

Lancashire County Council

The following guide has been created by Lancashire County Council Treescapes Team to help answer some questions you may have when creating your orchard. Elements contained in this booklet are intended as a guide and not strict requirements.

The guide covers location choice, tree choice, planting best practise, and a whole lot more.

There is also a glossary at the end to help navigate some of the more specialist terminology.

Happy orchard creating!

Treescapes team



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CREATING A COMMUNITY ORCHARD IN 5 STEPS...

- 1. Choose your location Where is the best location for your orchard?
- **2. Decide what to plant** Some fruit trees will work better in your space than others, choose your trees wisely.

3. Design and plant your orchard

Spacing, protection, and how to plant your tree – a guide on best practise.

4. Look after your trees

Basic care and maintenance of your trees will help keep them healthy for longer.

5. Pick the fruit, make the pies!



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1. Choose your location

Some spaces work better than others, below is an example of some good features for an orchard.





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2. Decide what to plant

Some fruit trees will work better in your space than others. The short list below highlights the most popular apple trees for England, but with research you may find that other fruit trees would do better on your site due to its soils, conditions, or location.

See the Pick Your Orchard List for all fruit trees that do well in the North West.

Popular Culinary Apples

- Arthur Turner
- Bramley's Seedling
- Grenadier

Popular Dessert Apples

- Egremont Russet
- Greensleeves
- Discovery

Consider also planting some **Crab Apples** – these are hardy trees, which can grow in most climates found in the North West, and have a very long flowering period, which will benefit the other trees in your orchard by attracting pollinators whenever they are in season.









The ideal size for

most community

Tree size

When buying trees, they are sold by their stem size and what the roots looks like. Standard trees are graded not by their height, but by their girth in centimetres at 1 metre above ground level.

There are benefits and negatives to all sizes, for example, how easy they are to plant or how much water they need. So, it's good to know what your priorities and limitations are before picking your tree. The general rule is the smaller the tree the easier they are to plant and less water they need, but equally, the less fruit they will produce at the start (but they will catch up later).



Whips Light Standard Standard

Chart shows some of the names given to the heights of trees when sold from a nursery.







Roots

Trees are also sold by how they have been grown and therefore what their roots look like.



Rootstocks

Rootstock is the measure in which you can control the trees overall growth and performance, which in turn, influences fruit quantity and quality. Fruit trees grown from rootstock tend to produce fruit much quicker than waiting years to grow from a seed.

Which rootstock you choose will depend on your site conditions and available space. Vigorous rootstock is good for areas that may have less than ideal conditions. Below is a breakdown of the terms frequently used.





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Root Stock Type	Final Height	Details
Apple		
M25 – Very vigorous	Up to 5m	Grow as full or half standard. Ideal in poorer soil in exposed sites. Space trees 7-10m apart.
MM111 – Vigorous	Up to 4m	Grow as standard or half standard. Tolerates wet ground and has good disease resistance. Space trees 6-10m apart.
MM106 – Semi vigorous	Up to 4m	Good for half standards, espaliers, cordons. Space half standards 5- 6m apart.
M116 – Medium	Up to 3m	10% less vigour than MM106. Space trees 5-6m apart.
M26 – Semi dwarf	Up to 3m	Requires staking. Used for bush trees and cordons. Space bush trees 2-4m apart.
M9 – Dwarf	Up to 2.5m	Needs permanent staking. Makes good bush and cordons. Space bushes 2m apart.
M111/M9 – Dwarf	Up to 2.5m	A combination of a vigorous rootstock and a dwarfing rootstock.
Pears and quinces		
Quince C - dwarfing	2.5m – 3m	Needs permanent staking. Makes good bushes and cordons. Space bushes 3m apart.



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Quince A - semi- vigorous	3m - 4.5m	Requires staking. Good for bush trees, cordons, half-standard, and espalier. Space bush trees 4-5m apart.
Plums, gages, damsons		
Pixy - semi-dwarfing	3m – 4m	Needs permanent staking. Suitable for cordon or small bush. Space 4-5m apart. Needs light or loamy soil.
Saint Julian A - semi- vigorous	4.5m – 5m	Requires staking. Good for half standards, bush, and fan trained. Space 5m apart. Can tolerate heavy soils.
Torinel - semi-vigorous	2.5m – 3m	Requires staking. Can be half standard, bush or fan trained. Space 4m apart
Cherry		
Gisela 5 or G5 - semi- dwarfing	2.5m – 3m	Requires permanent staking. Can be bush, pyramid or fan trained. Space 3m apart. Needs light or loamy soil.
Colt - semi-vigorous	5.5m – 6m	Requires permanent staking. Good for half standards, bush, and fan trained. Space 6m apart. Can tolerate heavy soils.

