



CALU herb trials

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Over the summer, CALU has been running a series of trials with a range of different culinary herbs. We have monitored all aspects of production from sowing through to harvest. As we come to the end of the growing season, we now have a range of leaflets providing information on: pot herbs; directly drilled field grown herbs; and herbs that were transplanted into the field.

We have been pleased with the performance of all the herbs. The only one which was definitely not worthwhile was field grown basil.

The main problem which we had was rabbit control. Rabbits are particularly partial to dill and the allium (onion) family. However, they totally ignored coriander, so perhaps putting coriander around the other herbs would put the rabbits off – it's something we might try next year.

Economically, the herb indicating the greatest potential profit is directly drilled dill (around £25/m²). Margins on directly drilled herbs were better than those for transplanted plants. This was a combination of lower production costs and denser stands meaning faster harvesting and higher yields per unit area.

The final stage of the herb trials was to dry each type of herb and work out the ratio of fresh to dry yield, and the relative costings for that.

Ultimately, all of this information will be on our website and we hope it will help all aspiring herb producers to make well informed choices.

"the great thing about herbs is that you can make a return from a relatively modest area of land without needing to invest in expensive equipment"



The directly drilled herbs at Henfaes were put in with an old brush drill—a simple piece of equipment that drills the seeds whilst marking out the line for the next row at the same time. The brush drill (owned and demonstrated by Chris Creed) was a great attraction at the CALU herb day. Chris advised those interested in acquiring a brush drill to ask their local blacksmith to make one for them.

CALU's subject areas:

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

TB in Goats, Deer, Camelids and Pigs

DID YOU KNOW...

In 1934 at least 40% of the dairy cow herds in Great Britain were infected with bovine TB.

The problems of TB in cattle are well known. But TB can also infect goats, camelids (llamas, alpacas, etc.), pigs and wild and farmed deer.

Bovine TB (bTB) is a bacterial disease caused by *Mycobacterium bovis*. Cattle, buffalo and bison are the preferred host for bTB, but it has a very broad range of potential hosts – nearly all warm blooded animals can be affected.

Recently an increasing number of cases of bTB in pigs have been identified post mortem. BPEX has published two factsheets to help pig keepers minimise the risk of TB infection: *Health implications of bovine TB in pig populations* and *Biosecurity to reduce the risk of bovine TB in pig populations*. Both of these factsheets are available from the BPEX website—www.bpex.org.uk. As biosecurity tends to be high on pig units BPEX suggests that only minor modifications to usual biosecurity protocols will be required by the majority of pig keepers.

In goats and camelids, there have been cases of bTB identified in goat herds, including in Wales.

Camelids are a particular cause for concern as it seems that the disease can spread rapidly amongst camelids. Often, infected animals display few symptoms until late stages of the disease. This means infected camelids are a particular risk for transmitting the illness to other susceptible animals.

The Welsh Assembly Government is currently consulting on how it deals with bTB in non-bovines – specifically goats, deer and camelids (not pigs). The consultation is open until 11th November. A key part of the consultation is proposed compensation allowances for animals which are slaughtered as a result of TB testing. For full information please visit www.wales.gov.uk and click on the “consultations” link.

Milk from hemp

The company behind the “Good” brand of oils has launched the UK’s first hemp milk. The milk is made from crushed hemp seeds and is marketed as an alternative to dairy and soya milks.

The milk is a naturally rich source of the impor-



tant Omega 3 fatty acids. It is, apparently, easy to digest.

The milk, which is enriched with calcium and vitamin D, is currently being sold through Waitrose, and Waitrose’s on-line delivery partner – Ocado.

Hemp is a crop which grows well in Wales. It is great to see this innovative use of the seeds. Perhaps there is potential for somebody to do the same in Wales.

Hemp milk is made by grinding hemp seeds, mixing the ground seeds with water, and then straining. There is a long tradition of making vegetable “milks” in this way – soya milk is one example, there are also quite well established brands of oat and rice milks. Less well known are almond and chufa (or tiger nut) milk. But they are all based on the same principles.

DID YOU KNOW...

Hemp is a low input crop that grows well in Wales. A dual purpose variety of hemp can be expected to yield around 1.5t of seeds and 1.5t of stems per hectare.

