Anadenanthera macrocarpa (Benth.) Brenan[1/]

SYNONYMS

Acacia grata Wild. (1809)

Adenanthera colubrina (Vell.) Brenan var. *cebil* (Gris.) Alts.

Piptadenia macrocarpa Benth. (1842)

Piptadenia microphylla Benth. (1842)

FAMILY

Leguminosae subfam. Mimosoideae

VERNACULAR NAME

Angico-vermelho, angico, angico-bravo, angico-preto, angico rajado, cambuí-ferro, guarapiraca, angico do campo, arapiraca, curupahi, angico castanho.

BOTANICAL DESCRIPTION

General

Tree with a crooked or straight trunk sometimes reaching heights above 15 m, a 30 to 50 cm diameter. Angular branching at the top of the crown; lacking thorns in the adult phase.

Inflorescence

Flowers in a globose capitulum, clustered and axillary flowers small, whitish in colour, with a 1-2 mm tubiform calyx with a serrate margin; corolla flat, two times larger than calyx. Flowering takes place from August to December, in trees of 4 to 5 years of age.

1/Based on the work of I.E.Pires and C.E.S.Nascimento, EMBRAPA/CPATSA, P.O.Box 23, Petrolina, PE, Brazil.

Fruit

A flat pod 32 cm long; brownish-yellow in colour, with a rough, wrinkled surface with small out-growths and few veins; 15 to 30 cm long by 2 to 3 cm wide.

Foliage

With up to 30 pairs of pinnae measuring from 4 to 8 cm, folioles in 50 to 60 pairs; opposite, sessile; membranaceous, lance-shaped, rounded and asymmetrical at the base, with a well pronounced midrib. Leaflets measure approximately 3 to 6 mm in length and 1 to 2 mm in width.

Bark

Greyish in colour, smooth, sometimes presenting small wrinkles or lengthwise fissures, with few thorns. When young, it has a thickness of about 2 to 5 mm.

WOOD PROPERTIES AND PRODUCTS

A chestnut-yellow colour, becoming a dark-red with distinguishable growth rings; yellow or rose sapwood, that is easily distinguished from the heartwood. It is a heavy hardwood (specific gravity 1.07), which is resistant to deterioration. The wood is used for construction, pillars, posts, fence posts, carpentry, beams, rafters, tile blocks, fuel, charcoal and other purposes.

Other Uses

Bark is used in the leather industry due to its high tannin content, up to 32%.

NATURAL DISTRIBUTION

This species occurs from the state of Marnhão to the state of São Paulo, including the "caatinga" in the Northeastern region, and the "cerrados" and the dry forest of Central Brazil. It is also found in Northern Argentina, Peru, Bolivia and Paraguay.

CLIMATE

Although widely distributed and found in the most diverse climatic conditions, from dry sub humid tropical to arid tropical, this tree prefers dry climates.

SOILS

It thrives best in deep soils. In the "caatinga" it is normally found on deep tableland soils and alluvials, and does not withstand excessively humid conditions.

HABITAT

Can be found isolated as well as along with other species, sometimes in dense and uniform formations. Generally in low mountain tropical forest of the Atlantic Coast, while in the Northeast it prefers the borders of streams and creeks.

SEED HANDLING

To obtain healthy seeds with good germination, the fruits must be collected when physiologically mature and before falling. In the Northeastern Brazil, physiological ripening is reached approximately 220

days after fruit setting begins. Storage in open conditions as well as in cold chambers provides an average germination above 80% after 5 months, independent of the type of packaging used.

The seeds of this species do not present dormancy problems, and will germinate without treatment within a period of 10 days. One kg may contain from 11000 to 17000 seeds.

SILVICULTURE

The cultivation of this species for commercial purposes is not common. However, based on the existing experiments, it is possible to establish pure stands. At 6 years of age, the stand renders wood for fence posts, fuel and charcoal. Studies in the Northeastern region, showed high survival and height for the species, under the semi-arid conditions of this area.

STATUS

The species is suffering a slow decline.

PROTECTIVE MEASURES TAKEN AND RECOMMENDED

No measures have yet been taken, neither for ex situ nor in situ conservation to preserve the original genetic pool. The studies underway on this species are limited to pure stands. Studies of the reproductive system and establishment of base populations is recommended, to preserve the genetic variation and to provide reproductive material.

SELECTED BIBLIOGRAPHY

Braga, R. 1976 — Plantas do nordeste, especialmente do Ceará. 3. ed. Mossoró, Escola Superior de Agricultura. 540 p.

Brune, A. 1975 — Preservação das reservas genéticas de árvores nativas brasileiras. Brasil florestal, Rio de Janeiro, (24): 19-21.

Brune, A. 1981 — Implantação de populacões base de espécies florestais. Documentos. EMBRAPA/URPFCS, Curitiba: 1-9.

Corrêa, M.P. 1926 — Dicionário das plantas úteis do Brasil e das exóticas cultivas. Rio de Janeiro, Serviço de Informaçao Agricola, v.1. p. 127, 326.

FAO 1986 — Some medicinal forest plants of Africa and Latin America. FAO Forestry Paper 67. Rome.

Golfari, L.; Caser, R.L. & Moura, V.P.G. 1978 — Zoneamento ecológico esquemático para reflorestamento no Brasil. Série técnica. PRODEPEF, Brasilia, (11) : 1-66.

Lima, D. de A. s.d. — Contribution to the study of the flora of Pernambuco, Brazil. New York. 154p. (Tese - Mestrado - University of New York).

Lima, P.C.F.; Souza, S.M. de & Drumond, M.A. 1982 — Competição de espécies florestais nativas em Petrolina - PE. Silvicultura em São Paulo, São Paulo, 16A (parte): 1139-48.

Rizzini, C.T. 1971 — Árvores e madeiras úteis do Brasil: manual de dendrologia brasileira. Sao Paulo, Edgard Blücher. 294 p.

Silva, H.O. da et alii 1980 — Comportamento de essências florestais nas regiões árida e semi-árida do nordeste (resultados preliminares). Documentos. EMBRAPA/DID, Brasília: 1-25.

Souza, S.M. de 1983 — Curso sobre produção de sementes e mudas. Petrolina, EMBRAPA/CAPTSA, 3 - 14 outubro. 27 p.

Souza, S.M. de; Pires, I.E. & Lima, P.C.F. 1980 — Influência da embalagem e condições de armazenamento na longevidade de sementes florestais. Boletim de pesquisa. EMBRAPA. Petrolina, (2): 15-24.

Tigre, C.B. 1976 — Estudos de silvicultura especializada do nordeste. Mossoró. Escola Superior de Agricultura. 176 p.

Vasconcelos Sobrinho, J. 1970 — As regiões naturais do nordeste, o meio e a civilização. Recife, Conselho do Desenvolvimento de Pernambuco. 441 p.