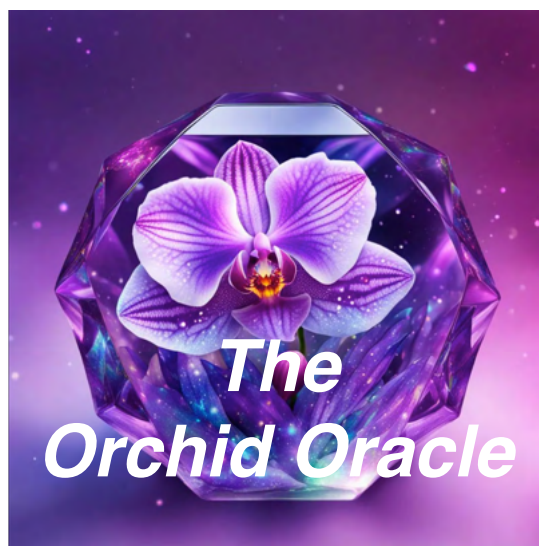




July



2026

President's Thoughts

Board Members:

- * President: Jim Pearce
- * Vice President: Erin Nelson
- * Secretary : Edwin Weber & Savannah Brommer
- * Treasurer: Jo E. Cook
- * Show Chairperson: Linda Drummond
- * AOS Representative: Harvey Singleton
- * Newsletter Editor: Suzanne Sawyer
- * Member at Large: Donna Foreman
- * Member at Large: Ernie Smith

Committee Chairs:

- * Librarian: Scott Rettenmund
- * Refreshments: Jeanne McKinnie

Email:

Email: sosorchidsociety@gmail.com

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spokane.orchid.newsletter@gmail.com

Website: www.spokaneorchids.org

It's a special time for all when we can enjoy celebrating the United State's 250th birthday. I hope a few of you will look back at this, as the country celebrates it's 300th!

Our July is filled with two special orchid society events: July 4th - Scott's garden tour and July 12th - our Picnic at Sharon's house. You can rest the remainder of the month. As mentioned previously, we will NOT have a monthly meeting in July. So put on the sun block and join in on the fun!

Thank you Jean and Don for hosting, once again, the re-potting event in June. Also present were Alisa & Steve, Joan, John, Cathy, Jim, Harvey, Penny, Kevin & Carrieann, all enjoying the weather (perfect!) and getting their hands dirty.

We are still looking for a **TREASURER**, as Jo vacates her position this fall. Jo wants to train/work with her replacement as much as possible before the transition. Please step up and participate in this most important position; without a treasurer we won't have a society as we know it today.

Stay cool, hydrate, and care for your orchids the same way.

Jim

SOS 2026 Calendar of Events

Date	Event	Time/Location
Saturday, July 4, 2026	Open House at the home of Scott Rettenmund	10:00 am to 1:00 pm
Sunday, July 12, 2026	SOS Pot-luck Picnic <i>*Bring a dish to share</i>	11:00 am Start Time Home of Sharon Chatterton (see map below)



Up-coming Summer Events & Dates

We will ***not*** have a general meeting in the month of July, as the Orchid Society Picnic is the main activity for the month. Society announcements can be made during the picnic as needed.

Sunday, July 12, 2026: Annual SOS Pot-luck Picnic will be held at the home of Sharon Chatterton, who lives at 5524 N. Fleming, Spokane, WA 99205, with an 11 am start time.



