

Breeding and modelling

Our breeding team in conjunction with Ceres utilises a wide range of techniques and knowledge to make novel hybrids.

Targeted breeding

Through intelligent parent selection we are able to select favourable traits such as drought tolerance and breed *Miscanthus* that is profitable to grow in a wide range of conditions .

Hybrid selection

All our hybrids are rigorously assessed in a wide range of growing conditions, throughout the U.K., Europe and the U.S.A.. Only the best hybrids make it through to large scale trials.



Industrial Partnerships

We work closely with many large industrial and commercial partners. These range from end users such as power stations, current growers and commercial energy crop breeders Ceres.

Ceres “the energy crop company”
Ceres develops & markets low-carbon, non-food grasses for advanced biofuels and biopower.

www.ceres.net

Crop agronomy

With advances in agronomy and by utilising techniques commonly used on other crops we are able to significantly increase biomass production.

Using a combination of agronomic techniques we can decrease establishment time by a year. Thus reducing the time before income is generated and increasing profit margins.



Aberystwyth *Miscanthus*
breeding in partnership with:



General enquires: jus15@aber.ac.uk

[www.aber.ac.uk/en/ibers/research/
research-groups/energy_crop_modelling](http://www.aber.ac.uk/en/ibers/research/research-groups/energy_crop_modelling)

Miscanthus

Let's break down the boundaries

Become part of the future today



IBERS
Sefydliad y Gwyddorau Biolegol, Amgylcheddol a Gwledig
Institute of Biological, Environmental and Rural Sciences

PRIFYSGOL
ABERYSTWYTH
UNIVERSITY

Why *Miscanthus*?

Low input perennial energy crops such as the giant grass *Miscanthus* are a means of producing high quality biomass for combustion on most land types.

- Efficient recycling of nutrients from above ground biomass to below ground rhizome means *Miscanthus* has ultra low fertilizer requirements.
- *Miscanthus* can be harvested annually for up to 20 years.
- Low application of herbicides and currently no known need for insecticides or fungicides
- Variety of uses for energy generation from power stations to domestic heating.

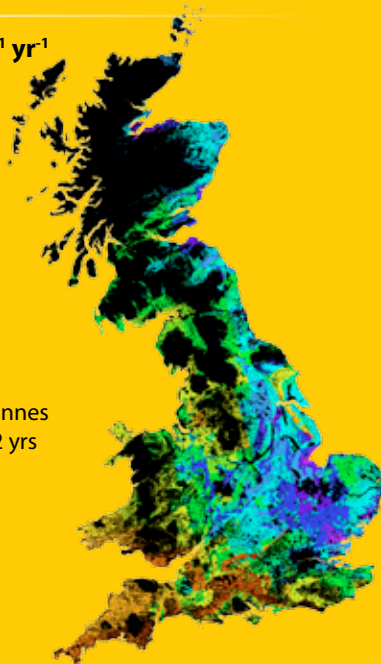
Predictive map of harvestable ODT/ha/yr

Harvestable tonnes ha⁻¹ yr⁻¹



Spring harvestable yield (tonnes dry matter pr ha for crop >2 yrs old for *M. x giganteus**.

Note *M. x gig* is sensitive to water deficits. Our new hybrids are more drought tolerant.



Could your farm become a leader in biomass production from *Miscanthus*?

New seed based F1 varieties bred by the *Miscanthus* Breeding Team at IBERs with Ceres will significantly reduce establishment costs

Newly developed hybrids have lower moisture content at harvest.

Our new F1 *Miscanthus* crosses are now ready for large scale assessment trials. We are currently looking for new growing partners to help develop the agronomy for different climates and soils.



Join the discussion FAQ's on Website...
www.miscanthusbreeding.org/faq/default.html

Miscanthus a versatile crop

From Feedstock for power stations to animal bedding and much much more

Animal bedding

Miscanthus can be used as bedding for a range of live stock from horses to poultry.

Game cover

Miscanthus provides thick cover which will work well as a wind break and stand all season. It can easily be planted with other game crops allowing both warmth and food with easy flushing.

Chip Burners

Biomass Chip burners are a great alternative to the mainstream methods of heating both domestic and commercial buildings. Businesses, the public sector and charities may also receive Renewable Heat Incentive (RHI) payments for up to 20 years for using Biomass boilers.

Pellets

Miscanthus pellets are a particularly convenient form of biomass and can be used in a wide range of boilers.

Biorefining

Advances in biorefinery techniques are allowing more and more products to be created from biomass. These range from transport fuel to plastics.

