

# ORCHARDS AT HENFAES

CALU DEMO FARM  
FACTSHEET  
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## INTRODUCTION

Pruning is an essential tool in orchard management through all stages of the fruiting trees' lives.

Early formative pruning ensures the tree develops in the way best suited to the production system it is in.

Regular maintenance pruning sustains fruit production for many years. It can be used to influence the shape of the tree and to determine whether the tree's energies are focused principally on fruit production or wood production

Restoration pruning is a special skill, much needed in Wales due to the high number of derelict or semi-derelict orchards. Restoration pruning can bring old orchards back into production, or, if the trees are beyond saving, restoration pruning can help to produce fresh young wood from which to propagate new trees of the same variety.

On 2<sup>nd</sup> March 2010, CALU, through the Farming Connect funded Land Management Knowledge Transfer Programme, held a pruning workshop at the Henfaes Research Centre, nr Bangor, in north Wales. The workshop was led by Ian Sturrock. Ian has been working with fruit trees for more than 30 years. He is probably best known for reviving the Bardsey Apple, but he also works extensively in orchard establishment, management and remediation.

Henfaes Research Centre has a range of fruit trees of various ages. These provided the field material for the workshop. In the new orchard, 20 apple, plum and pear trees have been planted; in the Forest Garden there are a range of trees from year old to middle aged, including plums, pears and apples; and in the old walled garden, there is a semi-derelict apple orchard.

## THE NEW ORCHARD

The first trees in the new orchard at Henfaes were planted in November 2008. Eight apple, two plum and one pear tree were planted. Locally sourced varieties were used in the hope that they will be well suited to the conditions at Henfaes.

The site has a reasonable degree of shelter from all directions provided by a combination of tall hedgerows, mature trees and buildings. The soil is a very freely draining silty loam with a high proportion of cobbles and boulders. The area had previously been used for grazing. To prepare the site the grass was sprayed off with glyphosate and then cultivated. The area between the trees has been re-seeded with grass. The trees were planted in a triangular pattern at a spacing of 5m.



Cronfa Amaethyddol Ewrop ar gyfer Datblygu  
Gwledig: Ewrop yn Buddsoddi  
mewn Ardaloedd Gwledig  
The European Agricultural Fund for  
Rural Development: Europe Investing in  
Rural Areas



Centre for Alternative Land Use  
Canolfan Ddefnydd Tir Amgen



Llywodraeth Cynulliad Cymru  
Welsh Assembly Government

Each tree was protected with a spiral guard and was staked. During the first year, two trees were lost to the combined efforts of rabbits and voles which completely barked the young trees.

In Autumn 2009 an additional eight trees were planted. The plan is to continue expanding the orchard with new trees as funding permits.

In this area, Ian demonstrated the techniques used in formative pruning to ensure that the shape and structure of the tree is optimised for fruit production and picking.

#### **THE WALLED GARDEN & DERELICT ORCHARD**

The walled garden dates back to the middle of the 19<sup>th</sup> Century. The southerly wall of the garden used to carry the water from the Afon Aber which powered a water wheel alongside the house. The walled garden was the principal fruit garden for the house and contained a diverse range of bush and currant fruit along with apple and plum trees. The garden had not been actively managed for more than 15 years. During this time, the area has become heavily invested with brambles. These have grown all through and over the fruit trees. Consequently, the trees have struggled to find light and adequate food. New growth has been limited to very stunted extension of the most terminal branches. Lower down the tree there is evidence of quite severe woolly aphid infestation.

The programme for restoration of this area is two fold: scion wood has been taken from the trees which are probably beyond saving. This has been grafted onto M26 rootstocks. These new trees will be used to replace the old, thus maintaining the same varieties. Restorative pruning techniques are being used on the trees that are thought to be saveable. This focuses on regenerating the trees, without taking out so much old wood that the trees will die from shock.

The undergrowth is being controlled mechanically, with twice yearly heavy strimming / trimming to prevent the brambles re-establishing their hold on the trees. Unwanted species of other trees in the garden (e.g. ash, sycamore and elder) are being progressively removed. Ultimately, it is hoped that the walled garden will have around a dozen productive fruit trees.

#### **THE FOREST GARDEN**

The Forest Garden has a diverse range of fruit and nut trees, including apples, quince, pears, almonds, medlar, walnut and sweet chestnut. This area is managed and run by the Bangor Forest Garden – a not for profit organisation.

The aim of the Forest Garden is to demonstrate the principles of permaculture / forest gardening. In these systems, consideration is given to the whole system and its vertical space and structure. Trees form the canopy, with shrubs and cane fruits beneath, and ground layer plants beneath that. Ian Sturrock is actively involved with the on-going management of the garden. During the workshop he explained the way varieties of fruits have been selected for the Forest Garden, how the rootstocks have been chosen and what is involved in their on-going management.