**Harvesting and Storage of Top Fruit**

**Harvesting**

**Apples**

Each apple variety has its optimum picking time and eating period, which are very often different. Later varieties *need* a period of maturation to develop their full flavour.

It is useful to think of apples in terms of fruit phase, a term coined by Juniper and Mabberley in The Story of the Apple. They divide apples into 3 phases.

Phase 1 – these are brightly coloured, frequently red or with a red flush, but include the white skinned apples. The skin may have a waxy bloom. They invariably have soft flesh and bruise easily. They do not keep for any period of time and are eaten straight from the tree. They are usually fragrant, sweet and juicy with a pleasant but not complex flavour. Beauty of Bath, Discovery, James Grieve, Irish Peach and Worcester Pearmain are typical examples.

Phase 2 - these are less highly coloured, normally not fragrant and rarely waxy. They are harder skinned with firmer flesh and a richer flavour. With correct storage they will keep for a couple of months. Large numbers of cultivars fall into this category.

Phase 3 – these are picked in late autumn and must be stored to reach maturity. Generally hard, dry fleshed and often russeted they often have rich and complex flavours. With correct storage they will keep for 3 or 4 months or even longer. Examples include Ashmead’s Kernel, Claygate Pearmain, D’Arcy Spice, Granny Smith and King’s Acre Pippin.

Apples should be picked when they part from the stalks easily. Lift the apple in the palm of your hand to a horizontal position and give it a gentle twist. If it comes off easily it is ready. Late maturing, Phase 3, varieties should be picked in late October, before the first frosts and not left on the tree – there are however a few exceptions (see below). Apples often take on a brighter colour when ready for picking and the pips turn from white to brown. If you shake them they often rattle. If you see the fruit dropping this is also a sign that they are ripe but beware the “June drop” and also apples harbouring Codling Moth and other moth caterpillars which fall early. Go over the tree and pick off all those that are ready once a week. Don’t pick them all at once.

Some cultivars hang well on the tree for several weeks after becoming ripe and some even after the first frosts and leaf fall. This can be useful for extending the harvesting season. The only early variety in this category is the cooker, Arthur Turner. Late-season varieties however are more plentiful and include – Bismark, Court Pendu Plat, Crawley Beauty, Edward VII, Fuji, Gala, Newtown Pippin, Royal Gala, Sturmer Pippin and Wagener.

Conversely, some varieties tend to drop their fruit rapidly as they ripen. Many cider apples have this characteristic and this is advantageous as it makes harvesting much easier. For cookers and desert apples this can also be an advantage where large standard trees of non-storing apples are concerned, particularly if these are to be used for juice or preserves.

Early season varieties in this category include – Beauty of Bath, Brown’s Apple, George Cave and James Grieve.

Mid season varieties include – Gravenstein, Sweet Coppin and Violette and late season varieties include – Annie Elizabeth, Duke of Devonshire, Lady Henniker and Spartan.

Cider varieties include – Ashton Bitter, Brown Snout, Chisel Jersey, Dabinette, Stembridge Jersey, Tremlett’s Bitter, White Jersey and Yarlington Mill.

**Harvesting Methods**

There are three methods of harvesting – hand-picking, shaking and windfalls. Which you deploy will depend on variety of apple, size and shape of tree and end-use for the fruit.

Hand-picking – apples intended for market (either at the gate or through retailers) will nearly always be hand-picked in order to avoid bruising. Where apples are intended for home storage or extended storage prior to juicing then again hand-picking is the best option.

In traditionally grazed orchards, stock must have been removed for a minimum of 2 months before apples intended for the human food-chain can be taken off the ground. This length of withdrawal is very rare nowadays and irrespective of the end-use for the fruit, hand picking may well be the best/only option in this situation.

With well pruned bush orchards hand picking can be very rapid. Even with well pruned half-standards and standards, in good years much can be picked without recourse to ladders. However the use of ladders will often be necessary. Colwall Orchard Group uses Japanese tripod topiary ladders supplied by Niwaki. These are extremely light and very stable but expensive ranging from £250 inc. VAT for a 6 ft. to £400 for a 12 ft. They have the advantage that the tripod leg can be placed well under the canopy, close to the trunk, allowing close approach to the apples.

