

More on Argan Oil - June 2001
Mark Nesbitt and Ruth Hajioff

Andrew Dalby (PPC 65) is quite correct in stating that argan oil (a more usual spelling than argon) comes from the argan tree of Morocco, *Argania spinosa*. This tree grows wild in abundance in the calcareous semi-desert of southwestern Morocco, taking the place of olive as a source of forage, oil, timber and fuel in Berber society. The trees give an average yield of fruit of 8 kg per year. The olive-sized fruits have a thick, bitter peel surrounding a sweet-smelling but unpleasantly flavoured layer of pulpy pericarp. This surrounds the very hard nut, which contains one (occasionally two or three) small, oil-rich seeds. The fruits fall when black and dry, in July; until then, goats are kept out of the argan woodlands by wardens. Rights to collect fruit are closely controlled by law and by village traditions. The leaves are important browse after harvest. Villagers agree that fruits were and sometimes are gathered after consumption by goats, as mentioned by Andrew Dalby, but this is not the case for oil produced for the market.

The most labour intensive part of oil-extraction is removal of the soft pulp (used as animal feed) and the cracking by hand, between two stones, of the hard nut. The seeds are then removed and gently roasted. This roasting accounts for part of the oil's distinctive, nutty flavour. The traditional technique for oil extraction is to grind the roasted seeds to paste, with a little water, in a stone rotary quern. The paste is then squeezed between hands to extract the oil. The extracted paste is still oil-rich and is used as animal feed. Oil produced by this method will keep 3-6 months, and will be produced as needed in a family, from a store of the kernels, which will keep for 20 years unopened. Dry-pressing is now increasingly important for oil produced for sale, as the oil will keep 12-18 months and extraction is much faster.

The oil contains 80% unsaturated fatty acids, is rich in essential fatty acids and is more resistant to oxidation than olive oil. Argan oil is used for dipping bread, on couscous, salads and similar uses. A dip for bread known as amlou is made from argan oil, almonds and peanuts, sometimes sweetened by honey or sugar. The unroasted oil is traditionally used as a treatment for skin diseases, and has found favour with European cosmetics manufacturers.

The future of the argan tree is a matter of grave concern. Demand for charcoal has led to destruction of at least half the *arganeraie* forests in the last hundred years, and charcoal-making, grazing, and increasingly intensive cultivation all threaten the argan trees today. They now cover some 828,000 ha and are designated as a UNESCO Biosphere Reserve. Perhaps the best hope of conservation of this fascinating, multipurpose tree, is indeed its oil. Sold in Morocco as a luxury item (although difficult to find outside the region of production), and of increasing interest to cosmetics companies in Europe, the oil is produced by several women's co-operatives in the region, as mentioned by Gert von Paczensky (PPC 66). The argan tree is endemic to Morocco, but cultivation trials are now under way in the Negev desert of Israel. One of us (RH) is now importing argan oil to the UK. Several trees can be viewed in zone 24 of the Temperate House at Kew.

Further reading: H.D.V. Prendergast & C.C. Walker (1992) The argan: multipurpose tree of Morocco. *Kew Magazine* 9(2): 76-85; J.F. Morton & G.L. Voss (1987) The argan tree (*Argania sideroxylon*, Sapotataceae), a desert source of edible oil. *Economic Botany* 41(2): 221-233. M'Hirit et al., 1998 *L'arganier: une espèce fruitière-forestière à usages multiples*. Pierre Mardaga, Hayen, 11 – 4140, Sprimont, Belgium, price 97 FF (available from www.amazon.fr).

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