

JOURNAL of the ADELAIDE BOTANIC GARDENS

AN OPEN ACCESS JOURNAL FOR AUSTRALIAN SYSTEMATIC BOTANY

flora.sa.gov.au/jabg

Published by the

STATE HERBARIUM OF SOUTH AUSTRALIA

on behalf of the

BOARD OF THE BOTANIC GARDENS AND STATE HERBARIUM

© Board of the Botanic Gardens and State Herbarium,
Adelaide, South Australia

© Department of Environment, Water and Natural Resources,
Government of South Australia

All rights reserved

State Herbarium of South Australia
PO Box 2732
Kent Town SA 5071
Australia



Board of the
Botanic Gardens and
State Herbarium



A NEW CULTIVAR — *CUPRESSUS LUSITANICA* MILL. CV. ADELAIDE GOLD

T.R.N. Lothian

Botanic Gardens, North Terrace, Adelaide, South Australia 5000

Abstract

In 1960 a seedling of *Cupressus lusitanica* Mill. (Mexican Cypress) was noted with a distinct golden foliage colour. Following planting trials during which the constancy and distinctiveness of the form was assessed, it has been named *C. lusitanica* cv. Adelaide Gold.

Introduction

Cupressus lusitanica Mill. (Mexican Cypress or Cedar of Goa), was introduced into cultivation sometime during the 16th Century, and has been grown in England since 1683 when Bishop Compton introduced it from Portugal. Despite its colloquial names it is not a native of either Portugal or Goa in western India. It was probably introduced into Portugal from Mexico, its native country, by seamen or missionaries returning from that country. It is a graceful tree, with brown peeling bark, somewhat conical in shape, with spreading and slightly pendulous branchlets, to 30m in height, and having glaucous or greyish-green foliage and glaucous cones with pointed bosses.

No date for the introduction of *C. lusitanica* into Australia is known. George Francis (first Director of the Adelaide Botanic Garden) does not list it in his 1859 'Catalogue of the Plants under cultivation in the Government Botanic Garden, Adelaide', but Dr Richard Schomburgk (second Director of the Adelaide Botanic Garden) records both var. *benthamii* and cv. *Knightsiana* in his 1878 'Catalogue'. W.R. Guilfoyle in 1883 records it for Melbourne Botanic Garden as "*glauca* syn. *C. lusitanica*", while Walter Hill lists it in 1875 in his 'Catalogue of Plants in Queensland Botanic Garden'.

An examination of the literature reveals that while *Cupressus lusitanica* has produced several glaucous and distinctly blue forms which have been described and known for many years, no golden colour break has been previously recorded.

History

During the period when Mr Colin Small was Superintendent of Parks to the City of Enfield, Adelaide, he raised many hundreds of plants and introduced new species to parks and street plantings. In 1960 he obtained from the late Mr Fred Couzens, Senior Gardener, Waite Agricultural Research Institute, seed of *Cupressus lusitanica*, which was sown. Amongst the resultant 50 or so seedlings was one with distinctive yellow foliage. The plant was isolated and observed to see if it retained its golden colour. The colouring was not only stable but the plant grew vigorously and in 1963-64, was planted out in the recently developed and landscaped western parkland area of Adelaide subsequently named Bonython Park.

This park has a limestone marl subsoil beneath approximately 30 cm of red clay. It was used as a rubbish dump for many years but neither this nor the effects of a windy site and possible fumes from a local gas plant effected growth of the *Cupressus*. Because of its attractive colouring, vigorous growth, tolerance to alkaline soil and bright sun-light, it was propagated from cuttings which readily struck. Plants were subsequently placed in Angus Gardens on the north side of the River Torrens where the soil is a good loam. Other plantings were made in the Women's Memorial Gardens with 30 cm of soil overlying white clay and limestone, and on the southern bank of the River Torrens immediately west of the Port Road Bridge. This last site was reclaimed with filling of various types including boiler ash and general rubbish and has a fully exposed northerly aspect.



Fig. 1. *Cupressus lusitanica* cv. Adelaide Gold original plant (1977), 6.5 m high, 3 m spread; north side of boat pool, Bonython Park, Adelaide, South Australia. Photograph by T.R.N. Lothian.

tree has now been removed the new form differs only in the foliage colour from *C. lusitanica*. None of the coloured trees has produced cones despite their age, in contrast to golden and yellow forms of *Cupressus macrocarpa* Hartweg which usually produce the typically large cones 4-6 years after planting.