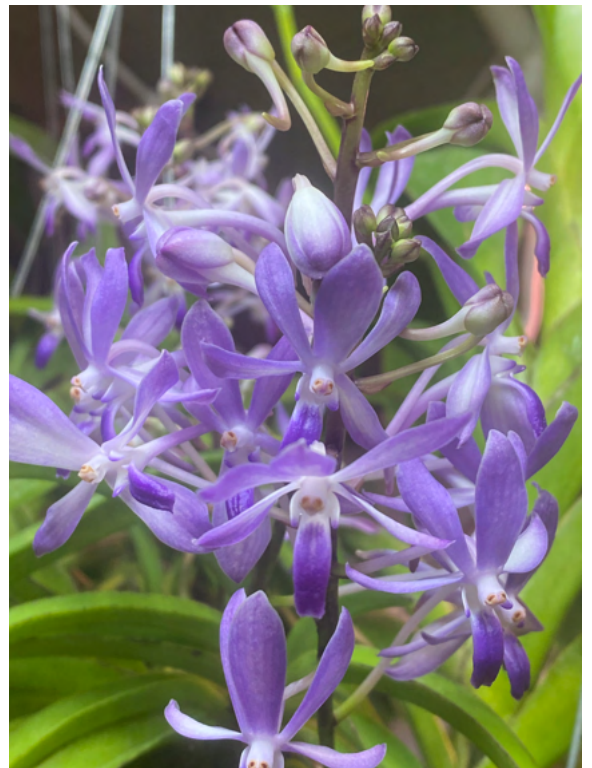
Friday, August 7, 2026: *If you have tickets for the baseball game*, please arrive at Avista Ball Park by 5:45 for a 6:35 PM start time. The SOS skybox is #21 at the end of 1st base. They have strict bag policy/bags no larger than 5x8x2 or clear bags up to 12x12x6. Water must be in a new unopened bottle or your own with ice only. A water fill station is by Coors beer stand. It is a cashless stadium - cards only. Food will be waiting for you. BYO beverage.

Saturday, August 15, 2026: Opportunity to visit the Botanica Orchid Nursery in Missoula, Montana. Carpooling will be arranged at the August SOS meeting.

AOS CORNER with Harvey

Instead of reading a lot in this AOS Corner, go to AOS.com and download FOR FREE the 80 page booklet titled “Fragrant Orchids.” It is quite amazing, starting with “How to Start and Build a Fragrant Orchid Collection”. It then progresses through the history of fragrant orchid development for different types of orchids. And you do not have to be a member of AOS to do the download. (*Fragrant orchids pictured below were grown by Mem Weisbeck/ *Stanhopea embreei* on the left and *Neostylis* Lou Sneary ‘Bluebird’ on right)

*Happy Summer - Grow well
Harvey*



**Photos from our SOS Re-potting Day, which was held on June 13th at Jean's place.
Thank You Jean!**



Orchid Tips and Information for New Growers

The Importance of Orchid Fertilizer

Source: American Orchid Society

We discussed orchid fertilizers at the June Orchid Society meeting, so here is a little more information from the American Orchid Society about orchid fertilizers as a follow-up to our June discussion.

When you ask someone what fertilizer is, you'll often get the ubiquitous answer "fertilizer is plant food". But that is not really the case, as we know that plants photosynthesize, and that light is food for plants. Fertilizer really is just a multivitamin for plants. And like a multivitamin, fertilizer does not have to be added all the time; just as it's needed.

Fertilizers are comprised of macronutrients and micronutrients – named as such because of the relative quantities that they are needed by the plant.

Macronutrients include elements such as Nitrogen (N), Phosphorus (P), Potassium (K), Calcium (Ca), Magnesium (Mg), and Sulfur (S), and are consumed by the plant in the highest quantities[1]. Micronutrients include many elements, but the most important are Boron (B), Iron (Fe), Zinc (Zn), and Copper (Cu). Micronutrients are typically used as cofactors for enzymes and for electron-transport during the light-harvesting reactions of photosynthesis.

Nutrients in general are also classified as mobile or immobile nutrients due to their ability to move (or not) throughout the plant. You can diagnose certain deficiencies based on where they are appearing on the plant.

Epiphytic orchids have adapted to low nutrient environments – their only input is from the rain and any bits of tree debris from higher branches that falls on them. Tree bark is typically not that nutritious. Therefore, orchids generally do well even if they are deficient in nutrients, but even they have their limits.

Additionally, many orchids will induce flowering or other growth when an influx of nutrients happens upon them, like the beginning of the rainy season.

Certain elements are only absorbed at certain pHs, so it's important to keep your potting media fresh. Old media acidifies over time and turns sour for the plant, preventing the absorption of certain nutrients.

