

Worsleya rayneri

Terry C. Hatch

Joy Nurseries, Runciman Road, RD 2, Pukekohe

Worsleya rayneri was discovered in 1860 growing in the Organ Mountains of Brazil at an altitude of 1220 m. The huge leek-like bulbs with grey-green falcate leaves hang from acidic basalt cliffs, bathed in a constant mist from waterfalls. First described in 1863, it was many years before Arthington Worsley, following study of the plant in its natural habitat, succeeded in flowering *Worsleya* in his glasshouse in England. Also known as the blue amaryllis or empress of Brazil, *Worsleya* has remained rare in cultivation.

I purchased three of the D-shaped seeds of *Worsleya* 20 years ago for five pounds. Germination took place after only 4 weeks at 22°C. Having little information on the culture—except that they disliked lime—I used a peat and pumice mix for the three small plants. They were repotted every summer using long-term controlled-release fertilizers and given occasional applications of dried blood.

The evergreen growth slows in the cooler months and very little moisture is needed. As summer progresses they are watered copiously, growth being most rapid at the hottest time of the year.

After a number of years the plants had grown too large for buckets and were planted out into a protected bed of bark and pumice. Finally, in its ninth year, one bulb flowered. In January (mid-summer) a large bulge moved rapidly upwards from the base of the plant and after two weeks a soft green bud appeared. Within three days this had elongated 30 cm beyond the leaves and the flower buds opened over the next two days. The flowers were a beautiful lilac blue.

No seed was set from this first flower spike which was not surprising as *Worsleya* is believed to be self-sterile. However, the next year two plants flowered (4-9 flowers per stem) and seed was set following hand pollination. Three four-valved capsules set which took 15 weeks to ripen. In my group of mature plants I now have one which sets seed following self-pollination though a number of the resulting seedlings lack chlorophyll and die a few weeks after germination.

The only pests appear to be red spider mite and mealy bug, but these are minor problems. The greater bulb fly (*Merodon equestris*) can eat the growing centre of the bulb. When this happens a number of small bulbs arise from the basal plate. These can readily be used for propagation of new plants.