

Mistletoe *Viscum album*

Mistletoe belongs to the genus *Viscum*, a group of about 70-100 species native to temperate and tropical regions of Europe, Africa, Asia and Australasia. *Viscum album*, the European mistletoe, is the only one native to the UK.

Mistletoe are woody shrubs with branches 15–80 centimetres long. Their hosts are woody shrubs and trees. Mistletoe is parasitic and so, although green and capable of photosynthesis, draws most of its mineral and water needs from the host tree. Different species of *Viscum* tend to use different host species. In the UK this includes poplar, hawthorn, lime and maple but by far the favoured host is *Malus domestica*, the cultivated apple, and about 50% of all mistletoe is found on apple trees.

The flowers are inconspicuous and greenish-yellow. The fruit is a white berry (*Viscum album* being the only mistletoe with white berries) when mature, containing one or more seeds embedded in very sticky juice; dispersal occurs when birds eat the fruit and either excrete the seeds in their droppings or remove the sticky seeds from their bill by wiping them on tree branches where they can germinate. The native Mistle Thrush gets its name from its association with mistletoe but the best disperser of mistletoe seeds that result in germinating plants is believed to be the Blackcap, as this is the species that typically wipes its bill clean of seeds whilst feeding.

Mistletoe has separate male and female plants. The male is berryless, however even some female plants don't have berries if they grow in isolated situations, away from other mistletoe populations and therefore any male plants.

Where there are several mistletoe growths the male and female plants are readily distinguished – the male tends to be more pendulous, the female is more upright. Some growths can seem to be a mix of the two as seeds will germinate very close to each other and one mistletoe plant can even grow on another, creating a mixed bunch.

Data shows that mistletoe distribution is closely linked to that of lightly managed, traditional orchards, particularly in the South West and Midlands, and it is synonymous with the counties of Somerset, Gloucestershire, Herefordshire and Worcestershire. Traditional orchards have declined in extent by at least sixty per cent since the 1950's (far more in some localised areas) and with them the mistletoe which relies upon them for habitat.

As well as providing winter food for birds, mistletoe also supports a small number of specialist insects including the scarce Mistletoe Marble Moth (*Celypha woodiana*), some sap-sucking bugs and the affectionately named 'kiss me slow weevil' (*Ixapion variegatum*).

Management

There is no definitive answer as to how mistletoe should be managed and it depends upon your priority for your orchard. The commercial fruit grower wanting to maximise fruit yield will likely remove any mistletoe that shows its head in its entirety, thus making sure none of his tree's energies are diverted from fruit production.

The amateur or part time orchardist who is not looking to get maximum fruit may well like the idea of having a mistletoe crop in their orchard and managing it in such a way as to keep it in check will give all the wildlife benefits whilst minimising the stresses on the tree. Management is important as if left to grow unchecked mistletoe will dominate and drastically shorten the life of the host tree.

Mistletoe to be removed should be cut from the tree as close to the branch as possible without actually cutting into the bark of the tree. In some instances it will never grow back, in others it will but may take 2 or 3 years to show itself again. Mistletoe management on a small scale can therefore be an every 3 or 4 year project rather an annual undertaking.

Key points

- Each time you do cut, remove a considerably greater proportion of the male, berryless mistletoe as it is more vigorous as well as being worthless. It is however necessary to retain some male in order to get berries on your female mistletoe! Pollination is via small insects so a healthy mistletoe population requires some of each sex to be present.
- It is the female mistletoe that is harvested for decorative use with its berries being the key feature. However, harvesting the berried mistletoe too heavily will reduce the source of viable seed and so reduce the amount available to be spread around by birds to create new growths.
- How much to retain is again a subjective decision. A large, healthy tree can support several bunches of mistletoe, which if cut on a regular cycle can co-exist with the tree for decades.
- Smaller trees with large amounts of mistletoe will suffer reduced vigour, weaken, produce less fruit and have a shorter life. Large mistletoe loads on small or very elderly trees add weight and sail area to the tree, the latter being a bad thing in winter months as storm damage becomes more likely. In this instance severe reduction will be necessary for the good of the tree.

In summary, if you like the idea of having mistletoe in your orchard retain a small amount of both male and female, but keep it managed by cutting back on regular basis.

By cutting in late November / early December you can also try to sell a bit of female mistletoe for the festive season.

Useful links:

<http://www.mistletoe.org.uk/>

<http://www.orchardnetwork.org.uk/content/mistletoe-campaign>

Links to some good tools:

Fiskars pole pruner

<http://www.fiskars.co.uk/Gardening-Yard-Care/Products/Wood-Branches/Universal-Cutters/115560-Telescopic-Garden-Cutter-UP86>

Wolf tools interchangeable handle pruning

<http://www.wolfgarten-tools.co.uk/multi-change-tools/tree-care-without-a-ladder>

Darlac tools

<http://www.darlac.com/category/gardening/swop-top/pruning>