



Orchid Toolbox – What’s in Your Wallet?

by Sue Bottom, sbottom15@hotmail.com

My sainted Mother used to say that the sin isn't in making a mistake, it's making the same mistake twice. I've benefited from many of my mistakes and thought I'd share some of the handy tools and tricks I've learned to help grow healthy and happy orchids.



A water wand with a water breaker or Fogg It nozzle is great for watering orchids and the hose end sprayer is useful for cleaning up plants while repotting.

Hose End Systems. I use a water wand fit with a water breaker to manually water my orchids. The water breaker creates a soft shower. There is a handy off on switch to easily control watering. I switch out the water breaker for a Fogg It nozzle when watering vandas and mounted orchids. I use the heavy volume 4 gpm nozzle. I keep a hose end sprayer that has multiple settings, including shower, jet and flat. The shower setting is a nice soft spray. The flat setting can be used when you are blasting the sheath or scale of pseudobulbs. The jet setting works well when you want to blast old decaying potting mix out of a pot without doing too much damage to the roots.

Applying Fertilizer. I now use a Dosatron which is an automatic proportioner for fertilizing my plants, but at \$300 it is too pricy for most folks. For years I used a Hozon injector (around \$20) which siphons a concentrated fertilizer mixture through a rubber tube into the hose you use for watering so you can water and fertilize at the same time. It's simple to use, just get a 5 gallon bucket and make marks on the side at 1 gallon increments. Place it next to your hose bibb and drop the rubber hose on the siphonex into the 5 gallon bucket in which you'll make your fertilizer concentrate. Then mix up your fertilizer concentrate using the Hozon siphonex ratio of 16:1 (the Dramm siphon uses a 20:1 ratio). For 16 gallons of fertilizer, you would put in the suitable amount of fertilizer (say 4 tsp if mixing 1/4 tsp/gallon) and fill the bucket up with water to the 1 gallon mark. For 80 gallons of fertilizer, you would add a little over 3 oz or 3/8 of a cup of fertilizer (at 1/4 tsp/gallon and 6 tsp/oz) and fill the bucket up to the top with water. You have to be careful to minimize pressure drop for it to work



A Dosatron may be expensive but it is an effortless way to fertilize orchids with each watering.



A Hozon siphonex at about \$20 is a much more economical way to easily fertilize your orchids.

best so make sure your hose is less than 50 ft long (35 ft is better) and your hose is a larger diameter (5/8 inches is better) and you use a water breaker (like Dramm's 170 Water Breaker). And if you have any question about whether the siphonex is working properly, get a 1 cup (8 oz) and a 1 quart (32 oz) measuring cup. Fill the small cup up with 1/4 cup of water (2 oz) and drop the siphonex hose in it. Then run your hose to fill up the larger measuring cup. If the smaller cup containing 2 oz is empty by the time the larger 32 oz cup is filled, you'll know that your Hozon siphonex is dispensing at the proper 16:1 ratio.



Orchid Toolbox – What’s in Your Wallet?

by Sue Bottom, sbottom15@hotmail.com



An Ortho hose end sprayer can be used to spray a variety of chemicals as long as you remember your basic math skills.

Spraying Fertilizer and Chemicals. Now that you’ve refreshed your arithmetic skills, you’re ready for the Ortho Hose End sprayer that has a myriad of uses. You can spray concentrated or diluted chemicals and fertilizers easily with the sprayer remembering that the total volume you want to spray in gallons, divided by the top setting for dilution rate in tsp or oz/gallon equals the amount of oz you mix into the sprayer reservoir as measured on the side of the sprayer. That sounds more confusing than it is, here are some great applications.

Spray Fertilizer. – I often use the Ortho sprayer to fertilize vandas that are very heavy feeders. I want to use the highest settings so the application rate will be the most accurate, so I set the top dial to 8 oz/gal and fill up the reservoir to 32 oz with water. This means I’ll get 4 gallons of spray (32 ounces divided by 8 oz/gal) so I’ll add 4 tsp of fertilizer to the mix, if I want to fertilize at the rate of 1 tsp/gal.

Spray Fungicides or Pesticides – If you want to spray a single chemical at the recommended dilution rate, you would simply add the chemical to the reservoir and set the top dial to the dilution rate. So if you wanted to spray with pool algaecide (a cheaper form of Physan or Consan) for leaf spotting fungi, you want pour 10% pool algaecide into the sprayer and set the dilution rate to 2 tsp/gal. If you wanted to spray two compatible chemicals that each had different dilution rates, you could do that too. Say I was battling scale and wanted to spray a mixture of imidacloprid and Distance and say I know it will require 4 gallons of spray for me to spray my plants. The imidacloprid at a 1.47% concentration has a dilution rate of 6 tsp/gal, so I pour 24 tsp or 4 oz of the imidacloprid into the reservoir (6 tsp/gal times 4 gallons is 24 tsp which divided by 6 tsp/oz equals 4 oz). The Distance has a dilution rate of about 0.5 tsp/gal, so you’d add 2 tsp Distance to the reservoir (0.5 tsp/gal times 4 gallons is 2 tsp). Then you’ll want to use the highest top dial setting possible, that is 8 oz/gal, and fill up the reservoir with water to the 32 oz line (4 gallons times 8 oz/gal equals 32 oz). If you wanted to make 8 gallons of spray, using the maximum 32 oz of concentrate in the reservoir, your top dial setting would be 4 oz/gal (32 ounces divided by 4 oz/gal equals 8 gallons), and of course you would add enough chemicals to make 8 gallons of spray.

