Argania

For other uses, see Argan (disambiguation).





| Scientific classification | |
|---------------------------|----------------------------|
| Kingdom: | Plantae |
| (unranked): | Angiosperms |
| (unranked): | Eudicots |
| (unranked): | Asterids |
| Order: | Ericales |
| Family: | Sapotaceae |
| Subfamily: | Sapotoideae |
| Tribe: | Sideroxyleae |
| Genus: | Argania Roem. & Schult. |
| Species: | A. spinosa |
| Binomial name | |

Argania spinosa (L.) Skeels Synonyms

Argania sideroxylon Roem. & Schult. Sideroxylon spinosum L.



Goats climbing an Argan tree

The **argan** (*Argania spinosa*) is a species of tree endemic to the calcareous semi-desert Sous valley of southwestern Morocco and to the Algerian region of Tindouf in the western Mediterranean region. It is the sole species in the genus *Argania*.

Argan grows to 8–10 metres high and live up to 150–200 years. They are thorny, with gnarled trunks. The leaves are small, 2–4 cm long, oval with a rounded apex. The flowers are small, with five pale yellow-green petals; flowering is in April. The fruit is 2–4 cm long and 1.5–3 cm broad, with 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 fruit takes over a year to mature, ripening in June to July of the following year.

Cultivation

In Morocco *arganeraie* forests now cover some 8,280 km² and are designated as a UNESCO Biosphere reserve. Their area has shrunk by about half during the last 100 years, owing to charcoal-making, grazing, and increasingly intensive cultivation. The best hope for the conservation of the trees may lie in the recent development of a thriving export market for argan oil as a high-value product. However, the wealth brought by argan oil export has also created threats to argan trees in the form of increased goat population. Locals use the newfound wealth to buy more goats and the goats stunt the growth of the argan trees by climbing up and eating their leaves and fruit.

Argan is also grown in Israel, in the Arabah and Negev. [1][2][3]

Uses

In some parts of Morocco, argan takes the place of the olive as a source of forage, oil, timber and fuel in Berber society. Especially near Essaouira, the argan tree is frequently climbed by goats.^[4]

Fruit

Argan fruit falls in July, when black and dry. Until this happens, goats are kept out of the argan woodlands by wardens. Rights to collect the fruit are controlled by law and village traditions. The leftover nut is gathered after consumption by goats.

Argan oil

Main article: Argan oil

Argan oil is produced by several women's co-operatives in the southwestern parts of Morocco. The most labour-intensive part of oil-extraction is removal of the soft pulp (used to feed animals) 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 by hand in order to extract the oil. The extracted paste is still oil-rich and is used as animal feed. Oil produced this way can be stored and used for 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 becoming increasingly important for oil produced for sale, as this method allows for faster extraction, and the oil produced can be used for 12–18 months after extraction. Wikipedia: Citation needed

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 become favoured by European cosmetics manufacturers. Wikipedia: Citation needed

Argan oil is sold in Morocco as a luxury item, and is difficult to find for sale outside the region of production. The product is of increasing interest to cosmetics companies in Europe. It used to be difficult to buy the oil outside Morocco, but since 2001–2002 it has become a fashionable product in Europe and North America. It is now widely available in specialist shops and occasionally in supermarkets. Its price (US\$40–50 for 500 ml) is notable compared to other oils. Wikipedia: Citation needed

Argan oil contains: Wikipedia: Citation needed

- 44% Oleic acid
- 30% Alpha-linolenic acidWikipedia:Citation needed(Conflicts with table in argan oil)
- 12% Palmitic acid
- 6% Stearidonic acid
- 5% Linoleic acidWikipedia:Citation needed(Conflicts with table in argan oil)
- 3% Myristic acid



Foliage, flowers and immature fruit



References

- T.J. Lybbert (2007). "Patent Disclosure Requirements and Benefit Sharing: A counterfactual case of Morocco's argan oil". *Ecological Economics* **64** (1): 12–18. doi:10.1016/j.ecolecon.2007.06.017 ^[5].
- T.J. Lybbert, C.B. Barrett (2004). "Does Resource Commercialization Induce Local Conservation? A Cautionary Tale from Southwestern Morocco". *Society & Natural Resources* 17 (5): 413–430. doi:10.1080/08941920490430205 ^[6].
- T.J. Lybbert, C.B. Barrett, H. Najisse (2002). "Market-Based Conservation and Local Benefits: The Case of Argan Oil in Morocco". *Ecological Economics* **41** (1): 125–144. doi:10.1016/S0921-8009(02)00020-4 ^[7].

• O. M'Hirit, M. Bensyane, F.Benchekroun, S.M. El Yousfi, M. Bendaanoun (1998). *L'arganier: une espèce fruitière-forestière à usages multiples*. Pierre Mardaga. ISBN 2-87009-684-4.

