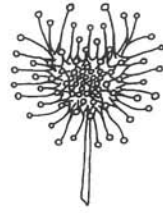


THE SAVAGE GARDEN

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Coco Peat Update

In the June issue of this year I wrote about coco peat as a possible substitute for *Sphagnum* peat in the soil recipes for carnivorous plants. Earlier this year I potted up a Venus Flytrap, *Drosera capensis*, *Drosera schizandra*, and a *Sarracenia rubra* into pure coco peat to see how they would fare. The results have been disappointing, although all the plants are still alive as I write this in late summer. The two *Drosera* are dwarfed and sickly looking. The Flytrap, too, appears pale and less vigorous compared to others in *Sphagnum* peat growing right beside it in my greenhouse. The *Sarracenia* does not look too bad, but it is still not as vibrant as others of its genus transplanted at the same time into *Sphagnum* peat.

The most noticeable difference between the two peats is that coco peat breaks down much faster than *Sphagnum* peat—at least when used pure. When kept wet-to-waterlogged it becomes a mushy, oozy, slimy soil upon which algae grow rather successfully. Its original fibrous, airy consistency is reduced to a glop of unoxygenated, root-suffocating, bacteria-ridden pulp! Perhaps it would fare better if mixed with abundant sand or perlite, which is what I usually do when using *Sphagnum* peat. But I have used pure *Sphagnum* peat as a soil medium without additives like sand, and it never broke down as rapidly as this coco stuff. It might still be useful as an additive to coarser soils such as those for *Nepenthes* or *Heliamphora*, but I doubt if I will experiment further. Yuck!

Miracid + Mexican *Pinguicula* = Death!

Acidic fertilizers such as Miracid (From the Miracle Grow people) is a wonderful fertilizer to use on acid soil loving plants like *Sarracenia*. When diluted to about half the manufacturer's recommended strength, it can be sprayed or sprinkled upon the foliage once or twice a month during the growing season with great success.

Many Mexican butterworts, however, are often found growing in alkaline soils, some even on pure gypsum. Whenever I have fertilized my Mexican *Pinguicula*, I have always used the epiphytic fertilizer Epiphytes Delight, or an orchid 30-10-10 fertilizer, with very good results.

This past summer I made a horrible mistake. I was using a sprinkle-can filled with a 50% solution of Miracid and was happily walking down the aisle of my greenhouse nursery, liberally drizzling the fertilizer over our *Sarracenia* display. I should have stopped where our butterwort collection begins on the bench, but no, I kept going without thinking and saturated all of our *Pinguicula* with Miracid! I realized what I had done, hesitated doubtfully for a moment, then shrugged it off and went about my merry way.

Within just a few days, the effect was devastating on many of the Mexican *Pinguicula*. Shriveled leaves, limp leaves, deformed leaves abounded. Many plants were black mush within a week. To remedy the situation, I took agricultural lime (made of pulverized oyster shells) and mixed about half a cup per gallon of water and saturated the survivors. They seem to be making a slow recovery, but we had to throw out many plants, such as *P. laueana*, *P. × 'Sethos'*, many *P. moranensis* varieties, and a hybrid that is going to be named 'John Rizzi' as a cultivar. A few plants

seemed not to be so badly affected, such as *P. esseriana* and *P. rotundiflora*, but these exceptions proved the rule since they are more closely related to northern acid-loving butterworts like *P. vulgaris* and *P. grandiflora*.

In fact, the acid-loving butterworts (such as *P. primuliflora*, *P. lusitanica*, and *P. longifolia*) that received the same dosage of Miracid thrived. I did not, of course, apply the lime to them.

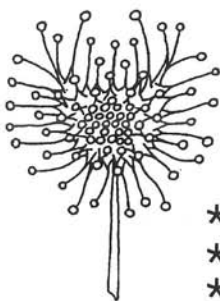
Temperate *Pinguicula* in a Warm Climate

There is something I neglected to mention in my book, *The Savage Garden*, about growing temperate, winter hibernacula-forming species of butterworts in greenhouses or warmer climates. Species such as *P. grandiflora*, *P. longiflora*, and *P. macroceras* form dormant hibernacula to survive cold weather. Apparently, at least in cultivation, they will also form hibernacula to survive excessive heat in the summer!

As an example, I have been growing various subspecies of *P. longifolia* (native to France and northern Spain) for almost a decade, since *Pinguicula* specialist Jürg Steiger gave specimens to me. These plants have grown quite well year after year, but on an unusual growing cycle in my California greenhouse. They come into growth early, during February and March. They flower during spring and produce lovely rosettes of leaves. But then, usually around mid-July, the plants go dormant again! They remain in hibernacula form through August, then most briefly return to growth in late September and October. By December and the start of winter, they are dormant again.

I suspect this occurs not because of photoperiod or air temperatures differences from their native habitats, but rather because the soil in their pots becomes excessively warm. In their native haunts, cool ground water trickles through the soil even when the air gets warm during the summer. In cultivation, the medium in the pots becomes so warm the plants go dormant, only to return to growth when the soil cools down.

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