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**CALU's subject areas:**

- Horticulture
- Bio-energy
- Arable crops
- Non-food crops
- Alternative livestock

**CALU Events for 2009**

CALU's annual season of events runs from the 1<sup>st</sup> of June to the 31<sup>st</sup> of May each year. Over the past few months we have been busy meeting potential hosts for open days and putting together our programme of events for 2009.

We have three 'Development Farms' funded through Farming Connect, each holding two events for us a year.. Our Development Farms are linked to educational / research centres and can provide the most up to date advice on topics. Our Development Farms are: **the Welsh College of Horticulture** at

Northop; **Henfaes Research Centre** at Bangor Uni and **Plas Gogerddan**, at IBERS Aberystwyth

The first event at the Welsh College of Horticulture this year will look at management strategies for pests and diseases in edible horticulture production systems. The second event will investigate issues related to soil management – for example how to carry out simple soil tests, and how to interpret and act on the results. This event will also consider the issue of peat in horticulture and look at the benefits and disadvantages of a range of peat alternatives.

In addition to the Development Farms, Farming Connect also funds a range of workshops and open days at commercial sites throughout Wales. Topics we will be covering at these include: seasonal turkey production; woodland establishment and management; quality assurance in horticulture; and vineyard establishment and management.

Information about all future events will be published on the CALU website - ([www.calu.bangor.ac.uk](http://www.calu.bangor.ac.uk)) and mailed or e-mailed to people who have registered

**Market Gardening at the Welsh College of Horticulture**

Phil Handley took over the market garden at the WCoH in September 2008. His challenge is to increase the range of crops produced and establish a viable fruit and vegetable business. The production area is just over a hectare of land and includes: six polytunnels; fruit and vegetable beds; and an established orchard. Phil also has access to a large glasshouse which is used for winter crop production and the propagation of seeds and cuttings. The clay loam soil allows for a range of crops to be grown on the site .

The Welsh College of Horticulture hosted an open day for CALU on the 18<sup>th</sup> March 2009, the event started with a tour around the market garden including the polytunnels, followed by an afternoon session on business planning and funding opportunities.

It is early days yet for Phil, but he is optimistic that the venture will succeed. We will be following Phil's progress over the coming months. There will be two further events at WCoH during 2009 and an update on Phil's Farm will be part of these.

## Gooseberries

Gooseberries are a traditional crop that has recently enjoyed something of a revival. The berries are ready in July and last on the bush well. This means the picking season can last for a month or more. The berries can be harvested as a once over crop or selectively picked to catch the early season market.

Gooseberries are well known by the public and are versatile in the kitchen. Green culinary varieties such as 'Invicta' and 'Careless', are very easy to grow and yield well. Red varieties are less common, but have a novelty value and can command high prices.

At Henfaes CALU has planted two varieties of gooseberry, the dessert 'Whinham's Industry' and the popular 'Careless'.



To get a copy of the CALU fact sheet on growing gooseberries visit the website - [www.calu.bangor.ac.uk](http://www.calu.bangor.ac.uk) or you can phone 01248 680450.

### DID YOU KNOW...

The Welsh Assembly has published a draft "Bioenergy Action Plan for Wales" for consultation. Visit [www.wales.gov.uk/consultations](http://www.wales.gov.uk/consultations) for more information. The closing date for feedback is 22nd May 2009.

## Biochar

Soil is one of the largest stores of carbon on land. Carbon is also stored in trees and vegetation. Usually, when these are burned the carbon is released into the atmosphere.

"Biochar" is produced through burning wood (or other biomass) in a controlled environment with limited oxygen. In this way, most of the carbon is retained in the charcoal rather than being released into the atmosphere.

Biochar is simply the name given to charcoal when it is used in agricultural production systems. When added to the soil, the carbon in the biochar is locked up potentially for thousands of years. There is also evidence that the biochar has beneficial effects on plant productivity. However these results, obtained in tropical countries, have not been tested under Welsh conditions.

Experiments in Australia, the US and Germany are finding positive results when biochar is incorporated in poor soils: the honeycomb granules act as a reservoir for moisture and fertilizers. In Germany they have been turning sewage into biochar, this process cuts the fuel costs and carbon emissions needed to treat the sewage and is described as a carbon negative process.

At Henfaes Research Centre Bangor, CALU's base, the first scientific trials have begun. The trials will last for three years and assess the effects of biochar on crop yields as well as soil physical and chemical properties. Early results will be showcased at a Henfaes open day this summer funded through Farming Connect. For further information contact CALU on 01248 680450 [www.calu.bangor.ac.uk](http://www.calu.bangor.ac.uk)



### DID YOU KNOW...

The new strategy for woodlands has been published. The full document, and a summary version, are available from the Forestry Commission website ([www.forestry.gov.uk](http://www.forestry.gov.uk))

# Suggestions for future CALU events

CALU is now planning events and workshops for the coming year. We welcome any suggestions you might have. The list below gives you a flavour of the diverse range of topics we have covered in the past. If you would like us to re-run any of these events, please let us know.

