ORCHARDS EAST

RECORDING CONSERVING CREATING

July 2019

Welcome to our regular bulletin with the latest news from our 3-year Heritage Lottery funded project in Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk and Suffolk.

Plum and Cobnut Day

When: 10th August 2019 10.00 am to 4.00 pm
Where: Home Farm, Great Green, Thrandeston, Suffolk IP21 4BL
Directions: This event is in a barn belonging to Orchard East's Co-Chair Paul Read. The farm lies off the A140, approximately 3 miles NW of Eye. There is parking close by in a field (portaloo available). The post code in Satnav should bring you to the parking field gate entrance, and there will be notices along the lane.

Drop in any time during the day to see a display of plums, gages, damsons and other stone fruits, cobnuts and filberts, and bring any of your plums or cobnuts you would like identified.

Purple Pershore plum

***Left**: Display of cobnut varieties at a Suffolk Traditional Orchard Group display at Wandlebury, Cambs. At this green stage when the kernals have just fully swollen to fill the nut, they are in the ideal condition to eat green.*
***Right**: This cluster of the old English cobnut variety Prolific Closehead (of unknown origin) had 16 nuts, but 30 is not uncommon. This variety still exists as a large old stool in a nut "plat" in Sutton, Suffolk.*

For identification, please bring **at least** 5 examples of ripe, (preferably not over-ripe) fruit or nut clusters with their stalks and a small twig with some leaves. We would also value knowing what you do with the fruit or nuts - eat raw or cooked for example - and a photograph of the tree is always helpful. In the case of cobnuts, they will still be green, but in mid-August the kernel should be fully grown, and edible as a green nut, which is how they were often sold in the past. You can always keep early fruit in a refrigerator to preserve it until August.

Fruitid (see www.fruitid.com) is adding plum and cobnut identification to their website. The Plum and Cobnut Day will be an opportunity to demonstrate the range of these crops in the region (and offer an opportunity to taste them). Identification of these two crops is in its infancy; we are all still learning ourselves; and we also realise that there are many varieties grown in Britain, of both species, that are not yet properly described.

Food Historian and Cook, Monica Askay, will be there providing opportunities to taste some gin. Visitors can walk a 1.3km permissive footpath around this part of the farm, which also features a 12 year old orchard. (Dogs welcome, but on a lead, please).

Please come along to visit us!

Coe's Golden Drop *A seedling found in Bury St Edmunds, Suffolk in the late 18th C, this plum was said to be the most delicious plum ever by gourmets in the 20th C. Unfortunately it rarely crops well in the UK before the winter arrives! It does much better in California or a greenhouse.*

Sulphur Polypore

Sulphur polypore *Laetiporus sulphurea* (a basidiomycete fungus) is also called more interestingly Chicken-of-the-Woods in the UK and Crab-of-the-Woods in the USA because of its taste. It has a very rich flavour and is usually eaten in small quantities, so a large one could feed a family for a week.

In the UK it's an orchard speciality, found on many trees, but particularly on Rosaceous trees such as cherries and plums and, less commonly, on apples.

This example of Sulphur polyore is in Bob Lever's orchard in the Norfolk fenland on an exceptionally large Purple Pershore plum.

Sulphur polypore causes cubical brown rot in the heartwood only of the tree trunk and roots, so is restricted to central dead wood. It doesn't kill trees and can live for many years producing a new fruiting body like this almost every year, progressively hollowing out the tree. It has an open appearance when growing fast in wet conditions; in drought years it grows in more densely packed layers.

Its cultivation is being developed in Poland and Germany for producing both an edible crop and for the extraction of antibacterial compounds. In 2013, a Polish paper reported the successful initiation and development of *L. sulphureus* fruiting bodies in large-scale experiments. The method of cultivation presented in the paper opens the way to commercial production of this valuable fungus.

Reference: Successful large-scale production of fruiting bodies of Laetiporus sulphureus (Bull.: Fr.) Murrill on an artificial substrate. Pleszczyńska M, Wiater A, Siwulski M, Szczodrak J. World J Microbiol Biotechnol. 2013 Apr;29(4):753-8

Looking after winter grafts of fruit trees

Most grafting is carried out in winter or early spring when the rootstock is about to start growing and the scion is quite dormant. This is because it will have been kept in cold conditions or stored in a refrigerator. The advice below applies to any other winter graft too.