Bleach Spray to Disinfect – I periodically spray bleach under benches and walkways to disinfect them and remove algae. Typically you’d want a 10% solution, but the closest you can come with the Ortho sprayer is about 6% if you set the dilution dial to 8 oz/gallon (8 oz/gal divided by 128 oz/gal equals about 0.06 or 6%).



Orchid Toolbox – What’s in Your Wallet?

by Sue Bottom, sbottom15@hotmail.com

Disinfect Cutting Tools. Singled edged razor blades are often recommended for cutting off damaged leaves or old flower spikes, even for cutting plants apart during repotting. However, I enjoy the use of all 10 fingers so I use shears to make the tough cuts. I used to disinfect them between plants by dropping the shears into a supersaturated solution of TriSodium Phosphate or TSP, made by pouring more TSP into a jar than can be dissolved in water so there is some residual solid TSP in the jar once you add the water. Once the shears have sat for 30 seconds or so in the supersaturated solution you’re ready for your next cut. Then some bureaucrat decided that TSP should be reformulated with nonphosphates which do not have the same sterilization capacity, so if the box says no phosphates, don’t buy it because it will not disinfect your cutting tools. The best tool for disinfecting your cutting tools is a torch. Buy the one with the propylene (MAPP) gas in a yellow tank and spend the extra couple of bucks on the automatic igniter version. The fat boy tanks can be found at Fastenal. Sterilize your shears by flaming them after use for about 15 seconds on each side, remembering the hottest point of the flame is about an inch or so out at the end of the inner cone of the flame.



I used to use TSP to sterilize cutting tools but had difficulty finding the real TSP in stores so I switched over to a torch and am convinced it’s the best way to disinfect shears



I drench plants with a Banrot and seaweed mixture after repotting and the mortality rate among repotting plants has dropped to virtually nil.

Drench After Repotting. I have heard many people recommend that you not water your plant after repotting it so that the pathogens ever present in the environment are not drawn into the plant through the repotting wounds as well as to encourage the plant to send out new roots seeking water. That’s probably great advice that I am constitutionally incapable of following. Instead, I apply a precautionary fungicide drench of Banrot at 1 tsp/gal to protect the plant from water molds along with seaweed at 1 tsp/gal to encourage root growth. This math is pretty simple, get a 1 gallon jug and put 1 tsp each of Banrot and seaweed, fill it up to the top with water, and pour a drench through the pot.

Mounting Orchids. I’ve tried many ways of attaching an orchid to a mount while you are waiting for the roots to adhere, including nylon stockings, bell wire, cords, even staples. The difficulty always is having the connection remain tight enough that the roots don’t get damaged before they can attach. Enter Michael Polen of Art Stone Orchids in St. Petersburg who shared his tip for using cable ties to secure the orchid tightly to the mount. Once the orchid has adapted the tie can be cut away. It



Keep a variety of cable ties handy for mounting orchids.



Orchid Toolbox – What’s in Your Wallet?

by Sue Bottom, sbottom15@hotmail.com

works better than anything else I’ve tried.



Check out the handy spray bottles of alcohol and peroxide that Walgreen’s sells, they last and are refillable.

Household Chemicals. Isopropyl alcohol is great as a contact pesticide for scale and mealybugs or to help remove sooty mold. Hydrogen peroxide is a great bactericide for people and orchids. Walgreen’s sells both in little spray bottles that can be refilled and the sprayer continues to work for months after it is put in service unlike those quart spray bottles you buy and then throw out 2 weeks later because they no longer spray. A lot of people recommend dusting cinnamon on open wounds due to its antifungal qualities, but I believe in better living through chemicals so I would probably dust with Captan or Banrot rather than cinnamon if I felt the need to apply a fungicide.

Weed Removal. In days gone by I’ve used a hemostat for other things, but have found it is primo for removing ferns, oxalis and other weeds from the pot. It can get into places my fingers can’t. There are chemicals that contain Diuron that can also be used to help pots remain weedfree, just a pinch in the pot, but I don’t have the guts to add a herbicide to my orchid pots. I do spread Diuron under benches, under vandas (keep the roots trimmed 6 inches above the ground level) and in areas where I don’t want anything to grow, like between pavers, etc. It must have some systemic qualities because weeds don’t return for months after spreading it.



Diuron, the active ingredient in Karmex, is a very handy herbicide.

Please feel free to share any special tricks or tools you employ to grow your orchids, send an email to info@staugorchidsociety.org. We’ve learned lots from other orchid growers, hobbyist and professional, and suspect we’ll keep on listening and learning of new things to add to our toolbox.