

the humidity, which has allowed moisture loving plants to grow well and the canopy has prevented frost from settling in the gully.

Many rainforest species are well established after only 5 years; however the natural dry sclerophyll vegetation is dying because of the increased water regime. The use of a mist spray in this situation has allowed species which would normally not grow in Canberra's low humidity and cold winters to be successfully grown. It also provides an unique and aesthetically beautiful collection of rainforest plants where one would least expect to find them.

HAND POLLINATING SOME PHILODENDRON CULTIVARS

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The inflorescence of these species is made up of the spathe and the spadix. Most cultivars are bisexual or dioecious and hence the spadix contains both pollen-producing and ovular sections. The male, pollen producing part of the spadix, is at the top end usually about 1/3 of the total, and the female or ovular section is partially protected in a cup at the base of the spadix. A third part, the function of which I am not sure, but appears to be to keep the male and female sections apart, is in the centre of the spadix and occupies a little more than a third of the total length.

In most cultivars, the flower opens fully in late evening, but does not release pollen or become receptive until later, (this time difference varies considerably). The female section next becomes receptive and this is indicated by the emission of a strong perfume and a pronounced rise in the temperature of the spadix. Within a very short period the spathe then begins to close around the ovular section, before any pollen is produced. This would appear to be nature's way of preventing self-pollination. The pollen is then released from the top end of the spadix in the form of a rather thick paste. In the case of selloum types, a large tablespoon-full can be collected. The spathe continues to close tightly around the spadix and unless you are there constantly you will miss collecting the pollen.

Having observed all of these processes, I thought that if I could prevent the flower from closing until I collected the pollen and pollinated the ovular area, the task would be much easier. I cut a number of pieces of wood, approximately 1/8" thick by 3/4" wide with lengths varying from 3 to 6", smoothed and rounded the edges to avoid damage to the flower. When the flower is fully open, I insert

these pieces of wood into the flower, behind the spadix and strategically place them so as to hold the flower as much as possible in the fully open position. This does work; it gives ample time to collect pollen, gives time to either self-pollinate that particular flower, or to introduce pollen collected from a previous flower. After removal from the spadix, the pollen may be diluted with clean water. I use two parts water to one part pollen, stir it well and brush it onto the ovular area with a small soft brush. The diluted pollen may be kept in a sealed glass jar in the refrigerator for several days.

PROPAGATION OF *PHORMIUM TENAX* 'VARIEGATA' AND *P. TENAX*'RUBRUM'

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The method we use is division of mature clumps but there are a few points to bear in mind. First, we plant the new divisions and they are left undisturbed for two seasons. New plantings and divisions are made in late spring as the weather begins to warm up a bit. We prefer this time to winter as the new plants start to grow without delay. The method of division is to cut each clump into single pieces using an axe, discarding flowering pieces which do not regrow.

Do not cut the leaves back on new divisions. The new plants are staked in the field to stop movement until established and fed at planting time. They usually lose quite a few leaves before growing away from the centre but after being cleaned up, after about 3 months they look quite reasonable.

When planting into containers we have saleable plants within about 6 mon and have found they too need staking if put straight outside but this can be avoided if they are placed in a shadehouse out of the wind. We are currently producing about 3,000 variegated flax a year by this method and a selection of red-leaf types selected for different colour and size variations.