

PLANT ID: ash

Fraxinus excelsior L.



Commercial uses

Before steel, ash was used extensively for boat and car chassis frames and tool handles.

Other uses include: snooker cues, pre-1990's tennis rackets. These days it is used for wood veneers and flooring.

The *Olivaceae* family includes another well-known species that produces a fleshy berry instead of a winged **achene** (seed) that is used in cooking – the olive!

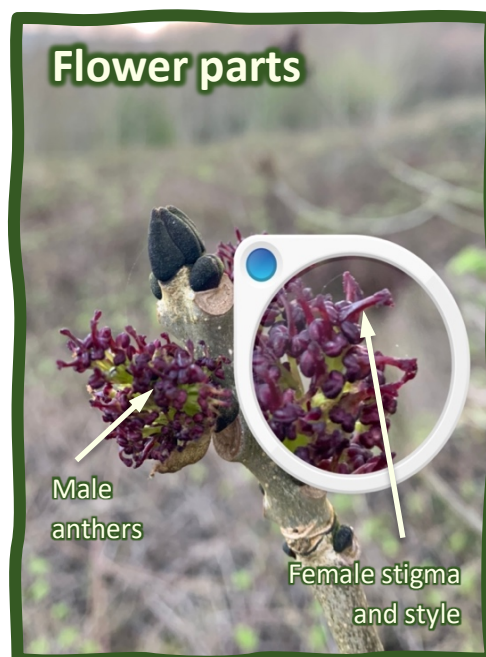
Flowers and buds



Look out for Ash trees with just male or female flowers.

The very young fruits are edible when cooked

Flower parts



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Practical Uses:

As a wood fuel, ash is thought to be the best while still green but of little use when dry:

*"Burn ash-wood green, 'Tis fire for a queen;
burn ash-wood sear, 'twill make a man swear".*

Weather Forecasting:

The emergence of ash and oak leaves is thought to be a predictor of the summer weather:

'Ash before Oak you're in for a Soak' (a summer of mixed weather)

'Oak before Ash you're in for a Splash' (drought)

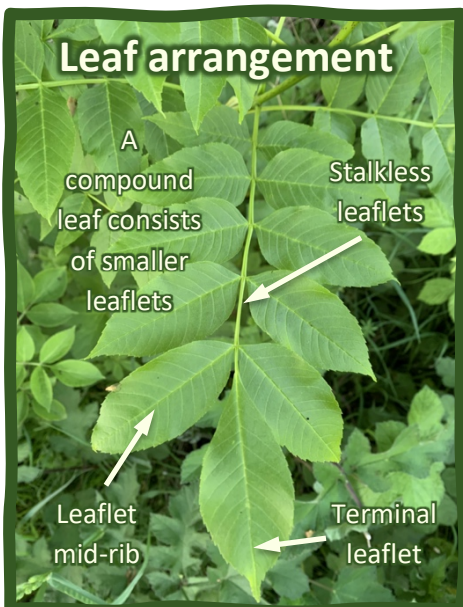
Reproduction strategies:

A wind-pollinated tree that flowers before the leaves emerge so the pollen can be blown through its bare branches, thus like some plants, they don't need eye-catching flowers to attract the wind.

Magic Status:

Witches were reputed to use Ash branches to help them fly. An evenly shaped Ash leaf was thought to bring luck – 'The even ash-leaf in my hand, the first I meet shall be my man'.

Leaf arrangement



Emerging new leaves



Turning from green to lemon yellow colour



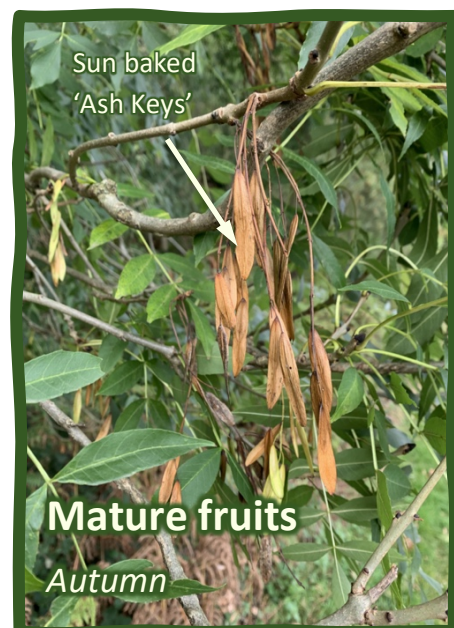
Fruits are called samaras (a winged fruit)



Fertilised ovary begins to swell



Sun baked 'Ash Keys'



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Fraxinus excelsior L.

Fact File:

CURRENT STATUS: Near Threatened

LOCATION: Found everywhere across U.K and Europe

Plant Description (aka Taxonomy)

The Ash genus (*Fraxinus*) is a member of the Olive family (*Oleaceae*). The Ash genus are woody in nature, have opposite **pinnate** leaves, flowers that lack petals and a fruit that is referred to as a winged **achene**.



Flowers in April to May, before leaves emerge.

Flower Structure

Purplish/red before opening into yellow/green flowers with no petals. Appearing well before leaves begin to emerge.



Fruits

Visible in May and remain obvious on the tree thereafter. Like a bunch of hanging 'keys' they are often referred to as 'ash keys'. They can occur as dense clusters of bright shiny-green single winged fruits called a 'samara'.



Leaf

Dull light to mid-green. Usually pubescent beside each leaflet mid-rib. Compound leaf of shallow serrated leaflets displayed pinnately with 7-13 pairs of stalkless side **leaflets** and one terminal leaflet.



Habitat

Typically grows naturally in lowland forests on fertile damp clay soils but can be found in higher elevations too (up to 1800m in the Alps); especially further south in Europe and beyond. Often planted in urban streets across Europe.



