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Grevillea mesnerii, a botanical firecracker from northern New Caledonia. Photo R. Lucas.

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Upper: *Nelumbo nucifera* 'Alba Grandiflora'. Detail of flowers and foliage. Note the urn-shaped fruit containing a number of hard-walled nuts. Photo R. Lucas.

Lower: Close-up of the flower of *Nelumbo nucifera* 'Alba Grandiflora' showing the spirally arranged petals and numerous stamens. Photo Neil Price.

Cordyline australis 'Karo Kiri' (Asteliaceae): a New Dwarf Cabbage Tree Cultivar from New Zealand

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Introduction

The New Zealand species of *Cordyline* have a long history of cultivation, and at least 38 cultivar names are recorded (Heenan, 1991a). The cultivars are mostly coloured foliage variants of *C. australis*, intraspecific hybrids between distinct *C. australis* cultivars, or interspecific hybrids between *C. australis* and other species. Apart from *C. australis* 'Karo Kiri', only one other cultivar, *C. 'Ti Tawhiti'*, can possibly be regarded as being a mutant growth form (Harris and Heenan, 1991). Few of the *Cordyline* cultivars selected and introduced to horticulture have been formally named and described, and consequently there have been many problems with cultivar nomenclature and taxonomy (Heenan, 1991a, b).

C. australis 'Karo Kiri' is a valuable addition to the range of cultivars available as it provides a distinct and unique growth form that is not known in other *Cordyline* species, hybrids, or cultivars. This cultivar is regarded as originating from *C. australis*, and it indicates the type of variation that can occur through natural mutation.

Taxonomy

Cordyline australis (Forst. f.) Engl.
'Karo Kiri' cult. nov.

Description (Fig. 1, 2): Shrub with a single leafy trunk; up to 0.6 m tall after 1.5 years and 1.9 m after 9 years. Trunk diameter 18 mm at 1.5 years and 45 mm at 9 years; multiple trunking often results from pruning or stem damage. Bark thin and only slightly corky. Leaves densely placed, overlapping, stiff, patent, but drooping slightly with age, lanceolate and narrow-lanceolate to almost linear, striate, semi-glossy, green (137a*), 120–170 × 10–15 mm. Midrib indistinct on the adaxial surface; distinct and raised on the abaxial surface, narrowing to the leaf apex, 2.5–4 mm wide at the leaf base, 5–10 mm wide on the petiole, yellow-green (145a). Petiole appressed to the stem and becoming nar-

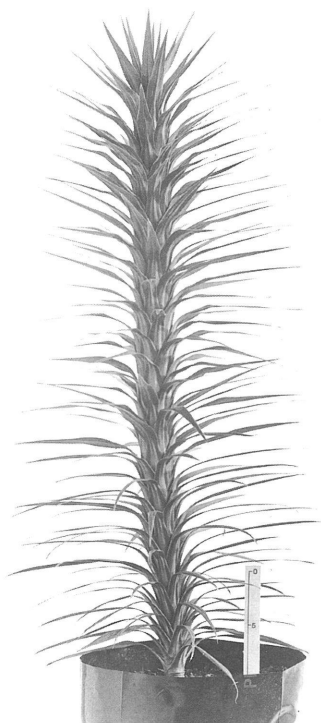


Fig. 1. A typical single-stemmed plant of *Cordyline australis* 'Karo Kiri'.



Fig. 2. Branched plant of *Cordyline australis* 'Karo Kiri', induced by cutting of the primary stem.

row near the lamina; 40–5 mm long, 24–28 mm wide at the proximal end, 6–8 mm wide at the distal end; adaxial surface white at the proximal end, green (137a) at the distal end; abaxial surface green (137a); margin membranous, white. Inflorescence not known.

Chromosome number (Fig. 3): $2n = 38$ (M. I. Dawson, pers. comm., 1994), is in agreement with the chromosome numbers recorded for the New Zealand species of *Cordyline* (Hair and Beuzenberg, 1968). Voucher CHR 471152.

Origin and history: Raised from *C. australis* seed collected from an unrecorded locality in the North Island by Mr Trevor Bayliss in 1983. The seed was sown at Bayliss Nurseries, Christchurch, in 1983 and upon the growth of the seedlings it was observed that this plant differed from the others. On 27 December 1985 it was planted in a shrubbery at Bayliss Nurseries, and since 3 May 1991 plants have been evaluated by Landcare Research at Lincoln (accession 330/91).

Etymology: The cultivar epithet 'Karo' is an acronym of "known and recorded origin", and refers to plants of which Manaaki Whenua - Landcare Research has been involved in the breeding, trialling, and/or selection. This continues a procedure initiated by the Botany Institute, DSIR (Heenan, 1992). The epithet 'Kiri' is a Maori woman's name, and is also a Maori word for bark (Williams, 1957), which in this cultivar is thin and only slightly corky in comparison to *C. australis*.

Original standard specimen: Cultivated at the Landcare Research experimental nursery, Lincoln, New Zealand, P. B. Heenan, March 1994, CHR 471152.

Phenology: Not known to have flowered. Dwarf mutant forms often have an inability to initiate inflorescences (e.g., *Cordyline* 'Ti Tawhiti': Harris and Heenan, 1991).

Ornamental features: The aesthetic qualities of *C. 'Karo Kiri'* are its erect monopodial growth; the short, rigid, green, densely placed, and horizontally held leaves; the distinctive yellow green midrib

* Royal Horticultural Society Colour Chart in association with the Flower Council of Holland. The Royal Horticultural Society, London. Flower Council of Holland, Leiden.

on the back of the leaf and petiole; the symmetrical head of foliage; and a tidy, groomed appearance. This cultivar is ideal for smaller suburban gardens where space is limited, or as an indoor or patio pot plant. It has been successfully grown in a glasshouse environment for three years, and it is particularly amenable to indoor pot culture. As a residential indoor plant it has been grown near a south-facing window of a hallway for over one year, retaining a healthy appearance and typical growth habit, and the leaves and trunk have not become excessively elongated.

The original plant, now nine years old, is still being successfully cultivated outdoors in Christchurch. It has been subjected to seasonal extremes of weather, including summer droughts, hot and dry northwesterly winds, winter frosts and snow, and cold southerly winds, without suffering any damage. Cabbage tree moth (*Epiphryne verriculata*) damage has been recorded from plants cultivated outdoors, but no other pests and diseases have been observed.

Notes on recognition: The short, narrow, horizontal leaves immediately distinguish this cultivar from the other New Zealand *Cordyline* species, hybrids, and cultivars, which have much longer and strap-like leaves (for descriptions see Moore and Edgar, 1970 and Metcalf, 1987). *C. 'Ti Tawhiti'* is most similar to *C. 'Karo Kiri'* in that it usually maintains a dwarf growth habit, but this cultivar has leaves more typical of *C. australis* and it forms a bushy shrub because of a suckering habit (Harris and Heenan, 1991). Putative *C. pumilio*



Fig. 3. *Cordyline australis* 'Karo Kiri' $2n = 38$ ($\times 3000$). Photo M. I. Dawson.

hybrids, also with long and strap-like leaves, have been described by Moore (1975).

Plant variety rights: Application for protection was made by Bayliss Nurseries Ltd on 11 January 1993 (Plant Variety Rights Journal 53: 3 [1993]), and protection was granted on 20 July 1993 (Plant Variety Rights Journal 55: 8 [1993]).

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