- 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. doi:10.1007/BF02858970 [8].
- Rachida Nouaim (2005). L'arganier au Maroc: entre mythes et réalités. Une civilisation née d'un arbreune espèce fruitière-forestière à usages multiples. Paris: L'Harmattan. ISBN 2-7475-8453-4.
- H.D.V. Prendergast & C.C. Walker (1992). "The argan: multipurpose tree of Morocco". *Kew Magazine* **9** (2): 76–85.
- Dr, Elaine M. Solowey (2006). Supping at God's table. Thistle Syndicate. pp. 75–76. ISBN 0-9785565-1-8.
- Luigi Cristiano e Gianni De Martino (2000), "Marocco atlantico. In terra di Argania", *Erboristeria domani*, 233, pp. 78–85.
- [1] Growing for Change, Ruhama Shattan, Jerusalem Post, Oct. 12, 2001
- [2] Growth and oil production of argan in the Negev Desert of Israel, A. Nerd, E. Etesholaa, N. Borowyc and Y. Mizrahi, Industrial Crops and Products, Volume 2, Issue 2, February 1994, Pages 89-95
- [3] Phenology, breeding system and Fruit development of Argan [Argania spinosa , Sapotaceae] cultivated in Israel, Avinoam Nerd1, Vered Irijimovich2 and Yosef Mizrahi, Economic Botany, Volume 52, Number 2 / April, 1998, pl 161-167.
- [4] Infos at the-tree.org.uk (http://www.the-tree.org.uk/SpecialBranch/InTree/goats.htm)
- [5] http://dx.doi.org/10.1016%2Fj.ecolecon.2007.06.017
- [6] http://dx.doi.org/10.1080%2F08941920490430205
- [7] http://dx.doi.org/10.1016%2FS0921-8009%2802%2900020-4
- [8] http://dx.doi.org/10.1007%2FBF02858970

External links



Wikimedia Commons has media related to Argania spinosa.



Wikispecies has information related to: Argania spinosa

- "Argan Foundation" (http://www.artouest.org/web/arganefoundation/english/Index E.htm). Archived (http://web.archive.org/web/20060103003754/http://artouest.org/web/arganefoundation/english/Index E.htm) from the original on 3 January 2006. Retrieved January 15, 2006.
- "Arganeraie" (http://www2.unesco.org/mab/br/brdir/directory/biores.asp?code=MOR+01&mode=all). Retrieved January 15, 2006.
- "Trade and Environment Database: argan oil" (http://www.american.edu/ted/argan-oil.htm). Archived (http://web.archive.org/web/20060206085424/http://www.american.edu/ted/argan-oil.htm) from the original on 6 February 2006. Retrieved January 22, 2006.
- "Biodiversity of South Western Morocco (Flora and Plant Communities of Morocco)" (http://www.teline.fr/eng/). Retrieved October 29, 2006.
- "The argan tree in Marocco: Propagation by seeds, cuttings and in-vitro techniques" (http://aromabio.info/documents/presse/article_nouaim.pdf). Retrieved October 4, 2010.
- Kitty Morse, Ardent for Argan, 2004, Saudi Aramco World (http://www.saudiaramcoworld.com/issue/ 200405/ardent.for.argan.htm)

Article Sources and Contributors

Argania Source: http://en.wikipedia.org/w/index.php?oldid=604299592 Contributors: Axaladl, Badagnani, Badrelmers, Beland, Ben Ben, Chris the speller, ChrisGualtieri, Colchicum, DerBorg, Dthomsen8, Dysmorodrepanis, Edward321, Elma09, Ercé, Flat Out, Forstbirdo, Freshyill, Hanizone, Hesperian, Hydro, Ibbn, Iberlingeri, Ice-CreamAntisocial, Jaguarlaser, James086, Jhinman, Johnbibby, Jojalozzo, Kamaream, Khalid hassani, Lendorien, Lightmouse, Ligulem, Ligulem-s, MPF, Makki98, Mani1, Marknesbitt, Michael Snow, Mounadelaine, MrOllie, Niobe2009, Philbert2.71828, Plantdrew, Plasticup, PoeticVerse, Purus1956, Racconish, Rcsprinter123, Ricardo Carneiro Pires, Rjwilmsi, Rod57, Sahirshah, Scarlet Lioness, Schmallspurbahn, Shrimp wong, SimonPerera, Snabelaf, TDogg310, Tamaam, Tariqhada, TheKMan, Tomchiukc, Tortie tude, Trixie05, Trusilver, Uspn, Wikihic, WriterHound, 81 anonymous edits

Image Sources, Licenses and Contributors

File:Argan Tree near Tafraoute.jpg Source: http://en.wikipedia.org/w/index.php?title=File:Argan_Tree_near_Tafraoute.jpg License: Creative Commons Attribution-Sharealike 3.0 Contributors: User:Usen

File:Goats on a tree, capre_sull' albero.jpg Source: http://en.wikipedia.org/w/index.php?title=File:Goats_on_a_tree,_capre_sull'_albero.jpg License: Creative Commons Attribution 2.0 Contributors: marco arcangeli

File:Argania spinosa.jpg Source: http://en.wikipedia.org/w/index.php?title=File:Argania_spinosa.jpg License: Creative Commons Attribution-ShareAlike 3.0 Unported Contributors: MPF, Mindmatrix

File: Argania spinosa MHNT.BOT.2010.12.2.jpg Source: http://en.wikipedia.org/w/index.php?title=File: Argania_spinosa_MHNT.BOT.2010.12.2.jpg License: Creative Commons Attribution-Sharealike 3.0 Contributors: Roger Culos

Image: Commons-logo.svg Source: http://en.wikipedia.org/w/index.php?title=File: Commons-logo.svg License: logo Contributors: Anomie

Image: Wikispecies-logo.svg Source: http://en.wikipedia.org/w/index.php?title=File:Wikispecies-logo.svg License: logo Contributors: (of code) cs:User:-xfi-

License

Creative Commons Attribution-Share Alike 3.0