



Creating a network of local food production in the Scottish Borders

Structure of a Forest Garden

Robert Hart is credited with having one of the first forest gardens in Britain and inspired Bill Mollison, one of the founders of Permaculture, to integrate it into the permaculture way.

This approach apes natural woodland while producing many more edible species. So we would see many more trees than in the conventional suburban garden. We are trying to attract as much wildlife as possible and would expect to see different species of plants happily co-existing in close proximity, ensuring that there is little or no bare soil. In this model the ground is fertile because of what and how we are growing and needs little help in maintaining a healthy eco-system.

The forest garden is ideally based on seven layers:

1. The **canopy layer** i.e. trees about ten metres high and as a result many small forest gardens are not able to plant this layer. If the trees are needed for fuel sweet chestnut, birch and willow can all be grown, if there is space, and hazel for nuts.
2. The next is **small trees and large shrubs**. The trees that you would plant for this layer are those that provide you with your top fruit: apples, pears, plums, damsons, cherries, medlar, etc. You could also have hawthorn and lime trees, for their edible leaves. With the lime you would keep it coppiced to make it manageable.
3. The third layer is **shrubs** up to three metres high. This would include bush varieties of fruiting shrubs including blackberry, black, red and white currants and blueberry, gooseberry, raspberry, jostaberry and worcesterberry. Some of the non-fruit shrubs also including elder, bamboo, bay and bog myrtle as well as many others.
4. Next are the **herbaceous and evergreen plants** which can be as small as a few centimetres and can merge with the ground-covering layer up to three metres. There are numerous plants which come into this layer and because of the diversity it is worth remembering at this point that we want to grow plants which have more than one use. The uses can be many and apart from the obvious edible plants, they can also provide us with fuel, soap (soapwort), dye, poles and canes (hazel, bamboo) and have medicinal properties too. Plants like comfrey have medicinal properties, can be used as a liquid feed because it provides nitrogen, phosphorus and potassium as well as high levels of calcium. It can be used as a mulch and the flowers used in salads. Many of the plants in this layer have given way in recent times to annual vegetables but are making a comeback. Examples are chicory, fennel, globe artichoke, lemon balm and sweet cicely to name just a few. However, we will also have peas and beans, in this layer, albeit they are annual crops.

5. **Ground-cover plants and creepers** make up the fifth layer and are shade tolerant perennials and low creeping shrubs. These plants are often particularly good for the soil but can also be edible, as well as keeping more invasive species at bay. Strawberries are a good example of a plant which is also edible, including the alpine variety, small but delicious in this layer. Brambles too, as well as nasturtiums, clover, creeping thyme.
6. Then the **climbers, perennial or shrub** use the layers to climb potentially up into the canopy (except possibly not in our colder northern climate). However, we can grow hops, honeysuckle (for the wildlife) and possibly even squash which can take up a lot of space if left to grow on the ground. Peas and climbing beans can also be grown through existing vegetation, as can brambles.
7. Finally, the **underground** layer which importantly for us in the northern hemisphere includes root crops. In our climate root crops are an important part of our harvest, even though they have to be dug up to harvest, something that we would normally be trying to avoid in our permaculture garden. However it is also where we would grow mushrooms.