobbyists growing indoors are plagued by low humidity during cold weather because home heating systems dry air, reducing the relative humidity of the air. There can also be problems when Phals produce flower spikes indoors. Do not let the spike get too near



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lights or touch the cold glass on the window, as the tip of the spike will be damaged. Most commercial growers tie spikes once they begin to form buds. In the windowsill, plants have a tendency to grow spikes in unusual directions so it may be necessary to tie spikes before they begin to form buds.

Stakes should be tied just below the first bud if you want the spike to arch gracefully. To accomplish this place the uppermost tie about halfway between the last two nodes on the spike before the first bud. Be careful to avoid blocking the little sheath on these nodes as branches can emerge from the small soft tissue hidden there. Do not tie the spike tightly near the top until the first flower is open. Typically, the spike will elongate until buds have fully formed. As flowers appear it may be necessary to add weight to the rear of the pot, especially if the plant is in a plastic pot. Many growers put plastic pots inside clay pots to avoid having the whole plant crash off the windowsill or bench as flowers open.

What do you do if your Phals have not begun to spike yet. This is not an unusual problem for indoor growers. First be sure these Phals are not summer bloomers. Other Phals with a strong dose of Doritis, correctly called Doritaenopsis, may also begin flowering later in the spring or early summer. Otherwise healthy Phals should be in spike now. If they are not they may not have gotten enough light during the growing season. Or they may not have gotten the environmental notice that it is time to flower. Nature sends that message with decreasing day lengths and cool nights. Plants inside or under lights may not get the message. Try shortening the day length and cooling them at night by shutting off vents slightly to keep them cooler at night.

Paphs are also preparing to provide flowers. These spikes are usually easier to manage, as they do not typically grow as long. Given the long life of these flowers it is worth spending some time to get them oriented properly. One odd thing about Paphs is that many also begin new root growth while in flower. New root growth is always a good time to repot even if most good growers usually advise against repotting Orchids while in flower. If you do repot it will be necessary to tie the flower spike so that the plant stays firmly in place while new roots are growing.

Every now and then a new product comes along that is just what Orchid growers need. This time it is a cable free thermometer from Oregon Scientific. A digital display placed at your bedside tells you the temperature in your greenhouse as well as the temperature in your house. You can also add another monitor so you will know the temperature outside if you wish. It runs on small batteries and works as advertised. The product cost less than \$30 at Home Depot's Garden section. It may also be available at other retailers.