Buds

Black, large and hard to the touch; often referred to as looking like the 'hoof of the devil' or the immature new growth of an emerging Deer antler from its forehead.

ALIASES

Also known as:
European Ash,
Esh, Hampshire
weed and the
Widow-maker.

What to look for



Best time to see it and use it

- April – May: spot the strange purple-red coral-like flowers which emerge before the leaves.
- The rising sap in the branches in early spring allows the young stems to be used for ash whistles in a similar way to willow – see the Ash Play Springboards.
- All year round, ash's forked branches are good for making catapults.

Stem and trunk

Common ash is a medium sized deciduous tree with a domed canopy and ascending branches, that can reach 25m with a trunk girth of up to 5m.

Young shoots are green to grey with white lenticels, stout becoming flattened at the leaf nodes. In young trees, bark is smooth light grey becoming fissured with age.

Often host to lichens and moss.

Mature trees need lots of light for it to flourish, which explains why young trees with very slender trunks have raced their way up to the canopy in their early years.

FOOD WEB

Nectar gathered by insects.
Wood boring beetles lay eggs beneath the bark.
Woodpeckers feed on insects.

IMPERSONATORS:

Rowan (*Sorbus aucuparia*), is commonly mistaken for ash. A key difference is that rowan has alternately arranged buds, whereas ash buds are all opposite. Also, rowan has distinct coloured umbel like white flowers followed by bright orange berries. Other similar native trees in central to southern Europe to look out for: Narrow-leaved ash (*Fraxinus angustifolia*) has brown-purple buds in winter; leaf edges are more jaggedy; leaf top surface shiny-green, but **glabrous** beneath.



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What's in a name? Both its common name and its generic Latin name are derived from ancient languages that describe ash timber as being good for the shafts of spears.

Botany glossary (part 1)

Achene refers to a single fruit that is small and dry, e.g. dandelion, buttercups

Bark the thick outer protective layer of a tree trunk

Trunk the main stem or axis of the tree from which all the branches and canopy spread from

Fissure long narrow cracks or openings as seen on some tree trunks

Bud a small swelling along a branch or at its end from which new leaves, flowers grow

Shoot refers to recent plant growth that may be either a stem, a flower or a leaf. Often also refers to a new plant that emerges from the ground

Lenticels an elliptical raised marking on a shoot that is a breathable pore

Pinnate a compound leaf with more than 3 leaflets arranged in opposite pairs along the main leaf stalk ending in a terminal leaflet

Botany glossary (part 2)

Flower contains the plants reproductive parts at the end of a stalk. It is recognised by the presence of stamen, stigma and ovary usually surrounded by whorls of coloured petals and green sepals.

Anther pollen-bearing part of the Stamen (male) found at its tip.

Leaf scar the mark left on a twig after a leaf as fallen away from it in autumn.

Compound leaf a leaf that is divided into a number of separate smaller leaflets.

Leaflet smaller sub-component of a compound leaf; a smaller leaf.

Style related to the female parts of the flower. A stalk like feature that connects the stigma and ovary, allowing a pollen grain to travel downwards into the ovary at its base.

Glabrous without any hairs

Get up close to the ash by taking a virtual tour using the Pappus film library.



Oldest and largest known tree

Give or take 100 years, the oldest known tree is over 860 years old.

The largest measured tree has a girth of 13m around its trunk.

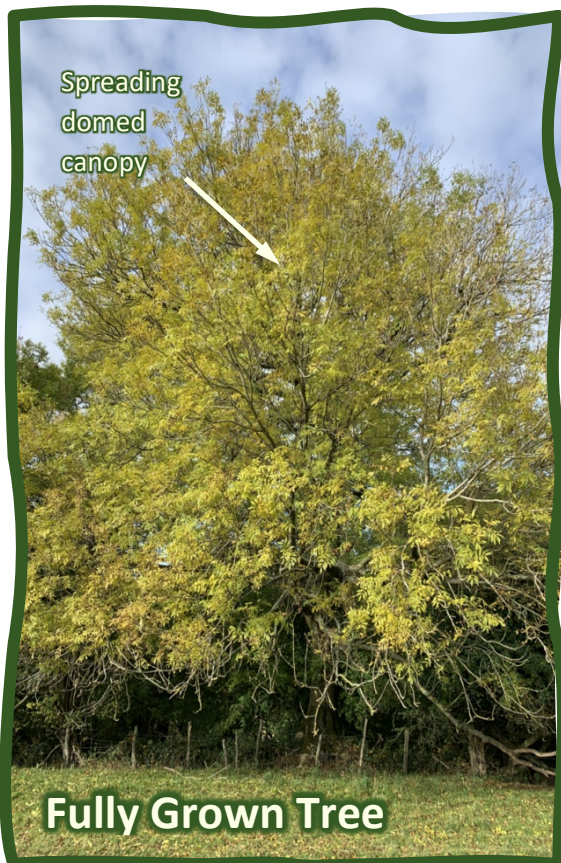
Note: the largest tree isn't always the oldest!

Global distribution

Found across the UK and west and eastern Europe in abundance, but less so in extreme north and south of Europe.



www.GBIF.org



Fully Grown Tree

Threats to the ash

First identified in 1992, a fungal disease referred to as 'Chalara ash Dieback' (*Hymenoscyphus fraxineus*) has the potential to wipe out ash trees across the globe.

In 2018 its status was down-graded to 'Near Threatened'.

You can help by spotting the disease and reporting it to Forest Research.

Global species risk of extinction

(IUCN – Red Data List)

In 2018 its existence was downgraded to 'Near Threatened'



Ash dieback
Forest Research

