



SPEAKER SEGMENT

By Kara Warnock

Our speaker this month was fellow club member Matt Riesz, who gave a talk entitled “What do I do with my orchid now?” Matt and his wife, Marita, officially joined the orchid club in 2013 when they purchased their house in Spring Hill. They permanently relocated to Florida from New Jersey in 2015, and they have become invaluable active members in their contributions to our club.

What qualifies as an orchid you might ask. There are specific characteristics that are unique to all orchid flowers. They include flowers consisting of 3 petals and 3 sepals, one sepal being specialized to form the lip of the flower. The male (anther) and female (stigma) reproductive organs of the flower are located together on a central structure within the flower known as the column. Orchid seeds do not contain any endosperm, which helps to nourish the seed as it grows, and are unique in that most orchids rely on a symbiotic relationship with a fungus that allows the seed to develop into a plant. Also, orchids are the only flowering plants with bilaterally symmetrical flowers. Meaning that if you were to take an orchid flower and draw a line directly down the center of the flower, both halves of the flower would look identical to one another.

Orchids are the largest group of flowering plants in the world with over 30,000 species, and there are over 150,000 registered crosses of orchids. Orchids can be found on every continent in the world, with the exception of Antarctica. They exist at almost every altitude ranging from sea level up to 15,000 feet in elevation. The majority of orchids are epiphytes (air plants) found growing on trees. Firmly attached to the surface of the tree, orchids obtain their sustenance from the air and water that flow across their roots. There are some species of orchids that are terrestrial, or ground orchids, that grow in loose soil among leaf litter. There are even some species of orchids that are deciduous producing new growths each year from an underground rhizome. *Cypripedium acaule* or the pink

lady’s slipper is a well-known deciduous orchid that is native to the north east. There are several things that orchids require in order to be grown well. The first thing that an orchid needs is good quality water that is not too high in salts or minerals. Ideally if you are able to utilize rain water or reverse osmosis water for your orchids that would be preferred. Orchids like water that is slightly acidic and low in total dissolved solids (TDS). If you have a water softener installed on your home you should not water your plants using the water that has been processed by the softener. You should water your plants from a source of water, such as a garden spigot, that has not yet reached the softener. The reason being that a water softener will add salt to the water, and watering the plants with a source high in salts will lead to the ultimate decline and death of the plant. Although not ideal orchids will tolerate hard water, however, owners will need to flush the pots with running water for several minutes at least once a month to avoid too much mineral accumulation around the roots of the plant.

When watering orchids you should thoroughly wet the plant by running water across the roots until they are saturated or until the roots have turned a deep green shade, and plants should be allowed to dry out completely between waterings. It is recommended that you water your orchids in the morning so that they have all day to dry off otherwise they will be susceptible to bacterial and fungal problems. Matt likes to water his potted orchids once a week. You may need to water your plants more or less often depending on your growing environment and potting medium. A good way to test if your orchid needs watering is to place your finger up to your second knuckle into the medium in your pot; if the medium feels dry your plant is in need of watering, and if it is still a little damp you should wait a little longer before your next watering. Vandas and other species of orchids that are grown mounted are the exception to these watering rules, as they should be watered daily. It is essential to understand what type of orchid you have so that you know how best to water it.

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. For example, some species of orchids such as *Dendrobium lindleyi* (aka *Den. aggregatum*) as well as orchids in the *Catasetum* family require a dry period where the orchid receives no water at all, sometimes for periods up to 4 months. Other orchids such as *Phragmipediums*, which grow in the wild along stream beds, enjoy a constant source of water around their roots. To replicate this habit artificially, Matt likes to keep the feet of his *Phrags* wet by placing a saucer full of water (replenished daily) directly beneath his plants.

The next thing any orchid needs to grow is light. Since different species of orchids occupy varied locations within the tree canopy they require more or less light depending on where they are situated. Therefore, you will need to know what type of orchid that you have in order to determine what light levels will provide optimum growth. Some species such as *Phalaenopsis* and mottle leafed *Paphiopedilums* prefer shady conditions. While *Cattleyas*, *Cymbidiums*, and *Bulbophyllums* will require very bright light to full sun in order to be grown and bloom well. If you are growing orchids inside the home it is important to choose the right window in which to grow your plants. An east facing window will usually provide the perfect amount of light for most orchids in the home. A west facing window will most likely provide sufficient light for orchids. While a south facing window is typically too bright and a north facing window will not provide enough light for most orchid species. If the light levels from your window are a little too bright for your plants you can use a sheer curtain or slatted blinds to help regulate the amount of light that reaches your plants.

