

**GAIE, W. & J. FLÉMAL:" LA CULTURE DU CAFÉIER ARABE
AU BURUNDI."**

**ISABU/AGCD- Publications du service agricole, Place du Champs de
Mars 5, b 57, 1050 Bruxelles, 198pp.**

The Belgian Development Co-operation Ministry has set up a series of agricultural publications which can be received for free from its administrative services in Brussels. This free service does not imply that the quality of the above-mentioned publications is of a lesser value! The booklet on arabica coffee in Burundi, for instance, is a very well documented (150 references) and illustrated work. It treats Burundi-linked problems but also cropping techniques and methods that are valid outside of Burundi. All aspects of the coffee crop are treated: starting with the biology of the arabica ("the mountain coffee"), one is given information about the multiplication of coffee plants, the choice and preparation of land, cropping methods, disease and pest control, and coffee processing. A small section deals with the extension and information transfer in the coffee sector-a case study using the World Bank promoted Training and Visit method is given. The illustrations are well-chosen and of a very good quality. The information contained in this work is up-to-date and based on recent research findings. All these factors make it worthwhile for the technician to read this book and use its information. A must if you are interested in the practical aspects of coffee growing.

Review by:
Patrick Van Damme

**"FAIDHERBIA ALBIDA (DEL.) A. CHEV. (SYNONYME: ACACIA
ALBIDA DEL). MONOGRAPHIE."**

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This monography has been written by the Centre Technique Forestier Tropical (C.T.F.T.) in collaboration with the Institut de Recherches Agronomiques Tropicales et des cultures vivrières (I.R.A.T.), the Institut d' Elevage et de

Médecine Vétérinaire des pays Tropicaux (I.E.M.V.T.) and the International Council for Research in Agroforestry (I.C.R.A.F.). It deals with a tree species which has recently gained a lot of interest as it is known to occur in a lot of traditional agroforestry systems in the more arid zones of Africa. The peculiar thing about this species is that it loses its leaves at the beginning of the rainy season, whilst it has leaves during the dry season. This allows farmers to grow crops under its canopy during the cropping season, whilst the tree will protect the soil during the rest of the year. Faidherbia albida has been shown to have a very beneficial effect on soil fertility whilst cattle and small ruminants can feed on its leaves and fruits. Its merits have long been hailed by traditional communities which have promoted its multiplication, thus creating a kind of "park landscape" typical for the drier savannahs. Faidherbia albida now seems to be a tree species that could be used to preserve the ecological equilibrium in (semi-) arid zones.

This monography gives the state of the art on Faidherbia albida. All recent research findings have been reviewed and are presented in a very comprehensive way. The plant is extensively described, using illustrative pictures and drawings. In a separate paragraph the authors explain why they use the monospecific Faidherbia albida denomination instead of the more common Acacia albida. This botanical part is followed by chapters on the geographical distribution, the origin of the species, the ecology and the genetic variation. An interesting chapter treats the different theories on the somewhat strange rhythm of leaf formation, followed by growth and multiplication characteristics. Great importance is attached to the interaction between Faidherbia albida and agriculture. Faidherbia albida reduces evaporation and transpiration (water savings up to 50 % !), increases relative humidity and reduces temperature extremes under its canopy, increases global rainfall under the canopy (following a mechanical effect through a slow-down of the rain drops' velocity), and maintains good radiation levels during the growing season. Soil characteristics are also influenced. It is especially the organic, chemical and biological properties that are improved by Faidherbia albida. Some mechanisms are discussed. The result of all these is that yields of millet, groundnut, sorghum and corn are increased when they are grown under Faidherbia albida's canopy and this qualitatively and quantitatively. Animal husbandry also takes advantage of this tree's properties. There is a direct effect through good quality fodder (leaves and pods), and an indirect effect through improved pasture quality and increased quantity of annual fodder produced. Adult trees also produce good quality wood that can be used in arts and crafts.

A small chapter treats its uses in local pharmacopaea, and religion and mythology. Apart from its possibilities to integrate it in local agriculture, *Faidherbia albida* can also be planted in pure forest stands. Methods of mass propagation are discussed extensively. At the end, the major pests and parasites are presented, whilst future research topics are also discussed. The monography provides good reading for agronomists and foresters alike. The practitioner and academic will find a lot of useful information presented in a very professional way. A must!

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