



Southern Tier Orchid Society

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October 2014

NEXT MEETINGS

October 19, 2:00 First United Methodist Church of Endicott

November 16, 2:00 First United Methodist Church of Endicott

IN THIS ISSUE

- Don't miss our October meeting - Krum Sotirov will be speaking on "Orchid Pests and Diseases"!

MISCELLANEOUS NOTES

- Krum Sotirov will give a presentation on "Orchid Pests and Diseases".

Any contributions, articles, and/or photos for the monthly newsletter are appreciated! Please submit any inputs by the first week of the month for inclusion in the upcoming newsletter.

EDITOR'S NOTE

Contributions, including pictures, to the STOS newsletter from members are welcomed. Contributions must be submitted by the 5th day of each month to the editor.

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get a pretty good estimate using just your hand. On a clear day, position yourself so that your hand is between your plants and the light source and about 12 inches from the leaves and observe the shadow, if any, your hand casts. If you can see no shadow, you probably do not have enough light for any orchids with the exception of the jewel orchids which are grown more for their leaves than flowers. If the shadow is fuzzy and faint to moderate your light level should be sufficient for *Phalaenopsis* and *Paphiopedilum* which require less light than most orchids. If the shadow you see is sharp, you most likely have sufficient light for all but the highest light-requiring orchids like cymbidiums, vandas and ascocendas.

Don't let anyone tell you that you can't grow a mixed collection of orchids. Hobbyists do it all the time. They just take advantage of the variation in conditions throughout their growing areas. As far as light levels are concerned, direct sunlight entering an unshaded window can be as high as 4,000 to 8,000 footcandles measured directly at the glass while it may only be as low as 500 footcandles just inside the shade off to the side of the same window. Lower light plants like *Paphiopedilum* and *Phalaenopsis* can be staged in these shady areas while higher light plants like oncidiums and cattleyas can be arranged closer to the center and nearer the glass. It just takes a little experimentation.

Quality vs Quantity

Plants need red and blue light and they reflect green. Light from the red end of the spectrum is critical for flowering while that from the blue end is used in growth. This is usually not a problem when plants are grown out-of-doors or in a greenhouse unless the greenhouse skin is very old and has yellowed to the point that the spectral quality is poor. However, for plants grown under lights, this can be an important factor and is the reason that many books recommend a mixture of 50:50 cool-white and warm-white fluorescent tubes in the light rack. Spectral quality can also be an issue if you are growing your plants in a sunroom glazed with bronze or other colored glass since these glazing materials may filter out much of the spectrum used by plants.

Duration

Longer is not always better. First, plants need a night just as we do. They are adapted to the daily cycle of the sun and different parts of their metabolic cycle are accomplished during light and dark periods. In addition, many orchids, especially species, are adapted to changes in day length. This is called photoperiodicity. Fall-blooming cattleyas flower as day length shortens while spring-blooming ones as day length increases. If these plants are grown under conditions of constant day length they may never flower. The old cattleya cut-flower growers used this knowledge to time flowering for important holidays and it's used today by Poinsettia growers for the Christmas market. Why is this important to the hobby grower? It's really quite simple. While a street light outside your greenhouse or living room window will produce such little light that being on all night won't matter that's not the case for lights in your growing area. If your only choice for a growing area is one that is lit late into the night, it would be best to concentrate on those plants like *Phalaenopsis* that flower without regard to day length.

Too Much Light

Unlike too little light whose effects are often insidious, the opposite can be true of too much light. Too much light, especially if it's a sudden change usually results in dramatic damage (sunburn) in very little time. The first sign of too much light is often yellow foliage. If left alone, this yellow foliage will eventually turn white and then dark brown and dry as the sunburned area dries out. Plants chronically exposed to too much light but not enough to cause sunburn will be stunted with yellow, hard foliage. If the problem is caught before the chlorophyll has been completely destroyed it is often possible to reverse the damage. Once white spots or sunken areas have appeared, the damage is irreversible and the best thing one can do is stop further progression with more shade.

This is one area of orchid culture where you want to make changes SLOWLY. Orchids are easily sunburned if light levels rise too fast. When moving plants around, especially when bringing them outdoors after winter, err on the side of excess shade. Make changes when you are going to be home and can watch the plants. Feel the leaves. The palm of your hand is about 93F. If they are hot to the touch, the leaf temperature is well about 95F and serious damage can occur in very little time.

Courtesy, [American Orchid Society](#)