Air movement is important to orchids, especially for those of us growing orchids inside the home. Orchids that are grown outside are accosted by gentle breezes that allow the plant to breath. However, inside the home air can become stagnant so you should consider placing a fan in your growing area in order to provide gentle movement of air across the plants in order to help keep oxygen around the flowers. In addition to good air movement adequate

humidity is essential to keeping orchids happy; with a relative humidity of 70% preferred. Orchids will begin to struggle when humidity levels fall below 50%, and in the home it is not uncommon for humidity levels to drop as low as 20-30% (especially during the winter months). There are a couple of things that you can do in the home to help keep humidity levels up around your plants. One thing you can do for your plants is to make a humidity tray, which is a container capable of holding water that is lined with small pebbles or other material able to elevate the plants above the standing water. As the water evaporates from the container it helps to increase the humidity surrounding the plants. Another way to increase the humidity around your plants in the home is by grouping your plants together; the more plants you have together the higher the humidity will be surrounding those plants.

Finally temperature is important to orchids. Orchids are usually categorized as warm, intermediate, or cool growing dependent upon their temperature needs. Most of the orchids we grow here in Florida are tropical or warm growing with day time high temperatures between 80-90F and lows of 65-70F. Some of the intermediate growing orchids, daytime temperatures of 70-80F and lows of 55-65F, will tolerate being grown here provided you find the right location in your growing area. *Oncidiums* are generally classified as intermediate to cool growers, yet there are several species we are able to grow here in Florida. However, cool growing orchids which require daytime highs of 60-70F and lows of 50-55F at night will not tolerate our Florida heat. Orchid species such as *Masdevallias*, *Draculas*, and *Cymbidiums* are predominantly cool growers, and should not be attempted unless you can provide the right microclimate for growing them. Through hybridization orchid breeders are working on creating more warmth tolerant hybrids of these typically cool growing species. Temperature also plays an important role in the initiation of flower spikes for some orchids.

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Phalaenopsis orchids will require a drop of night time temperatures (at or below 50F) for a 2 week duration in the fall in order to produce their spring time flowers. Noble dendrobium orchids will often flower 6 weeks after they have received consistent night time temperatures below 57F for at least a week, and they seem to flower best after having received some chilly nights with temps into the 30s.

In order to understand which kind of orchid that you have, you must look at the tag that came with your plant. The tag will tell you the identity of the orchid and from there you can make some generalizations based on that information on how best to grow your plant. To figure out exactly what kind of plant you have you must understand what the parts of the tag mean. Matt used the following tag from one of his plants as an example:
Rcv. Jimminey Cricket 'Marita' AM/AOS

The first 3-4 letters at the beginning of the tag are an abbreviation for the genus of the orchid. In this case Rcv is short for Rhynchovola. The next part of the tag will indicate if the plant is a species or a hybrid (grex). If the plant is a species the specific epithet name will appear in lower case and if it is a hybrid (or cross between two different orchids), as is the case for Jimminey Cricket, the name will appear capitalized. The next portion of the tag, 'Marita', is the cultivar or clonal name, which begins by using a capital letter and is contained within single quotation marks. Orchid breeders may assign a cultivar name to any plant with exceptional qualities such as attractive colors, abundant blooms, or vigorous growth. These exceptional plants are often cloned to create numerous plants that are genetically identical to one another. Following the clonal name you may find any award designation that the plant has received. In this case, this orchid earned an Award of Merit (AM) from the American Orchid Society (AOS). For plants that have earned an award, growers are able to designate a clonal name for that plant, and any future clones or divisions from that plant will also be given that clonal name.

There are several good resources for orchid growers to use to learn more about the plants they own. The Royal Horticultural Society's (RHS) international orchid registry can help you obtain background information on the parentage of your orchid. The website for their database is apps.rhs.org.uk/horticultural_database/orchidregister/orchidregister.asp. Other database resources include software programs such as the AOS AQ Plus and Orchid Wiz. These programs (available for purchase) contain hybrid background information, numerous photos of the orchid, and a list of current awards for the plant. Also, on the AOS website (aos.org/orchids/culture-sheets.aspx) new orchid owners can find helpful information pertaining to growing a particular genus of orchid.



Matt Riesz speaking on “What do I do with my orchid now? And what does that tag mean anyway, and why should I care?”