Shaking – where bruised fruit is not an issue because it is going rapidly into preserves or juice then shaking can be an extremely efficient method of harvesting large quantities of fruit. When hand-shaking the use of a branch hook is invaluable. Slow, steady shaking is the key. This sets up regular waves of energy through the canopy and can release prodigious quantities of apples. The use of tarpaulins spread beneath the tree helps to keep the fruit clean and is essential if grazing stock have not been removed for the requisite period. The use of four people (one on each corner) to hold the tarp off the ground can also be helpful – but remember an apple falling from the canopy can bruise you as well as itself.

Windfalls – tried and tested and easy! But remember they will be bruised and so won’t keep and can only be used from un-grazed orchards.

**Containers**

However you harvest the apples you will have to put them in something at various stages of the process. Most of the time Colwall Orchard Group uses adjustable picking bags supplied by Vigo Presses - £22.50 inc. VAT in October 2016. They are very comfortable to wear, either on the shoulder or round the waist, and are the only sensible option when working from ladders. We then transfer the apples to bale arm crates (you can buy good quality, second-hand ones from Palletower Ltd – we use 550x366x230mm with vented sides and base which have a 36 litre capacity and cost £6 inc. VAT in October 2016.) or to large plastic trugs but we have found that trugs are not particularly durable. Bale arm crates are particularly useful for medium term storage of apples prior to juicing as they are stackable. If you are taking anything other than a small quantity (less than 500 kg) for juicing then you will have to invest in timber harvesting bins. These are usually 1.2m by 1m by 0.5m; they are available from Simven Bins in Ledbury and cost around £40. They will fit in the pay-load bay of a pick-up where they can then be filled from the bale arm crates. They are off-loaded by fork-lift at the juicers.

**Pears**

Pears need to be picked a little before they are ripe otherwise they become floury and tasteless.

When the first fruit parts easily from the stalk, start picking. Except for late ripening varieties pick selectively every few days. Fruit of late ripening varieties must not be picked too early or they may shrivel and fail to develop their full flavour. With very late varieties leave them on the tree for as long as possible and then when the first fruit drop pick them all and ripen in storage. The degree of ripeness depends on personal preference and experience but once the fruit gives a little, when squeezed gently between the finger and thumb near the stalk, they are usually ready to eat. If the fruit is to be used for cooking, this is less critical.

As with apples, early varieties such as Jargonelle must be eaten immediately. Later ones need a period of storage to soften and develop their flavour.

**Plums and Cherries**

Different varieties of plums, gages, damsons and cherries ripen at different times and require no

ripening period. With plums, gages and damsons, the stalk is left on the tree. With cherries, it is taken with the fruit.

**Storage**

Early apples like Beauty of Bath, pears such as Jargonelle and Beth (and plums and cherries) do not keep and should be eaten immediately. Others must be stored until ready. They require a relatively high humidity to prevent shrivelling and some ventilation to allow respiration to continue and are best stored in a cool, dark, frost-free and importantly mouse free place such as a garden shed or out-building. Ripe and unripe fruit (mid-season and late varieties) should be kept apart otherwise the ethylene given off by the ripe fruit may cause premature ripening of the late varieties. Fruit should be inspected weekly and any rots removed.

*Traditional method.*

Put the fruit in a single layer (if possible) in the bottom of a wooden orange box or flat light-blue plastic mushroom box, label them and stack. Wrapping each individual fruit in kitchen paper will help reduce moisture loss but it is not essential for most varieties.

*Modern method.*

Put about 500g of fruit into polythene bag, fold over the opening and punch a hole in the side of

the bag with a pencil. Store in boxes or, if you use tie-handled bags, these can be hung from the

roof in a cool place (keeps the mice off!). Any rotten fruit can easily be seen and removed. Fruits that shrivel badly in storage such as the apple Orlean’s Reinette and the pear Catillac are best stored in this way.

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