**Horticulture:**

- Soft fruit pruning
- Top fruit pruning
- Fruit tree grafting
- Greenhouse management
- Water management
- Herb production

- Propagation techniques
- Adding value to nursery stock
- Hardy nursery stock production and management

**Bio-energy**

- Miscanthus and other energy crops on-farm open days
- Bio-energy seminars
- On-farm energy audit workshops

**Livestock**

- Veterinary issues in meat goat production
- Bee-keeping workshops
- Marketing pig meat products
- Health & welfare in dairy goat

- production
- Turkeys / Chickens

**Woodlands**

- Adding value to farm timber
- Firewood production
- Managing woodlands for game birds
- Christmas trees

**Arable & novel crops**

- Novel crop demonstration sites across Wales
- Arable options for Wales
- Naked barley production and processing
- Arable farming and cross compliance requirements

*DID YOU KNOW...  
Honeybees communicate with each other by dancing, signaling the direction and distance of flowers.*

# Do bees protect crops from caterpillars?

Bees have been receiving plenty of publicity recently due to concerns over their declining numbers and the effects this may have on pollination and crop production. As well as pollinating crops bees also have the potential to protect crops from pests. Researchers in Germany have recently found that the flapping of bees' wings scare off caterpillars, resulting in reduced leaf damage. This result may be

due to the fact that many parasitic wasp species lay their eggs in caterpillars. However the caterpillars cannot distinguish between hunting wasps and harmless bees. Researchers believe that the caterpillars were sensing the bees' presence through tiny hairs on their bodies, which allow them to detect vibrations in the air. The researchers found that in plants that had not fruited, the pres-

ence of bees reduced leaf damage by about 60%. When plants had produced fruit, the caterpillars hid in the fruit and therefore the bees had much less of an effect.



# Green roofs

The new eco-friendly school Ysgol Y Graig in Llangefni on Anglesey, was built with a green roof designed and created by Bauder. Green or Living Roofs come in a variety of types depending on how deep the soil is, the amount of maintenance they need, and the type of plants they will support. They also have numerous benefits: they can be a

site for a diverse mix of mosses, lichens, sedums and wildflowers; bugs and insects tend to love them; they insulate the room below, keeping it cool in summer and warmer in winter; they act as sponges slowing the speed that rain runs off and reducing flooding; and they protect the roof's waterproofing from ultraviolet light making it less likely to leak.

CALU has produced a technical leaflet on green roof systems - [www.calu.bangor.ac.uk](http://www.calu.bangor.ac.uk)



## CENTRE FOR ALTERNATIVE LAND USE

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Supporting sustainable land use in Wales



## Forthcoming Events

**Thursday 26th March** — Fruit: Growing & Marketing, Nicholaston Farm, Penmaen Gower

**Tuesday 31st March** - Horticulture—specialist nursery production, Crug Farm, Caernarfon

**Tuesday 28th April**— Horticulture: Farm shop Diversification, Cae Melwr, Llanrwst, Conwy

**Tuesday 5th May**—Orchard Pruning, Primrose Organics centre, Felindre

**Wednesday 6th May** —Fruit & Vegetable Production, Pont Farm Foods, Bettws, Newtown

**Tuesday 12th May** —Constructed Wetlands: a solution for diffuse pollution? ADAS Pwllpeiran

**Saturday 16th and Sunday 17th May**— Smallholders Fair, Builth Wells

For more information about any of CALU's events, please contact us.

## About CALU

CALU delivers the Farming Connect Knowledge Transfer Development Programme for Land Management. The programme provides information to any business in Wales that is interested in:

- Horticulture
- Bio-energy
- Alternative Livestock
- Arable Crops
- Non-food Crops

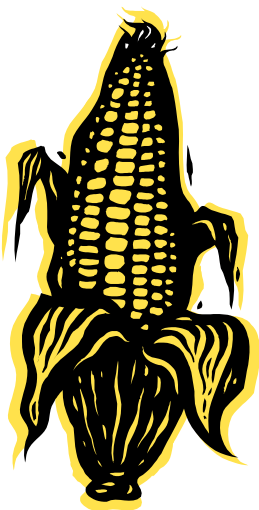
CALU has three dedicated members of staff and a network of associate specialists covering all the topics within CALU's remit.

### CALU ACTIVITIES:

- Open days
- Demonstration events
- Technical leaflets
- Training days
- Press articles
- Crop information sheets
- Project reports
- Talks
- Producer groups
- Agricultural shows
- Information booklets

### CALU PARTNERS:

- University of Wales, Bangor
- Welsh College of Horticulture
- ADAS
- Coed Cymru
- Coleg Llysfasi



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