1. Plant the tree as soon as possible into well drained soil compost in a 3L pot. Tall pots are better than short ones due to the length of the root. I find a soil based compost is better than soiless compost, bark, or peat compost as it retains moisture longer and its weight make the pots more stable.
2. Place the pot outside in a sheltered position, in a frame or a polytunnel, and water well. However, plum grafts take better in higher temperatures (of about 20^{o}C) for about two weeks and then being placed outside. Commercially, some nurseries rest plum grafts on a (slightly!) warm pipe for a week or so. I do think this helps, but it may not ensure a graft where one was never going to happen!
3. Water regularly… and wait. Remove any weeds.
4. If buds swell and break from the rootstocks rub these off. There seems to be no benefit in leaving them to grow in the case of winter grafts.
5. In April, buds on the scion may start to swell. Continue to do nothing, until you see exactly what and which buds are growing. Remove any weeds.

6. If flowers appear from buds, snip off the flowers, leaving any leaves at the base of the inflorescence to grow. Every leaf left on the scion will contribute to its growth.
7. It may be a good idea to select one expanding bud as a leader. Some grafters select this very early and rub out other shoots. I prefer to wait until at least mid-May to decide which shoot should become the leader, and sometimes it is best to wait until later with a slow grower.
8. If the selected leader is growing straight upwards, nothing more needs to be done. If the one you select isn't straight, it can be tied to a cane or to the rest of the stem. Remove any weeds.
9. Don't take off side shoots as this removes leaves that are the only source of growth.
10. Graft tape can be removed on a strongly growing graft from about late May and on weak growth during August/September, especially if it's on a weak scion from an old tree. Remember that removing the tape will expose the graft junction which may not have fully hardened, and there is a risk that the junction will dry out. Removing the protection too early may risk a knock breaking the junction and it definitely slows the growth of the scion for a while.
11. *If in doubt wait another two weeks*! And if, when you do unwind the wrapping you find the junction looks pale green and spongy, it might be better to rewrap and wait awhile!

So to summarize

- Always rub off shoots from the rootstock as early as possible, and frequently.
- Don't rush to unwrap the graft; once bare it's fragile and vulnerable to knocks and drought.
- Select the leader as early as possible by tying it into an upright position, rather than cutting off side shoots.
- And don't be in hurry to remove side shoots from the scion, every leaf is providing growth, leave that until winter.

Four potted apple grafts, all the same cultivar, in November 9 months after grafting, showing how variable growth can be, largely depending on the choice of graft wood, the precision of the contact between graft and rootstock and any drying-out of the graft. The wrapping has only just been removed from the graft on the left!

A whip and tongue graft in the winter following grafting, i.e. about 9 months old. The pale green callus material that joins the two pieces of wood has now lignified and the join is secure. The z shape of the junction is still discernible.

American Elm *Ulmus americana* in *Kew Gardens. This ugly graft scar could have been avoided if the graft had been made closer to ground level!*

Biodiversity Surveys

Orchards East has started a biodiversity survey of a selected number of orchards across our region, surveying, principally, the features of orchards that make the habitat so characteristic - their trees.

Pears, apples, plums are all members of the flowering plant family Rosaceae, which are very different from our native woodlands of oak, ash, beech, hornbeam etc. Only hawthorn and blackthorn (sloe) are common native trees in woodand that are also Rosaceae. As a result, the wildlife in, on, and around our orchard trees, from aphids to galls and wood boring beetles to wood rotting fungi, are highly specialised species restricted to these trees alongside a mixture of generalist species.

So it is the trees we are concentrating on, in particular the many invertebrates that depend on these trees for food and habitat and also the epiphytes, mosses, lichens and others that live on the trees. Invertebrates may eat the trees themselves, the fungus that decays the trees, or predate other animals living on the trees.

About 70 different orchards in the region were considered for surveying, from which 20 are being surveyed in various ways. Selection criteria included

assessing the age of trees; location across the 6 counties; species of trees and the purpose for which they were created; farmstead sites (the most frequent reason); grand parks, institutional orchards; community sites; old nursery orchards; and commercial sites, but with an emphasis on traditional trees, and unsprayed sites.

The project started in spring this year and continues to the end of the project in August 2020. It commenced with an exercise in trapping flying insects that are closely associated with the trees, and a detailed invertebrate surveying of their leaf, wood and fungus eaters, and their invertebrate predators.

This winter epiphytes (mosses, liverworts and lichens on the trees) will be surveyed, and throughout the whole project an overall picture will be constructed of each orchard, its hedges, ground flora, general setting and history. More will be revealed in later newsletters!

An interception trap set up in an orchard at Tewin, Herts being surveyed for invertebrates by Colin Carpenter, one of our surveyors.

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HERITAGE FUND

University of East Anglia