



### Chairman's Comments

**Membership Renewal.** Enclosed with this Newsletter is a form which we would ask you to use when renewing your membership. If, you have chosen to renew your membership by Direct Debit then please use the form to correct any changes in your details if necessary. Members who have joined since 30<sup>th</sup> September who are not required to pay the 2019 fee will receive this by email.

We remind you that we have held membership fees unchanged for nearly 10 years. All that we ask is that those members receiving their Newsletter through the year by surface mail make an additional contribution for the postage, which with ever increasing postage charges, now accounts for over 50% of the membership fee!

On payment of the 2019 subscription you will be sent a membership card with the programme details. Details of our first meeting in 2019 are given below. The February meeting includes the AGM but may I remind you of the March meeting on 12<sup>th</sup> in which Aljos Farjon will talk on Ancient Oaks in the English landscape at the University Centre, Frankwell.

### Our last talk by John Tuer on "Looking after your garden trees. 11<sup>th</sup> December

Several new members as well as a number of visitors who had learnt about the talk through our various publicity efforts joined members for this popular talk by John. He has given this talk to gardening clubs throughout the region for a number of years and first gave it to members some ten years ago.. So popular has it become that one member present heard it for the sixth time!

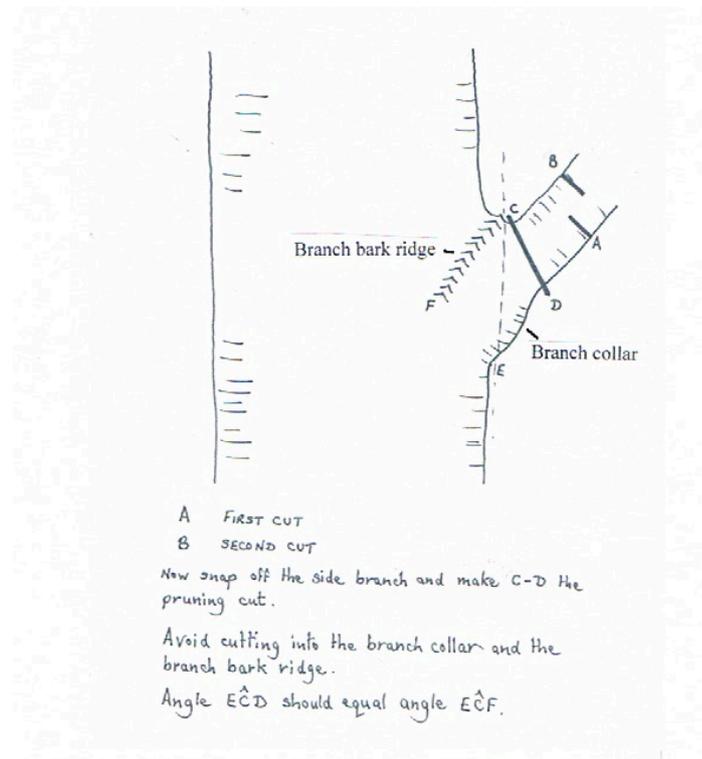
John began his talk by going over some of the important points Tony Russell made in his talk about planting larger trees. Fortunately he agreed with everything that Tony had said (!) but added one useful point. Never plant trees into a circular pit; this encourages roots to spiral. Plant trees into pits with corners where roots will be forced outwards.

Then using a series of over-head clear self-prepared transparencies John began by explaining the biology of a tree showing the areas of dead and living wood and how water and nutrients are conducted upwards by the xylem whereas the products of photosynthesis from the leaves are conducted downwards by the phloem which is protected on the outside by the bark. The cambium at the interface of xylem and phloem is the active layer of cells which lays down large xylem vessels cells on the inside and phloem cells on the outside. Later in the year in some species, the xylem cells are smaller which in ring porous species results in annual rings which when counted at the base of a tree gives an idea of its age. Other species of trees show no differences in early and late xylem vessels and are called diffuse porous/

John showed us a cross-section of a leaf lamina and explained how CO<sub>2</sub> is taken in and with water and the sun's energy is converted into carbohydrates of several forms (cellulose, starch etc) and the oxygen which is so vital for animal life. As long ago as 1877 a German scientist E. Askenazi put forward his idea of the potential energy stored in a tree. This has stood the test of time and it concluded that when a tree is using up all its energy in laying down new growth, there is none left for wounds left by pruning to be repaired. Therefore pruning should be carried out in the dormant period. Askenazi's ideas were further developed by the American Alex Shigo who is best known for introducing pruning principles which were initially accepted by authorities in the USA but in the 1980's were introduced into the UK and have now been adopted into the British Standards.

The following diagram prepared by John and based on these standards shows very clearly how pruning should be carried out. The reporter for one has to admit that he has not always managed to prune exactly like this – but now has no excuses! The important thing is to identify the branch collar, which sometimes can be very distinctive but not always but which can usually be detected by passing the hand up the stem and on to the branch. The hand can sometimes detect a bulge which the eye does not. The other feature to recognise is the branch bark ridge.

When branches are pruned correctly the bark at the cuts has the ability to grow callus wood and produce a complete circle of callus wood. If the pruning cut has removed some of this active bark the callus wood will take the form of an open circle. It is important not to leave a branch stub as the callous will not form at the cut and infections could enter.



Even a very vigorous healthy tree should never be reduced by more than 30% of the branches supporting the canopy. For ancient trees this figure is far too great; A small annual prune allows the tree to come to equilibrium before the next pruning.

Young trees must be pruned in early life to ensure that they take on the right shape. This is called formative pruning and can involve removing lower branches and epicormics branches which can sprout at any time from the centre of the stem as well as branches that cross each other. Probably the most important formative pruning is one that ensures that large V shaped forks do not develop in the main stem. If they are allowed to grow large and support heavy foliage they can break apart in high winds or under heavy snow and allow infections to enter.

John's talk was very well received and generated a number of questions. One questioner asked if there was any secret about planting oaks as in his experience they always produced lateral branches rather than vigorous leaders. He wondered if there was any merit in the French technique of allowing newly planted oaks to grow without pruning for three years before being cut back to ground level, whereupon straight vigorous shoots well over 1 metre grow in the first year. John thought it might well have to do with the time it takes for a mycorrhiza specific to oaks to develop around the newly planted roots. For difficult species like oak John recommended adding a proprietary mycorrhiza mix to the planting pit.

Thank you John for an excellent and enthusiastic talk. It was definitely worth while asking you back!

**Our first talk of the New Year: Tuesday, 8<sup>th</sup> January – Mark Duffel on “Identifying Conifers”**

Many of you will remember that Mark visited us in January 2017 to give us a presentation on how to identify broad-leaved deciduous trees. This time, he will do the same for conifers. If this presentation is as good as his last, you'll be in for a well-spent evening. Mark has an excellent knowledge of trees and his ways of helping us identify the different species will be very memorable.

This talk will take place in the St Peter's Parish Church Hall on Monkmoor Road, Shrewsbury beginning at 7.30pm. If you have a favourite hand lens for examining foliage close up please bring it along as mark will bring fresh specimens for us to examine.