For more information on root stocks visit: <u>Rootstocks for fruit / RHS Gardening</u>





Chart above shows approximate final size of the tree with different root stocks once it has reached its final growth height.

Apples are the easiest fruit trees to manage, but if desired you can try including other fruit trees like pear, cherry, quince, and plum. These other fruit trees will need more care when selecting varieties, planting, and when growing – so make sure you consider this when choosing how many to plant.







Below is a breakdown of what you may see when purchasing fruit trees- this example is for apple trees:

Final growth height and amount of apples produced Egremont Russet Apple Tree: BR - Vigorous - Rootstock M106

Type of apple

Type of root (Bare Root)

Pollination groups

Fruit trees **must** get their flowers pollinated by invertebrates (bees, butterflies, moths, etc.) to grow fruit. Each fruit tree will be placed in a certain pollination group based on the time of year it flowers in.

You can increase the likelihood of pollinating your trees' flowers by planting trees with corresponding pollination groups – thereby increasing the amount of fruit you harvest!

For example, the Arthur Turner fruit tree is in Pollination Group C. So, to optimise pollination (and maximise fruit) you would plant another fruit tree in the same pollination group (C), or one above (B) or below (D) it.







Triploid trees

Some trees are unable to pollinate other trees or themselves as they have totally sterile pollen. These trees are called Triploid trees. This means that a triploid tree needs another tree to pollinate it, and that other tree also needs a pollination partner, since the triploid tree cannot return the favour.

The Bramley seedling apple tree is a good example of a triploid. To pollinate a Bramley seedling (and therefore produce fruit), an orchard would need to give it a pollination partner in group D, C or E (like Belle-De-Boksop), and that partner tree would also need a pollination partner (like Arthur Turner). In total you would need three trees for the Bramley seedling to produce fruit successfully.

Local fruit tree nurseries

- <u>Embley's Nurseries, Much Hoole, Preston,</u> stock Frank Matthews trees.
- <u>J.A Jones & sons</u>, Banks, Southport.
- <u>Bannister Hall</u>, Preston

Regional fruit tree nurseries

- <u>R.V. Roger.</u> Pickering North Yorks.
- Frank P. Matthews Tenbury Wells.
- <u>Thornhayes Nursery</u> Cullompton, Devon.
- Blackmoor Nurseries, Hampshire





3. Design and plant your orchard.

Once your trees are in the ground, they will hopefully be there for long time, so careful planning is needed. **Creating a map will help you to calculate how many trees you can fit in your space.** It can also help you see which areas get the most sun, avoid planting to close to other features like buildings, as well as keeping your planting day organised.

We recommend 5m² to 7m² spacing around each tree. If you use large equipment to cut grass, use the larger boundary size. See the example below to help work out how many trees you can fit.

The pit

Always dig a square shaped pit. This shape provides angles for the roots to get stuck into. The pit should be 2×2 spade widths minimum, double this on heavily compacted soils – like clay. The pit should be dug to at least one spade's depth and it is important to break up the underlying soil with a fork.

The pit should accommodate the root ball *without* the roots having to be squeezed in or bent up the sides.

When planting your tree make sure the graft point (where the rootstock meets your fruit tree) is well above the soil level when finished.





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A couple of handfuls of sterilised **bone meal** or **fungal root grow helps root establishment**, mix it in the soil when back filling the planting hole.

Mulching

A generous layer (8-10cm thick) of mulch should always be added. This should form a 1 meter diameter circle around the tree. Try to leave a gap around the base of the tree stem as the mulch can lead to it rotting. Wood chip from hard wood species or old Christmas trees makes a good mulch, as does wellrotted compost. A layer of mulch helps keep soil moist and prevent competing weeds.

Read more about mulch here.

Guarding and protection

Vandalism by humans causes the most damage to young urban orchards. Guarding can help prevent this as well as accidental damage from strimmers. The type of guard you use depends on your site. Do you need heavy mesh? Or are there other structural barriers in place you can use? Adjacent is an image of a community orchard in Chorlton Park, Manchester that planted 40 fruit trees in an unused bowling green.

If you think vandalism may be a problem in your area, we recommend heavy gauge wire mesh guards and 2 sturdy posts. The guards are then reduced as the trees grow to allow room for branches to spread.









