

Byblis gigantea, 7 months old, grown from seed. Grown in full sun with many dead flies on the plant. Photo by Bob Dixon.

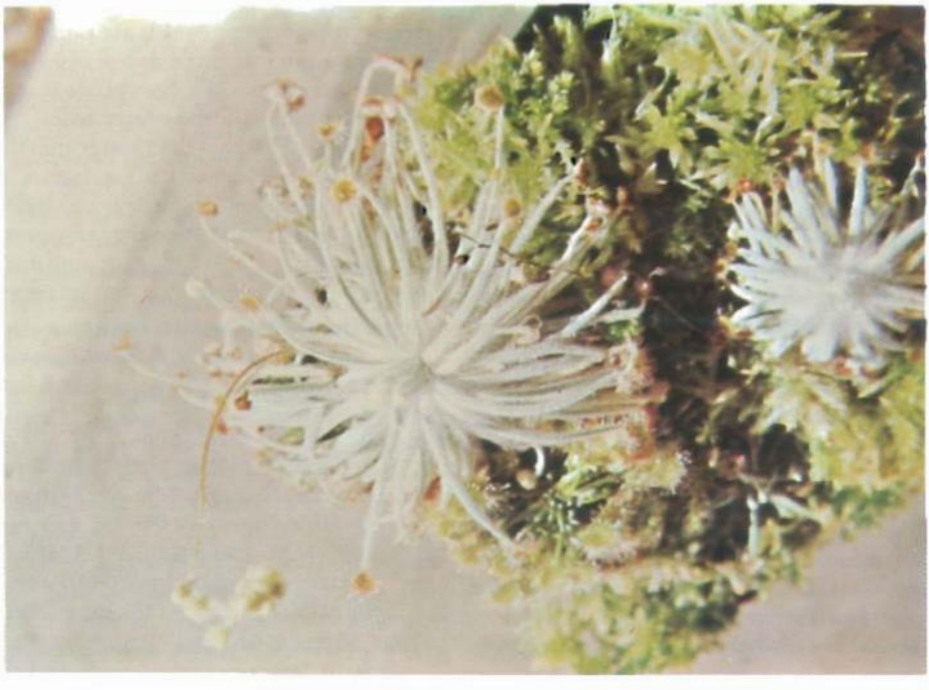


Exhibit of CPs set up by Cresco at a wholesale trade show in Holland.
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RAINBOW PLANT

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Byblis gigantea, the Rainbow Plant, is one of only 2 species contained within the genus *Byblis*. Both species occur naturally in Western Australia, *B. liniflora* grows in the north of the state, also in the Northern Territory and Queensland, whilst *B. gigantea* occurs nowhere else except the south west of Western Australia. Its main area of distribution is from Eneabba ca. 280 km north of Perth where it grows on heaths in dry, sandy to sandy, lateritic soils, to just south of Perth in sandy, winter wet areas. These are often referred to as swamps, but they are not boggy (there is no surface water around the plants), and they dry out rapidly in early summer.

In its natural habitat it can flower from early October through January. After seed production in January-February the plant goes into senescence. New growth starts again from the old woody plant or rootstock after the start of heavy, late autumn rains.

Perth's climate is classified as Mediterranean with long, hot, dry summers and cool, wet winters, with an average rainfall of 873 mm.

PROPAGATION

Plants can easily be raised by taking etiolated cuttings, that is, a shoot which has a portion a few centimetres long which has been below ground level. These cuttings strike readily in a few weeks. Unfortunately, this method of propagation is rather destructive to the parent plants which have few shoots; therefore, propagation by seed is recommended.

SEED

Each seed capsule produces numerous (often over 50), viable small black seed, which are deeply pitted with a firm but brittle seed coat. Although it is usually recommended to pour boiling water over the seed to stimulate germination, I find it germinates just as well without this treatment.