Hemp grown for seeds or fibre contains negligible psychoactive substances and has to be licensed by the Home Office.

Orchard workshops

CALU's annual series of orchard workshops begins in October with workshops providing a general overview of orchard management from establishment through to harvest. These workshops also look at basic primary processing of fruit to produce, either juice or cider. These are ideal added value options as they produce a product that both commands a premium price and has an improved shelf life.

Subsequent workshops will focus on specific aspects of orchard management – principally differing types of pruning techniques, ranging from formative pruning of young trees, through on-going maintenance pruning during the productive years of an orchard's life, and finally we will cover restorative pruning of neglected older trees.

We are fortunate to have the support of two of Wales' leading orchardists for these workshops: in the north Ian Sturrock will be leading the workshops; while in the south, Paul Davis of Dolau Hirion nurseries will be the workshop leader.

One topic which came to our attention in preparing for the workshops was the mycotoxin patulin.

Patulin is common on apples, particularly on damaged fruits. There are no legal allowable limits for patulin (at present), but there are advisory levels. Due diligence means that any producer commercially selling apple products should take steps to minimise patulin levels. We have produced a briefing note covering this topic – it is available from the CALU website (www.calu.bangor.ac.uk) or by contacting us.



Chris Creed & David Frost demonstrate apple pressing

DID YOU KNOW...

Agriculture and horticulture only use around 1% of all the water abstracted in England and Wales?

Legionnaire's Disease from compost

Legionnaire's Disease is usually associated with air conditioning systems or other water-related sources. However, a recent case of Legionnaire's Disease in Scotland was caused by bacteria in compost. The case was reported in the medical journal, *The Lancet*. This case involved a 67 year old person, described as a keen gardener.

The gardener fell ill after *Legionella longbeachae* bacteria from compost he was using entered a cut on his finger. This is a different and less common

strain of the *Legionella* pathogen. In the UK there have been less than 10 cases of infection from *Legionella longbeachae* recorded over the past 15 years.

Health professionals say that there isn't any particular cause for concern, but that it is something those involved in the horticultural industry should be aware of, as should health practitioners.

Salmonella and duck eggs

Some duck egg producers are calling for routine vaccination against and testing for salmonella in duck eggs to be introduced, along with a quality control mark like the red lion used on chicken eggs.

The call follows an outbreak of salmonella poisoning in September 2010. Duck eggs were implicated in the outbreak.

There is a UK-wide control programme for salmonella in chickens, but no similar scheme for duck egg producers.

DID YOU KNOW...

Michaelmas, blackberries and satan...

folklore has it that you shouldn't eat blackberries after Michaelmas (29th September). This is because Satan is said to spit on the berries at Michaelmas – and you wouldn't want to be eating Satan spit!

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Supporting sustainable land use in Wales



Forthcoming CALU Events

For more information about any of CALU's events, please contact us. More events are on our website—www.calu.bangor.ac.uk. These events are funded through Farming Connect. All events are FREE OF CHARGE. Please book early—our events are becoming increasingly popular and quickly become fully subscribed.

Always double check that the event is going ahead before travelling.

12th October—Orchards, juicing and cider making, Llanrhystud

13th October—Weed management, Glyndwr University

19th October—Horticulture masterclasses, Llanerchaeron

20th October—Orchards, juicing and cider making, Anglesey

21st October—Organic Centre Wales Annual Conference

28th October—Forest Gardening, Felindre, Powys

3rd November—Soil management workshop, National Botanic Garden of Wales

4th November—Seminar—poultry breeds from traditional types to modern hybrids, Llanrwst

8th November—Winter pruning of apple trees with Ian Sturrock, Bangor

10th November—Get together for the growers of Wales, Machynlleth

16th November—Profitable vegetable production, Llanrwst

8th December—Workshop: pig husbandry with specialist pig vet Bob Stevenson, Caernarfon

9th December—Seminar: poultry anatomy, health & welfare, St Clears

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
- Factsheets
- Training days
- Press articles
- Crop information sheets
- Project reports
- Talks
- Producer groups
- Agricultural shows
- Information booklets

CALU PARTNERS:

- Bangor University
- Glyndwr University
- ADAS
- Coed Cymru
- Coleg Llysfasi