Another species with a yellow form is *C. glabra* Sudw. "Smooth Arizonan Cypress". This is a small to medium tree, with dense ascending branches, red bark and greyish green resin speckled foliage. *Cupressus glabra* cv. Aurea is described as a broadly conical tree with suffused yellow foliage: according to Hillier (1974) it "originated in Australia". However, Harrison (1974) states "a most attractive neatly erect growing golden foliaged cultivar recently introduced from the U.S.A. . . .", but Lord (1967) does not mention this form. On foliage and growth form it should be easily separated from the new cultivar described here.

Although there have been several glaucous forms named no yellow foliaged form of *C. lusitanica* has been described. Bean (1970) mentions the naturally occurring glaucous forms and "others with yellowish leaves . . . found in the wild". No yellow forms have been previously recorded or named in Australia.

The yellow form of *C. lusitanica* is now being produced in commercial quantities and a name is therefore necessary. In consultation with Mr V. Ellis, Director of the Parks, Gardens and Recreation Department, City of Adelaide and Mr Colin Small, the name 'Adelaide Gold' is proposed for this cultivar as follows:

The original tree is now about 6.5 m high, 3 m broad with a somewhat truncated conical shape and the trunk clothed to the base with branches which are slightly ascending, (see Fig. 1). In the tree in the Women's Memorial Garden, branches are more horizontal. The colour has remained a clear yellow to gold, although on the shaded side of the tree the colour is more suffused with green. The plant in the Women's Memorial Gardens, in a shaded and sheltered position, also lacks bright yellow colouring of the foliage. This plant has grown about 9 m in nine years, is broadly conical in shape, and is 3 m in diameter with an unbranched trunk 20 cm in diameter at chest height.

Observations made over the years have confirmed the usefulness of this colour form as a desirable park tree having rapid growth, tolerance to alkaline soils, and resistance to bright sunlight. Its resistance to foliage burn should make it a suitable tub specimen for placing on patios, terraces or in formal plantings.

Taxonomy

An examination of the habit and vegetative characters of the colour form shows a strong similarity with that of *C. lusitanica* and although the original seed

Cupressus lusitanica Mill. cv. Adelaide Gold

Growth habit and foliage morphology similar to *C. lusitanica* but foliage and branchlets near growing points golden yellow to clear bright yellow in colour, tips of shoots — yellow/green 154A-D; general colour yellow group 8A-D, (R.H.S. Colour Chart (1966).) Cones unknown.

Holotype. North of boat pool Bonython Park, Adelaide, *T.R.N. Lothian s.n.* 8/8/77 (AD Herb. Pl. Cult. 7101).

Acknowledgements

Thanks and appreciation are recorded for the constructive criticisms received from Dr J.P. Jessop, Dr B. Morley and Mr A. Mitchell, Forestry Commission, Alice Holt, England.

References

- Bailey, L. H. (1923). "The Cultivated Evergreens". (Macmillan: London.)
(1933). "The Cultivated Conifers in North America". (Macmillan: New York.)
- Bean, W. J. (1970). "Trees and Shrubs Hardy in the British Isles", ed. viii, (J. Murray: London.)
- Chittenden, F. J. (1932). "Conifers in Cultivation: The report of the Conifer Conference . . . 1931". (Royal Horticultural Society: London.)
(1951). "Dictionary of Gardening". (Clarendon Press: Oxford).
- Dallimore, W. (1935). in *Bot. Mag.* t.9434.
- Dallimore, W. & Jackson, A. B. (1966). "A Handbook of Coniferae and Ginkgoaceae", ed. iv. (Arnold: London.)
- Francis, G. W. (1859). "Catalogue of the Plants under cultivation in the Government Botanic Garden, Adelaide, South Australia". (Government Printer: Adelaide.)
- Guilfoyle, W. R. (1883). "Catalogue of Plants under cultivation in the Melbourne Botanic Gardens . . .". (Government Printer: Melbourne.)
- Harrison, R. E. (1974). "Handbook of Trees and Shrubs for the Southern Hemisphere", ed. v. (A.H. & A.W. Reed: New Zealand.)
- Hill, W. (1875). "Catalogue of the plants in the Queensland Botanic Gardens". (James C. Beal, Government Printer: Brisbane.)
- Hillier, H. (1974). "Hillier's Manual of Trees and Shrubs". (David and Charles: Newton Abbot.)
- Lord, E. E. (1967). "Shrubs and trees for Australian Gardens", ed. iv. (Lothian: Melbourne.)
- Loudon, J. C. (1838). "Arboretum et Fruticetum Britannicum". (Longman: London.)
- Schomburgk, R. (1878). "Catalogue of the Plants under cultivation in the Government Botanic Garden, Adelaide, South Australia". (Government Printer: Adelaide.)
- Standley, P. C. (1920). Trees and Shrubs of Mexico. *Contr. U.S. Natl. Herb.* 23(1):63.