In Western Australia the seed can be sown straight after harvest, left dry, then watered in the autumn or sown in the autumn. I sow the seed on top of a mixture of 6 parts local, grey bush sand (a medium grained sand), 1 part local peat (a sedge type of peat) parts by bulk. The seed are then covered by a thin layer of blue metal dust (crushed granite) 2-3 mm grist; alternatively, seed can be sown on top of this covering as it will be washed between it.

In my garden I leave the seed pots out in the elements, i.e., full sun, wind and rain, and start watering the seed in April. I often have to water every day as the seed pots dry out quickly at this time of year. Germination takes about 4 weeks. Due to the number of frogs I have in my garden, (I assume it's the frogs which carry the seed about on their feet) the seedlings more often than not come up as thickly in adjacent seed pots. Germination rates are low, usually less than 10%. However, seed (when not treated with boiling water) remains viable for at least 3 years, so seed pots can be kept for 2 or 3 years for further germination.

Seedlings can be pricked out (transplanted) when only a few days old; this isolates each seedling and reduces the risk of damping off disease, to which they are very susceptible.

CULTIVATION

The initial growth rate is slow; however, in August the seedlings start to grow rapidly and can begin to flower in November, about 7 months after germination.

The potting on mix is the same as the seed sowing mix. I do not use fertiliser in this mix, but plants will respond well to a

light dressing of slow release fertiliser. Too much fertiliser encourages soft growth and tends to make the plants more susceptible to pests and diseases.

When possible, try to grow the plants in full sun in the open, but not in an exposed, windy position. This will result in a tougher plant with darker green foliage. In Western Australia, where we have our fair share of bush flies during the warmer months of the year, the plants are extremely well fed.

Watering in cultivation, I find, should be regular and throughout the year. In cooler climates, when growing plants undercover, it may be easier to dry the plants off during late summer without causing the plants to dehydrate too much. Avoid watering overhead as this can reduce the amount of mucilage present on the plant, which could also weaken the plant by reducing the numbers of insects caught and also increase the energy required to keep producing the mucilage.

In Western Australia the two main reasons for plant losses are keeping the plants too dry during the summer and waterlogging due to bad drainage.

The Influence of pH and Nutrient Availability on the Distribution of *Sarracenia purpurea* (Pitcher Plant) in Three Southeastern Wisconsin Fens.

by Teresa Ann Golembiewski

The University of Wisconsin-Milwaukee, 1984
Under the Supervision of Dr. Forest Stearns

ABSTRACT

Temperature, pH, alkalinity, total-N, total-P, K, Na, Ca and Mg levels were measured in groundwater during the summer and fall at the Pickerel Lake and Ottawa Lake calcareous fens and the Cedarburg Bog patterned fen. The two calcareous fens were similar in all physical and chemical parameters. Alkalinity, pH and Mg were significantly lower in the patterned fen when compared to the calcareous fens, while the other physical and chemical parameters were similar at all three sites.

Each of the three southeastern Wisconsin fens supported *Sarracenia purpurea* (pitcher plant). In each fen the physical and chemical characteristics of the groundwater of the areas that supported *S. purpurea* were compared with that of areas that did not support *S. purpurea*. The distribution of *S. purpurea* in these three wetlands was not correlated with the measured groundwater characteristics.

Eleocharis rostellata was dominant in the calcareous fens, while *Rhynchospera alba* was the dominant plant of the patterned fen. *S. purpurea* appeared to form no vascular plant associations, although it often occurred in association with various mosses. In the two calcareous fens, *S. purpurea* usually grew near spring seeps.

Sarracenia purpurea occurred in greater density in the calcareous fens compared to the patterned fen. Clones in the calcareous fens reached larger size and contained more leaves than clones at the patterned fen.

Sarracenia purpurea was cultivated hydroponically under controlled conditions at three levels each of N, P, and K, in a complete nutrient solution and in double distilled water. The absence of K depressed *S. purpurea* growth. Levels of other nutrients showed little effect during the first eight months of growth.