Water Quality and Fertilizer

If you have naturally soft water (water low in dissolved solids), then you generally should not have problems with salt buildup. Growers whose water comes from aquifers typically have a high amount of dissolved solids in their water. Generally, water with less than 525 ppm (parts per million) of total dissolved solids is considered tolerable for most orchids[2]. However, water with less than 175 ppm of total dissolved solids is truly ideal, as it mimics rainwater[3]. Salt buildup is a problem that can also affect growers that overfertilize but is typically from watering with hard water. In many areas, this is unavoidable, so some people treat their water. You must be very careful – some water softeners add sodium to water, which kills plants nearly instantly. They also add chlorine, which is falsely blamed for plant maladies. You may have heard of leaving water out to remove the chlorine, which may hurt plants. In fact, chlorine is an essential micronutrient that plants need to function, and is so abundant in nature, that we do not need to supplement it. Additionally, the concentration of chlorine in the water is not harmful to plants. If it's safe for you to drink, it's safe for the plants to drink!



Fertilizer minerals are all considered chemically to be salts, and salts they are! Therefore, it can be tricky to fertilize if you are working with “hard” water. If possible, you can add weak acids to keep the salts from building up, or you can flush your orchids every two weeks/month. It's also recommended to use rain or distilled water if your water is too hard.

What does mobility mean for plant nutrients?

Plant nutrients are generally broken down into whether or not they are mobile in the plant once consumed. When there are deficiencies, knowing where the deficiency is occurring can help with diagnostics. *Remember, plants will always prioritize new growth over rescuing old growth.* This is universal for all plants, and is a telltale for where the nutrients are being distributed.

For example, nitrogen (N), phosphorus (P), and potassium (K), are all mobile elements. *When there is a deficiency in a mobile nutrient, the plant will show symptoms in the old growth.* This is because the plant actively breaks down proteins and such in its old leaves and redistributes them in the newer growth.

For immobile elements such as calcium (Ca), when there is a deficiency, the plant will show symptoms in the new growth. This is because the plant has run out of building blocks, and can't free these nutrients from their older growths and can't redistribute them.

Macronutrients

Nitrogen – Is a mobile element and is responsible for protein synthesis, which leads to growth[5] [6].

- Interesting note: Excess nitrogen causes extra growth and a more robust plant. While there is some truth to excess nitrogen causing vegetative growth, the growers who claim that nitrogen only affects foliar growth is erroneous. Excess nitrogen causes growth of all parts of the plant, including flower, provided that the right flowering signals have been met for the plant[7].
- Nitrogen deficiency typically manifests as canary-yellowing and lack of robust growth in the plant. Sulfur deficiencies look identical to nitrogen deficiencies; for more information, see Sulfur.

Phosphorus – Is a mobile element, usually in the form of phosphate, and is essential to form new DNA. New cells need new DNA, and flowers do too to create the pollinia and ovaries. Therefore, Phosphorus is essential for flower production.

Phosphorus deficiency typically manifests as faded purple streaking along the edges of the leaves, and a loss of glossiness of the leaves.

Potassium – Is a mobile element and is a neutral salt when found in the form potassium chloride (KCl). Potassium salts aid in water regulation.

Interesting note: The “salt burn” experienced by orchids is really just potassium excess, which causes the leaf tips to turn black. Be careful! Certain fungi also create the same black tips. If you fertilize, and the new growth is free from black tips, then indeed it was a nitrogen deficiency. Otherwise, you will need to treat for fungal/pathogens.

Sulfur – Is a mostly mobile element which is used for the two essential amino acids, cysteine and methionine. Sulfur is critical for pathogen defense in plants.

Calcium – Is an immobile element that is essential in forming healthy plant cell walls and resisting pathogens[13]. Calcium is also used in many enzymes, allowing for a healthy plant metabolism.

Magnesium – Is a mobile element that is essential for photosynthesis. It is the element that fills in the center of the porphyrin ring of chlorophyll. Without magnesium, there can be no photosynthesis, and therefore, virtually no life.

Micronutrients are called such because they are essential, but only needed by the plant in minute quantities.