There are other forms of protection you may like to use if you feel your site doesn't need the heavy mesh. Spiral tree guards are predominantly used to protect whips and maidens from deer and rabbit. We recommend using biodegradable ones – not plastic.

Check out <u>this handy guide</u> from Tree Council on what type of protection is best for your trees.

Staking your fruit trees

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Stakes should be driven into position within the hole before planting the tree, not after. This is to ensure the stake doesn't damage any of the roots.

Stakes should be located so the prevailing wind, mostly westerly in Lancashire, blows the tree away from the stake and not onto it. The tree should be positioned so the branches do not foul the stakes, causing damage.

Whether you should use one or two stakes depends on your orchard area and the constraints you might face. A single short stake is generally suitable for smaller size trees, but doubles should be used for larger trees and in areas that might suffer from vandalism.

Whichever you chose, we recommend hessian ties to secure your tree. Ties should be fitted halfway up the stake and should keep the trunk or main stem straight. Don't worry if the top of the tree seems lopsided, this should straighten out as the tree grows.











Some ties may need a small nail or staple hammered through them to stop them slipping down the stake.

For more information on planting, guarding and mulching please visit any of the links below:

- Planting your orchard The Orchard Project
- How to Plant Trees Plant Trees Woodland Trust
- Watch: How to plant trees and hedgerows The Tree Council
- Fruit basics how to grow fruit / RHS Gardening







4. Look after your trees

Watering fruit trees is an essential part of orchard care, and urban trees require adequate water to combat the 'urban heat island' effect. It is vital that you ensure your trees get the water they need, especially for young trees that are just getting established.

For newly planted trees, we recommend approximately 20 litres per tree per week. You add to this further by introducing deep-rooted plants close to the base, like comfrey which will also enrich your soil with a variety of essential nutrients.

When and how much water?

For more established trees, we recommend watering every 2-3 weeks. The amount of water will depend on the weather and your tree's preferences – the best way to determine how much is to spend plenty of time in your orchard, noticing how the trees respond to the water you're providing.

We recommend collecting rainwater and ideally planting close to a water tap. Transporting large amounts of water can be difficult work, so it might be worth looking at tools like H2go. It is a water bag designed to sit in a wheelbarrow and can be filled up and emptied through a spout by simply tilting the barrow forward.



The H2Go in action.





Perfect Pruning

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A quick guide to Pruning.

Why prune fruit trees?

There are lots of ways to shape fruit trees depending on the priorities of the grower and the space available, but pruning is not just about pretty forms. Pruning can help trees to fight off infections by allowing for good ventilation and should encourage your trees to produce more fruit.

When to prune

Generally, prune pip fruits (apples and pears) in the winter and stone fruits (plums, cherries) in the summer. However, there are times when you prune apples in the summer, <u>read</u> <u>more about summer pruning here</u>

For more information on pruning fruit trees take a look at the links below:

- Pruning Fruit Trees in Winter | BBC
 Gardeners World Magazine
- Apples and pears: pruning made easy / RHS Gardening
- When to prune apple and other fruit trees Woodland Trust

Cut the main leader to 10 inches
Cut back strong branches to half their length
Cut back other branches to one third of their length

- Keep 3-5 primary branches

Using the right tools: Long handled pruner

Two bladed secateurs

Pruning saw





5. Pick the fruit, make the pies!

- Apple pie recipes BBC Food
- Easy apple crumble recipe BBC Food





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GLOSSARY

Root Stock

Many fruit trees are grafted onto other roots from a different plant to force the fruit tree to display certain physical characteristics – like a stay a small or dwarf size or fast/vigorous growth.

Self-fertile

The fruit tree can use its own pollen (brought in by pollinators) to fertilise itself and produce fruit. A self-fertile tree won't need other fruit trees to produce fruit – but they may not produce as much.

Cross Pollinate

The fruit tree can use pollen from other fruit trees (brought in by pollinators) to fertilise and produce fruit. Its pollen can also be used to pollinate other fruit trees.

Triploid

Triploid trees have totally sterile pollen: they cannot pollinate themselves or other trees. They can only be pollinated by other trees. This means that a triploid tree needs another tree to pollinate it, and that other tree also needs a pollination partner, since the triploid tree cannot return the favour. The Bramley seedling apple tree is a good example of a triploid.

Pollination groups

Pollination groups represent flowering periods. A fruit tree can cross-pollinate with any tree in its own group or a group next to it on the table. For example, a tree in group B might cross-pollinate with trees in groups A, B, and C - that's nearly all of them!

Note that pollination group letters are interchangeable with numbers, so pollination group A is the same as pollination group 1.

