



nuts & nut trees



what are they?

As a rough definition, nuts are seeds more than c. 1cm in diameter. There's a botanical definition for a nut, but there is also a culinary definition - most edible, hard kernels are referred to as nuts. We're more concerned here with the culinary definition - if you're a botanist, please forgive us.

Of the commercially-grown UK nuts, only hazel is native. It would have been a staple of the first tribes in Britain, and helped them survive the winter, but would have started to germinate in the spring. Roasting or drying them on or near the fire would have made them last several years. It's also called the filbert or cobnut - the papery bracts that surround the nut completely enclose a filbert, but a cob has open bracts that expose the nut.

Sweet chestnuts were brought over by the Romans, and have become naturalised. Wild stands of sweet chestnut usually yield quite poor nuts, as they're not well adapted to the British climate. But around the Mediterranean they used to be a staple carbohydrate (they have a similar nutritional value to rice). They were traditionally dried in two-storey barns. The nuts were piled up on the floor of the upper storey, comprised of wooden slats with gaps between them. A fire was started below, and the heat and smoke dried and smoked them, after which they'd store for years. When wheat swept through Europe from Africa, it was grown in the flat valley bottoms and chestnuts were planted in the hills. In many areas around the Mediterranean there are still lots of chestnuts on the hillsides.

Walnuts probably have a Roman origin too; they haven't become naturalised, although they occasionally self-seed. There's a history going back several hundred years of nurserymen selling walnut trees - mainly of French origin.

Almonds are from the Mediterranean too, and are more difficult to grow in the UK. They do better in



Sweet chestnuts on the tree & after harvesting.

the east of the country, particularly in London, as it's usually a bit warmer, with more shelter.

Acorns and beech nuts (both native) can be edible (see below). Horse-chestnuts (native to the Balkans and introduced into Britain in the 17th century) are definitely not edible, as they contain saponins - not good for eating but good for making soaps; and of course they're indispensable for playing conkers.

The nut industry is huge world-wide, particularly in the US (walnuts & almonds) and China (walnuts and chestnuts). In Britain we often see chestnuts from China in shops before Christmas, which is ecologically a bit crazy.

Other nuts include pecans (southern US); Macadamia (Australia) and Brazils (S. America).

Peanuts are legumes - really a type of bean. The flower head bends over and buries itself underground, where the 'nuts' develop in a pod.

what are the benefits?

- As with any tree, they store carbon, prevent soil erosion and provide habitat during their life, and timber and/or firewood at the end of it.
- Animals can be grazed or crops can be grown underneath nut trees.
- Nuts are very good for us: if they're high in carbohydrates like chestnuts, they can play a similar role to grains our diet; and nuts like hazelnuts and walnuts contain oils that are extremely beneficial - particularly for the heart.
- People with grain allergies can use chestnut flour, as it contains no gluten.
- Nuts are a good source of concentrated protein, so can replace meat in lots of recipes.
- Home-grown food just tastes better; growers would say that though, but when you consider that most commercially-grown nuts have endured herbicides, fungicides, insecticides, storage and transport, they may well be right.



Hazelnuts on the tree and after harvesting.



what can I do?

Picking from the wild: wait until hazelnuts start dropping from the tree in September, but no longer, or grey squirrels will get them. Shake the branches and the ripe ones will fall.

Acorns contain bitter tannins that need to be removed. Harvest in October, dry for a week, cut lengthways with a sharp knife and the two halves of the kernel will fall out. Beech nuts are too small to be a crop, but you can nibble them when out.

Planting: chestnuts and walnuts are big trees, so need to be planted 12-15m apart. You can plant other things between them for the first 10-15 years. Hazels are smaller and can be planted 5-6m apart. Plant nut trees in the winter when they're dormant. Hazels aren't self-fertile - you'll need at least two different named varieties (selected for good fruiting). Individual trees have male and female flowers (catkins) that open at different times of the year, so they can't self-pollinate. A hazel hedge nearby could work too. A few nurseries in the UK specialise in nut trees. Hazels are grown on their own root, not grafted, and you'll usually buy them c. 1m tall.

Walnuts and chestnuts are unlikely to have pollinating trees nearby, so you'll need 2 varieties at least. *Marigoule* and *Belle Epine* are good pollinating varieties. Most chestnuts are grafted to a seedling root stock, but you can't choose a rootstock that will determine the eventual size of your tree. Chestnuts are planted 1-1.5m tall.

Caring for nut trees: chestnuts need staking for the first year, and you need to protect all young trees from rabbits, but after that, non-monoculture trees don't have major pests or diseases.



Walnuts on the tree and after harvesting.

Chestnut and walnut produce excellent timber, but if looking that far ahead, prune the side branches to make sure the tree grows straight and tall.

Harvesting: hazels produce nuts after 2 years, chestnuts & walnuts after 4. Hazel catkins appear from Feb-March and sometimes April. If it's very cold then, it probably won't be a good crop.

Grey squirrels can strip walnuts and hazels before they're ripe. Some people eat them (casseroled). Cats/dogs can also deter them. The Forestry Commission is working on a contraceptive.

Chestnuts have a spiny burr, which deters squirrels. In October the burrs open and the nuts fall to the ground. Harvest chestnuts frequently - they're more perishable than other nuts, and will rot, or get eaten by mice. If there's been a gale, the day after would be a good time to harvest.

You can use a 'nut wizard', which doesn't require bending, for harvesting fallen nuts.

Eating: you can store most nuts for several months and eat them raw (chestnuts are delicious roasted). Find nut recipes online and in books. Store fresh chestnuts in the fridge for 4-6 weeks, or dry them in a dehydrator at 40°C for 3-4 days. Once dried, they'll store for years. Soak dried chestnut kernels overnight before cooking (hazelnuts and walnuts don't need it). Chestnuts can be ground into flour and added to bread mixes. It has no gluten, so can't be used to make risen bread, but it makes great pancakes.

Grind acorn kernels in a coffee grinder. Half fill a jar with the acorn meal, and fill to the top with water. Put it in the fridge or somewhere cool for 3-4 days. Once a day, pour off the water and refill, and the tannins will leach away. Add to stews, soups or bread / biscuit mixes.

resources

- see lowimpact.org/nuts for more info, courses, suppliers, links and books, including:
- Martin Crawford, *How to Grow your own Nuts*
- J McMorland Hunter, *Nuts: Growing & Cooking*
- Catherine Chambers, *Nuts*
- Allen Gilbert, *Just Nuts*
- gardeningblog.net/how-to-grow/chestnuts
- gardeningblog.net/how-to-grow/hazelnuts
- gardeningblog.net/how-to-grow/walnuts
- nutstudies.org - research into the nutritional benefits of nuts
- allrecipes.co.uk/recipes/nut-and-seed-recipes.aspx - 700 nut & seed recipes

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