



Apples



Scientific Name: *Malus domestica* **Irish Name:** Úll

Apples are the fruit of the domesticated tree *Malus domestica*, which descends from wild apple trees that grew in central Asia thousands of years ago. There are other species of apple trees other than *Malus domestica*, known as crab apples, wild apples and crabtrees.

An apple is a type of fruit known as a pome. A pome has a core of seeds, surrounding by a tough membrane, which is then surrounded by an edible fleshy layer. It is this fleshy layer that we enjoy eating. There are over 7,500 varieties of apples around the world and that number is always on the increase, with growers cultivating more and more varieties. The main characteristics that apples are grown for are taste and texture, colour, purpose, yield, disease resistance and storage. Broadly speaking, there three types of apples: Cooking Apples, Dessert Apples and Cider Apples.

COOKING APPLES:

These are apples that are suitable for cooking or baking. Cooking apples are generally not sweet enough to eat fresh. An example of a cooking apple variety is the Bramley.



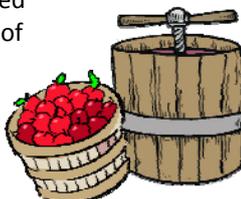
DESSERT APPLES:

These apples can be eaten fresh from the tree or after a period of storage. Sometimes apples can be used for cooking early in their growing season. Granny Smith, Golden Delicious, Gala and Pink Lady are examples of varieties of eating apple.



CIDER APPLES:

Cider apples have a bitter taste due to their high concentration of a substance known as tannin. These apples are ideal for making cider—an alcoholic drink made from fermented apple juice. Non-alcoholic versions of cider are now becoming popular, where the alcohol is removed. Cider is also used for making cider vinegar, which is used in cooking.



Apple blossoms.
Image courtesy of Susan Murphy Wickens



Grafting other varieties of apple tree onto a different tree.
https://commons.wikimedia.org/wiki/File:Apple_tree_grafting_2.jpg

The Apple Tree

Apple trees need free-draining, fertile soil and a sheltered area in which to grow. In spring the tree produces apple blossoms, which are pollinated by insects. Some apple trees need to be planted near different varieties of apple trees for pollination to take place. Throughout the summer, the fruits develop and are harvested from September to November in the Northern Hemisphere.



Apple trees do not grow well from cuttings and varieties do not grow 'true' from seeds. Therefore, apple trees are produced by grafting a cutting onto a rooted part of an apple tree, known as rootstock, and that dictates how tall the tree will grow—anything from 1.5m to 4.5m. Apple trees need to be pruned each year to maintain the optimum tree shape for growing apples. The wood of the apple tree is a dense wood that is used for furniture making.

Why does an apple turn brown when you cut it open?

When an apple is cut open or your bit into one, the flesh is exposed to the oxygen in the air. As the oxygen interacts with enzymes in the apple, it causes a chemical reaction in the flesh of the apple and turns it brown. Enzymes are proteins that speed up the rate of a chemical reaction in a living organism. One way of preventing the apple from going brown is to coat the flesh with lemon juice as soon as it is cut.