Iron/Copper – Iron and copper form the electron-receiving components of the photosynthetic machinery of the plant. They are essentially used by the plant in an electrochemical way to capture the sun’s energy to make carbohydrates (sugars).

Boron – Essential for many enzymes as well as proper cell formation. Lack of boron results in instant black death of all new growth.

All that said, I once visited an orchid greenhouse in Hayden that was filled with beautiful and healthy looking orchids and when I asked the owner what kind of fertilizer he used, he said “Oh - I really don’t fertilize my orchids, they seem to bloom and grow just fine without fertilizer”.

Using a TDS Meter to Determine Fertilizer Strength



We discussed using a TDS meter at the June SOS meeting to determine the quantity of fertilizer to add to water for the best results. Stevie said she always uses a TDS meter to determine how much fertilizer to add to her weekly fertilizer program. Jlm asked me to include more information about TDS meters in the Newsletter, so here's more:

A TDS (Total Dissolved Solids) or EC (Electrical Conductivity) meter helps ensure your orchid fertilizer mixtures are safe and effective. It takes the guesswork out of fertilizing by letting you measure the exact concentration of salts in your water and fertilizer solutions.

Why it matters: Orchids are naturally adapted to environments with low nutrient levels, meaning they are sensitive to fertilizer burn. High concentrations of dissolved salts in your water or fertilizer can damage their roots. TDS meters estimate the concentration of dissolved minerals in water in parts per million (ppm).

During Active Growth: When your orchid is actively growing, a general rule of thumb is to aim for a concentration of around 400 ppm (including your baseline water's ppm). **During Rest Periods:** When the plant is resting (such as in winter), it's safer to lower the fertilizer concentration to around 200 ppm.

The "Flush" Rule: Frequent fertilizing requires periodic flushing. If you rely heavily on fertilizers, Jim recommends periodically watering the orchid with plain, pure water to wash out excess built-up salts. Jim recommends flushing about once a month and to flush twice in the same day. Water heavily and then go back and water a second time. The first flush will loosen built-up salts and the second flush will remove them.

How to Use a TDS Meter:

Measure the baseline: Test your plain water before adding any fertilizer to establish your starting ppm. **Calculate your fertilizer addition:** Add the fertilizer to your water, mix thoroughly, and take a new reading. Subtract the baseline water's ppm from this new reading to determine exactly how much fertilizer you've added.

TDS meters are readily available for purchase on Amazon and can also be found at pet stores that have aquarium supplies. A good TDS meter can be purchased for \$10 - \$15.

Top rated brands on Amazon with more than 4 stars include:

- * Varify TDS meter for around \$10
- * MEXYBE TDS meter - also around \$10
- * Vivosun TDS meter for about \$15

Orchid Show & Tell



Wild, native coralroot close up
Photo Credit: Edwin Weber



Epidendrum NOID (from Botanica)
Grower: Ken Scott



June 13th Re-potting day. Re-potting this big Cattleya was a three-person job.



Mokara Nora Blue
Grower: Mem Weisbeck

Orchid Show & Tell



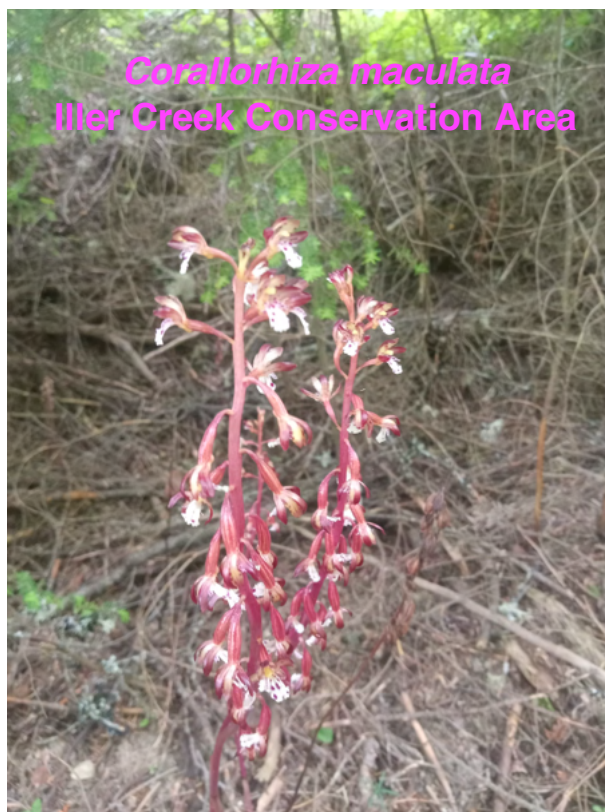
Vanda Pachera Delight
Grower: Mem Weisbeck



