



Native Orchid Society of South Australia Inc.

Email: nossa.secretary@gmail.com

PO Box 565, Unley, SA 5061

Telephone: (08) 8294 8014

www.nossa.org.au

CULTURE OF FAST MULTIPLYING (FM) TERRESTRIAL ORCHIDS

FLAGBEARER SPECIES: *Pterostylis curta*

Others include *Chiloglottis*, *Corybas*, *Cyrtostylis*, *Diplodium*, *Microtis* most *Pterostylis* and some *Diuris*. Most FMs are Autumn or Winter flowering. Exceptions are *Diuris* and *Microtis*. FM are the most common terrestrial orchids to be seen at meetings and shows. Once seedlings are established they are no longer fungi dependent.

GROWTH HABIT: FMs are the easiest terrestrial's orchids to grow. They multiply by forming 2 – 5 tubers per plant each year. The annual growth cycle comprises 6 – 8 months as growing plants under cool (5 – 20 °C max, 0 – 14 °C min) moist conditions and 4 – 6 months as dormant tubers in hot (18 – 42 °C max, 12 – 30 °C min) dry conditions. New tubers are produced in winter/spring. FMs are colony types, ie they multiply annually and will spread out over time if planted in the ground. Each tuber sends up a shoot to the surface in autumn and leaves grow rapidly in late autumn/early winter as temperatures fall and the rains set in. FMs mainly flower in Autumn and Winter. *Diplodium* & *Pterostylis* leaves are usually the first to appear in March followed by *Diuris* and *Microtis* in April, and *Corybas* in June to July. In October/November the leaves go yellow, then brown and dry as the days get longer, hotter and drier in late spring.

LIGHT/SHADE: In Adelaide, they thrive in a shadehouse of 50% shadecloth. Some species prefer heavy shade, others full sunlight but most will adapt to a wide range of light intensity. Sun loving species (*Diuris* & *Microtis*) prefer a brighter location for good growth. *Corybas* like the shadiest corner. If the leaves and stems are weak and limp or if the leaf rosettes are drawn up to the light, then the shading is too dense and amount of light should be increased.

In very cold areas an unheated glasshouse may be required for frost protection although light frosts do not worry the majority of species.

AIR MOVEMENT/HUMIDITY: All species like good air movement and will not thrive in a stuffy humid atmosphere especially if temperatures are high.

WATERING: The soil should be kept moist at all times during active growth by watering gently if there is no rain. Hand watering is especially necessary in spring as soil in pots dries out more rapidly than in the garden. Watering must be done slowly so that the mat of needles on the surface of the pot is not disturbed. Slugs and snails love these plants and must be kept under control. Raising the pots off the ground on galvanised steel benching is very effective in controlling these pests.

After the leaves have turned yellow, let the pot dry out completely to dry up the old roots and tubers otherwise they may turn into a soggy mouldy mess and rot may destroy the adjacent new tubers.

REPOTTING: They grow better if repotted annually otherwise the plants crowd together around the rim of the pot. Repotting is normally done between November and January. The pots can be knocked out and the tubers examined without harm. For best results repot the tubers in half fresh soil mix. A suitable soil mix is 40% loam, 50% sand and 10% organic matter with a little blood and bone fertilizer added. (They will also grow in native potting mix.) A 5 mm sieve is a useful tool for separating tubers from soil. Replant the dormant tubers with the tops 20 mm deep. Cover the soil surface with a mulch of chopped sheoak needles (20 – 50 mm lengths). This prevents soil erosion and assists with aeration under the leaves.

SUMMER CARE: Keep the pots shaded and allow the pots to dry out between light waterings until mid-February when they should be set out in their growing positions and watered a little more often. The tubers of some species will rot if kept wet during the dormant period, others will produce plants prematurely which are then attacked by pests such as thrip and red spider mite and fungal diseases in the warm weather.

FERTILIZING: FMs are very hardy and will benefit from weak applications of folia feed in the **early** growth stages.

OTHER CULTURE NOTES:

- SLOW MULTIPLYING TERRESTRIALS
- FUNGUS DEPENDENT TERRESTRIAL

NB: IT IS ILLEGAL TO TAKE PLANTS FROM THE WILD

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