3 Sesame

Crop type

Sesame, *Sesamum indicum*, is a small annual plant growing up to 1m high, originating in Africa and now widely naturalized in tropical regions around the world. Related species also evolved in India, where it was first domesticated. Sesame is cultivated for its edible seeds, which grow in pods, and the oil which can be extracted from these. The famous phrase "*Open sesame*" derives from the feature of the sesame seed pod, which bursts open when it reaches maturity. Seeds of different sesame varieties range from pale cream to dark charcoal.

Sesame plants in flower. Credit: Enda Pronat

Cultivation and uses

Sesame cultivation has been traditional for thousands of years in the Indian subcontinent and the Far East, generating hundreds of different culinary, medicinal, cosmetic and other uses. Sesame seed can claim to be the earliest recorded use of a spice: An ancient Assyrian myth states that the gods drank sesame wine the night before they created the earth. Asia still grows 70% of the world's sesame crop, with Africa producing 26%, mainly in Sudan, Ethiopia, Uganda and Nigeria. In Senegal, organic farmers' federation Yakaar Niani Wulli (YNW) in the Koussanar region and ecological farming NGO Enda Pronat first started sesame production in 2004. Sesame is an easily grown crop, which fits well in the organic cotton rotation sequence and gives moderate yields of seed of around 380 kg per hectare. Sesame seeds can be used whole in cooking for their rich nutty flavour, incorporated into a huge range of savoury and sweet breads, flours, biscuits and snacks or sprinkled whole onto burger buns. Tahini paste is made from the ground-up seeds and the Middle Eastern snack halva is made from sesame seeds and honey. Sesame oil is widely used in Eastern cooking and has the highest antioxidant content of the six major plant seed oils. Sesame is rich in healthy polyunsaturated fats, mineral nutrients iron, magnesium, manganese, copper and calcium and contain vitamins B1 and E. Sesame also contains phytoestrogens, claimed to have antioxidant and possible anti-cancer properties.

Farmer in his sesame field. Credit: Enda Pronat

Processing and marketing

The YNW Federation processes most of their sesame locally, using a manual press to extract and filter the oil after grinding, steaming and pressing the seed (4kg of seeds to yield 1 litre of oil). Currently most of the oil is sold in Dakar to cosmetics companies, which value it as an excellent massage oil rich in Vitamin E, and to urban consumers who use it to season vegetables or to prepare *thiéboudiène* (rice with fish), the Senegalese national dish.

FIBRE FOOD BEAUTY

Sesame

Food crops grown by organic cotton farmers in West Africa

Sesame is not widely eaten in Senegal so there is limited market demand nationally nor any food security concerns in selling it for export. YNW farmers consider sesame as their most suitable crop for export markets, especially with companies interested in knowing the origin and sustainable production practices and farmer 'stories' behind the end product. There is high demand for organic sesame in European markets and also non-organic markets, with attractive prices. In 2007, the YNW Federation sold 7.8 tons seed to Indian importers. To add value, the farmers would like to sell more sesame oil products, rather than the raw seed, although the Federation's oil physical quality and stability and extraction processes would need to be improved and made more efficient.

Recipe: Halvah Shortbread

Tahini paste made from sesame seeds is the basis for these biscuits. You may buy tahini or make it yourself.

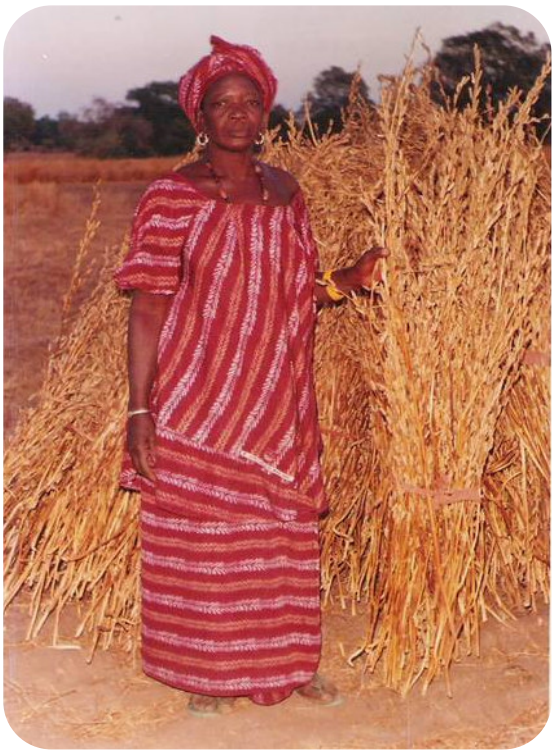
- 180g butter, softened
- 120g tahini
- pinch of salt
- 200-250g brown sugar
- 240g plain flour
- 70g toasted pecans or walnuts, chopped or ground
- A few pecan or walnut halves to decorate

Preheat oven to 375F/190C/gas mark 5. With a food processor or by hand, cream the butter with the tahini. Add the salt and brown sugar. Blend until smooth. Sprinkle in the flour, blending well. Mix in the chopped pecans or walnuts. The dough should be very stiff. Lightly butter two pie plates approx. 18cm diameter or shallow baking pans. Press the dough to evenly cover the bottom and sides of the pie plates to a thickness of no more than 0.5cm. Press a few whole nuts into the surface to decorate.

Bake the shortbread for 15 minutes and remove from the oven as soon as the edges are golden brown. While it is still warm, cut each shortbread into 8 or 10 wedges in the pan.

Recipe Source: Sundays at Moosewood Restaurant by Moosewood Collective (Simon & Schuster, 1990) Reprinted with permission. Via http://homecooking.about.com/od/cakerecipes/r/blc78.htm

Village scene in Koussanar, Senegal, with baobab trees. Credit: Britta Pichler



Farmer with her harvested sesame stalks ready for threshing. Credit: Enda Pronat

FIBRE FOOD BEAUTY

Fibre, Food & Beauty for Poverty Reduction is a joint project of PAN Germany, PAN UK, OBEPAB from Benin and Enda Pronat from Senegal. It aims to raise awareness about the many different food crops grown by organic cotton farmers in Africa and help them to find better marketing options for these, in local or export markets.

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http://www.pan-uk/foodAfrica **http://www.pan-germany.org**

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