A FRUITING *CORDYLINE INDIVISA* IN A CHRISTCHURCH GARDEN

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About 1975 I rescued a 30 cm high young *Cordyline indivisa* plant from disturbed ground alongside the road to the telecommunications facility on Sewell Peak, Southern Paparoa Range, Westland. Brought back to Christchurch and planted in the coolest, dampest part of our rather dry garden, in Avonhead, near a *Dicksonia squarrosa,* camellias and rhododendrons, and shaded by a growing pin oak, but exposed to side-light, this little plant grew well. By the late 1980s it was a handsome specimen, more than 2 m high, with leaves about 14 cm wide at their broadest and about a metre long, with lovely orange midribs. In the summers of 1988-89, 89-90 and 90-91 it flowered, in the last year with two pendant, paniculate inflorescences about 40 cm long. In late autumn many hundreds of dull purple fruit (each containing many seeds, up to 15) ripened. Unfortunately in the following summer the plant died, for no apparent reason.

I decided to try to germinate some seeds, without much hope of success, as other *Cordyline* species are known to require cross-pollination (*C. kaspar,* Beever 1981; *C. pumilio* Beever, 1983). In all, 200 apparently full seeds were tested, 50 in each of four petri dishes, on filter paper, kept continually wet. The dishes were placed on a bench in an unheated, partially-shaded glasshouse at the Plant and Microbial Sciences garden area at the University of Canterbury, Ilam. They were exposed to maximum available light, with extreme minimum temperatures of -4°C and maximum 32°C during the germination period. Beginning a month after the test started (3-6-91), continuing slowly through the winter and ending by mid October 1991 (and much to my surprise) most seeds germinated (total success 88%). I pricked the seedlings out into small trays of soil, and ultimately about 30 were planted out into PB4 planter bags. These young plants grew slowly, kept in a shadehouse. By now they are about the same size as the original parent when it was first collected. They would be bigger if they had been cossetted more. They have come through some very dry conditions well and I admire their tenacity.

It appears that *C. indivisa* must be self-fertile, as it is extremely unlikely that pollen from any other individual of the same species could have been involved with the seed set described above. This also appears to apply to *C. banksii.* I have germinated its seeds from a solitary parent of unknown origin in the gardens at the University of Canterbury. Incidentally, the fruit of this species are bi-coloured - dark purple above and white below. Those of *C. australis* are usually white, but I have seen individuals in Westland with white fruit, speckled purple.

The young *C. indivisa* and *C. banksii* plants which have grown up from the germination tests do not appear to be hybrids that might result from crosses with *C. australis.* Flowering plants of the latter were not far distant from the locations of the parent *C. indivisa* and *C. banksii* plants, but flowered a little earlier than they did.

References

Beever, R.E. 1981. Self-incompatibility in *Cordyline kaspar* (Agavaceae). *New Zealand Journal of Botany 19:* 13-16.

Beever, R.E. 1983. Self-incompatibility in *Cordyline pumilio* (Agavaceae). *New Zealand Journal of Botany 21:* 93-95.