

# Could growing your own bedding be a viable option on your farm?

## Miscanthus for livestock bedding – report from 2024

In the spring of 2024 approximately 4 ha of commercially planted Miscanthus at IBERS, Aberystwyth was cut, baled and used for livestock bedding.



- As with many crops, Miscanthus harvesting is very weather dependant. We used a standard grassland mower to cut the crop on March 7th 2024. It lay on the stubble for another 6 weeks waiting for a weather window. During a dry spell on the 21st April it was raked and baled. We used a round baler with chopper knives in place and a Heston baler.



Prior to the study, all the pens were cleaned out so that both materials could be evaluated.

- During the first week, the round bales were put down without using the straw chopper. The material held together and provided a good bed for the cattle. This showed that if miscanthus was chopped at baling, no other machinery would be needed.
- In the next two weeks a conventional straw chopper (Teagle 8100, kindly loaned by



the machinery dealer Gwili Jones of Lampeter) was used to chop and spread the Heston bales of Miscanthus/wheat straw. The farm staff were careful to use similar weights of straw for both miscanthus and wheat.

- Despite its fibrous appearance, farm staff reported that the Miscanthus was handled and chopped well by the Teagle 8100. Cattle appeared to be as comfortable and clean as those on the traditional straw bedding. Local farmer Dorian Jones, who had tried the Miscanthus bedding material on his farm, echoed these findings.

- In storage the round bales weighed an average of 165kg and the Hestons were 315kg.
- The bale temperature remained stable at around 25°C and moisture content ranged from 11-15%.
- The study involved finishing cattle housed at IBERS, Plas Gogerddan. Miscanthus was used in 3 pens, with conventional straw bedding in another 3 pens.



Commenting on the study, Mark Needham of Biomass Connect said

“ although this was a small-scale pilot study, we’ve demonstrated that conventional grassland and bale handling equipment can be used to harvest and process the material, even during the challenging weather conditions we experienced this spring. ”

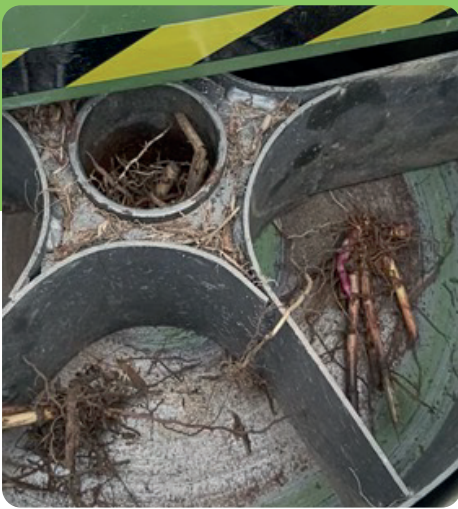
With a recent report by the AHDB suggesting that winter wheat and barley plantings are down by 9 and 12%, respectively, could growing your own bedding could be a viable option on your farm?



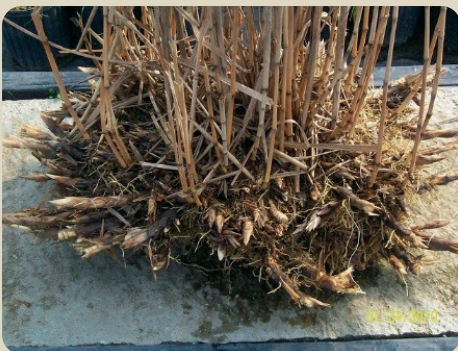
# Miscanthus

## General information

Miscanthus is a fast-growing perennial, planted as rhizomes or plug plants, into land that has been ploughed and cultivated. It's main use in the UK is heat/power and animal bedding, but it has potential for use in diverse applications including packaging, construction, and high value chemicals. It is well suited to lower grade land (e.g. grade 3b/4), and up to around 350m altitude. The key land limitation in practical terms is the need to access the land with harvesting machinery in early spring.



- Initial establishment costs are around £2500/ha (not including cultivation), with some herbicide application required in year 1 to limit weed competition. Fields would typically be replanted after 10-20 years.
- Miscanthus is harvested each spring from the second year after planting. Typical yields from year 3 onwards are 10-t/ha/year. Harvesting is with a conventional forage harvester and maize header, or it can be mown, raked and baled.
- Miscanthus is tolerant of flooding and waterlogging, making it ideal for marginal arable land. It sequesters carbon in the soil and can benefit biodiversity as part of a mixed farming system.



**Gross Margins:** Average: £601/ha (according to FBS England 5-year data).

**Range:** £499 to £732/ha over a 5-year period.

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[Biomassconnect.org](http://Biomassconnect.org)  
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