Brassia Rex
Grower: Mem Weisbeck



Dendrobium moschatum
Grower: Suzanne Sawyer

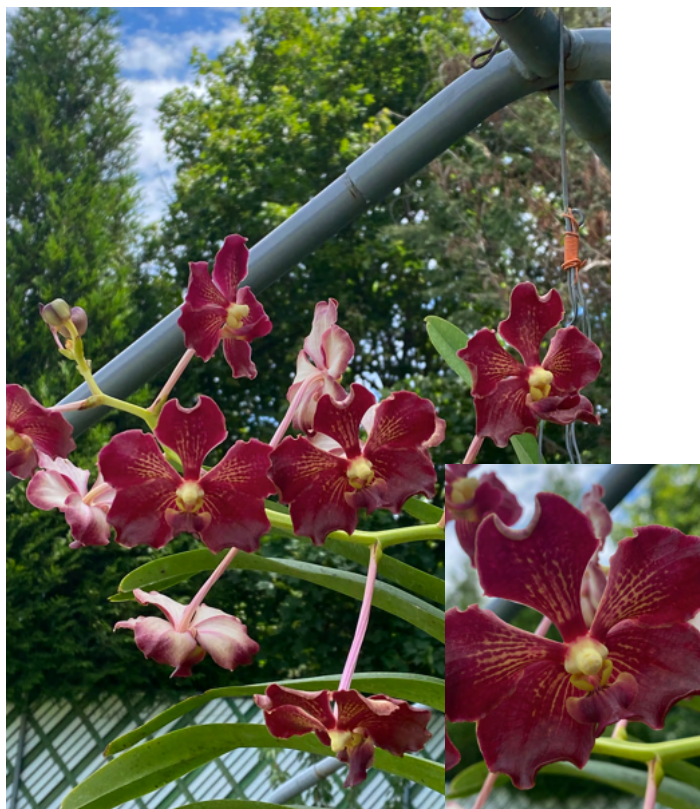


Native Coralroot Orchids
Photo Credit: Ken Scott

Orchid Show & Tell



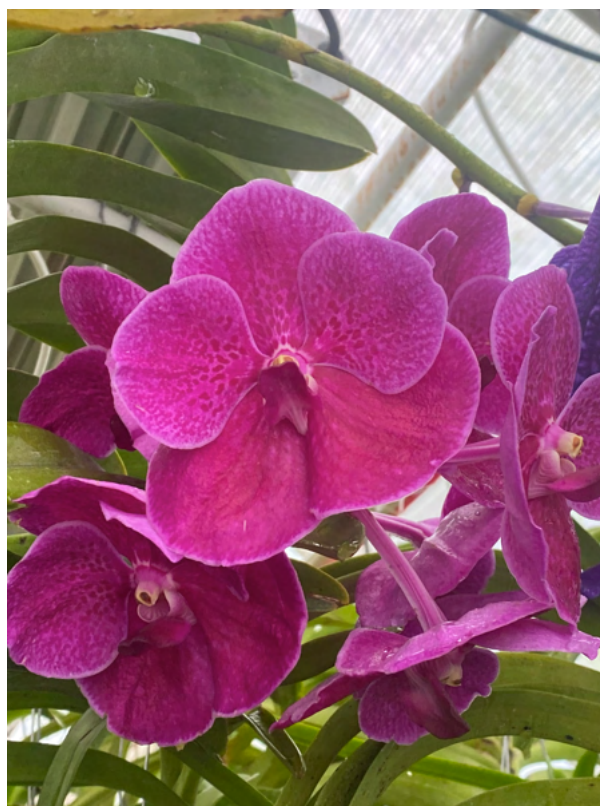
Wild, native coralroot close up
Photo Credit: Edwin Weber



