

Energy crops under the spotlight

The popular press has been quick to dismiss energy crops as being unsustainable and an inefficient way of solving the world's energy issues.

They have highlighted concerns about the carbon footprint of producing transport fuels from annual crops like oilseed rape, maize and cereals where there are significant chemical inputs - and a definite uneasiness about utilising prime agricultural land for energy production rather than for food.

But there is far more to energy crops than just biofuels and work at the Institute of Biological, Environmental and Rural Sciences (IBERS) Aberystwyth focuses on crops that offer an energy source with genuine reductions in carbon emissions and can be integrated into Welsh agriculture to boost farming incomes without damaging the environment.

Willow and miscanthus as biomass crops remain a very realistic option for generating both heat and power. The Willow for Wales project has demonstrated that willow is well suited to the Welsh climate and soils and can deliver significant environmental benefits. With crops due to be harvested this autumn and energy producers offering very good prices for woodchip, the economics compete well with many other land-uses. Whilst cereals sound like a more profitable use of good land, the reality is that as fertiliser, fuel and chemical costs increase, cereal margins are likely to fall to well under £20/t.

Key to the economic success of biomass crops in Wales are yield and quality. Breeders and scientists at IBERS are developing new varieties of miscanthus to increase yield potential and combustion quality. These varieties will produce a more competitive crop, improve the gross margin and reduce the time for the grower to recover establishment costs.

Grass on the other hand is something all Welsh farmers are familiar with – and producing energy from grass, in the form of bio-ethanol, is being developed by IBERS scientists to become an exciting new option for Welsh farmers.

Farmers and growers had an opportunity to see the IBERS energy crop work at a Farming Connect Open Day on 7 October run for CALU by Grassland Development Centre at the IBERS Gogerddan site near Aberystwyth. To book a place contact CALU on 01248 680450, calu@bangor.ac.uk or IBERS Grassland Development Centre on 01970 823058.