Vanda Motes Hot Mama 'Mem'
Grower: Mem Weisbeck



Vanda Somsri Glory 'Blue'
Grower: Mem Weisbeck



Vanda Robert's Delight
Grower: Mem Weisbeck



Orchid of the Month

Grammatophyllum scriptum (Dwarf Form)

Every once in a while you purchase an orchid that exceeds your expectations. That is how I feel about my *Grammatophyllum scriptum* - dwarf form.

I had wanted to add a *Grammatophyllum* to my collection for several years, but most of them get so big, so fast, that I always decided to hold off. I did not want my greenhouse to become the *Little Shop of Horrors* with one giant plant taking over the entire space. Then I discovered a dwarf form of a *Grammatophyllum* species and I now have my first *Grammatophyllum* species - *Grammatophyllum scriptum* - dwarf form.

The standard *Gram. scriptum* is native to Southeast Asia and is one of the largest orchid species on the planet. The dwarf form also occurs in the wild in SE Asia and is a result of a random genetic mutation from a self-pollinated parent plant. The flowers on the dwarf form are about the size of a quarter and have almost the same color pattern as the standard plant. The only down side to the dwarf form is that the flower sepals are very tight, which does not allow the flower to open completely - they always look like they are about 90% open. The tight flower sepals are just part of the genetic mutation.

The up side is that it is common for this orchid to flower several times per year and they often produce multiple flower spikes. The flowers are long-lasting and have a mild, sweet and earthy fragrance. I have only had mine for about 5 months and this is the second time it has produced flowers.

They like ample water, bright light. and intermediate temperatures. I have mine potted in chunky bark mixed with some pumice and charcoal.



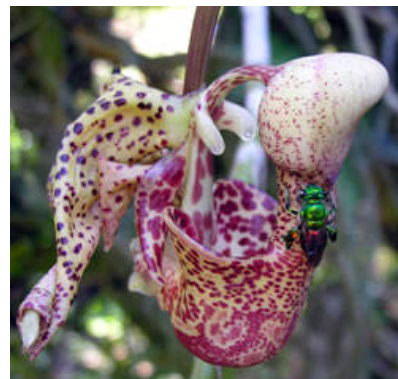
Orchid Trivia & Interesting Facts

Which came first the orchid or the orchid bee?

Source: *Smithsonian* magazine

When scientists delve into studies of the co-evolution of plants and their pollinators, they have something of a chicken/egg problem—which evolved first, the plant or its pollinator? Orchids and orchid bees are a classic example of this relationship. The flowers depend on the bees to pollinate them so they can reproduce and, in return, the bees get fragrance compounds they use during courtship displays (rather like cologne to attract the lady bees). And researchers had thought that they co-evolved, each species changing a bit, back and forth, over time.

But a new study in *Science* has found that the relationship isn't as equal as had been thought. The biologists reconstructed the complex evolutionary history of the plants and their pollinators, figuring out which bees pollinated which orchid species and analyzing the compounds collected by the bees. It seems that the orchids need the bees more than the bees need the flowers—the compounds produced by the orchids are only about 10 percent of the compounds collected by the bees. The bees collect far more of their “cologne” from other sources, such as tree resin, fungi and leaves.



And it was the bees that evolved first, the researchers found, at least 12 million years before the orchids. “The bees evolved much earlier and independently, which means the orchids appear to have been catching up,” says the study’s lead author, Santiago Ramirez, a post-doc at the University of California at Berkeley. And as the bees evolve new preferences for these chemical compounds, the orchids follow, evolving new compounds to lure back their bee pollinators. But this study is more than just an interesting look into the evolution of two groups of organisms. The researchers note that in the context of the current decline of bee populations worldwide, their research has disturbing implications for what that decline might mean for plants. “Many of these orchids don’t produce any other type of reward, such as nectar, that would attract other species of bee pollinators,” Ramirez notes. “If you lose one species of bee, you could lose three to four species of orchids.”