

DECEMBER 2006



WOODCHIP

for Livestock Bedding Project

Andrew Lewis
Maindiff Farm, Abergavenny

The Woodchip for Livestock Bedding Project was initiated to investigate the potential of using woodchip as an alternative to straw as indoor bedding for sheep and cattle. From January to March 2006 cattle and sheep were housed on woodchip at three development sites, ADAS Pwllpeiran, IGER Aberystwyth and Glynllifon College. During this housing period similar groups were also housed on straw and comparisons were made of their feed intakes, growth rates, cleanliness and health. Assessments were also made of the time and labour requirements for using woodchip in comparison to straw.

An additional part to the project is to determine how best to utilise the woodchip after animals have been bedded on it. Composting studies are being carried out by Bangor University to investigate how the woodchip breaks down and the nutrient value of the end product. The project will also investigate the potential to reuse the woodchip as bedding after it has been composted. Glynllifon College will demonstrate this in February 2007.

Eleven demonstration farms have been set up across Wales to allow farmers to view the project on a local basis. Either cattle or sheep will be housed on these farms for an 8-10 week period on both woodchip and straw. Assessments will be made of the health,



welfare, growth and cleanliness of the animals as well as the labour required for the two systems. Full costings will be given, as the economies of using woodchip will be an important consideration for farmers. Andrew Lewis is part of this demonstration farm network and below is a description of his farm enterprises and how woodchip fits into this.

Cattle

The suckler cattle are of mixed breeds with some of the cows originating from Andrew's brother's dairy herd. At present the herd calves all year round and the calves are sold as stores in the spring depending on availability of feed. Earlier this year a new Limousin bull was purchased from a local farmer and the intention is to continue to improve on the quality of the store cattle produced. The cattle are housed in early November and are either bedded on home produced compost or homegrown straw.

Sheep

There is a large proportion of old ewes at Maindiff Farm that will need to be replaced next year. The North Country mules are favoured here and suit this lowland farm exceptionally well. All the ewes are mated to a Texel ram to lamb at the end of February. The lambs are finished off grass and this year, the last lambs were sold in August.

Composting Enterprise

Green waste is brought in from Blaenau Gwent and Hereford County Councils and composted at Maindiff Farm. A gate fee is charged for each load being delivered and at present 2-3 loads per day arrives. As Andrew does not have a licence to sell the compost it is used on the farm by either spreading it as farmyard manure or using it as bedding. Significant improvements have been seen in the organic matter content of the soils and gradually the soils across the whole farm will be improved.

Woodchip

The woodchip used in this demonstration is produced from wood and shrubs that are screened out of the compost and then shredded. The appearance of this woodchip is quite different to the woodchip used on the other demonstration farms but Andrew is keen to investigate whether this is a viable way of utilising the wood. Wood takes longer to compost than the leafier green material because of its high lignin content. By shredding this wood and using it as bedding extra nitrogen will be added in the form of manure, which will help to speed up the composting process.

Farm Facts

- 230 acres in total, of which 160 acres is grassland and 70 acres is cereals
- 20 Suckler cows - of mixed breed
- 240 sheep - North Country mules and Texel crosses
- Some of the land is managed as part of the Tir Gofal agri-environment scheme
- Composting enterprise

RHAGFYR 2006



Prosiect NADDION PREN

ar gyfer Gwasarn Da Byw

Andrew Lewis Fferm Maindiff, Y Fenni

Cychwynwyd y Prosiect Naddion Pren ar gyfer Gwasarn Da Byw er mwyn ymchwilio i botensial defnyddio naddion pren yn lle gwellt yn wasarn dan do i ddefaid a gwartheg. O fis Ionawr tan fis Mawrth 2006 cadwyd gwartheg a defaid dan do ar naddion pren mewn tri safle datblygu, sef ADAS Pwllpeiran, IGER Aberystwyth a Choleg Glynllifon. Yn ystod y cyfnod hwn cadwyd grwpiau cyffelyb dan do hefyd ar wellt a gwnaed cymariaethau â'u cymeriant bwyd, cyfraddau twf, glendid ac iechyd. Yn ogystal, aseswyd y gofynion amser a llafur wrth ddefnyddio naddion pren mewn cymhariaeth â gwellt.

Rhan arall o'r prosiect yw penderfynu sut orau i ddefnyddio'r naddion pren ar ôl eu defnyddio'n wasarn. Mae astudiaethau gwrteithio'n cael eu cynnal gan Brifysgol Bangor er mwyn darganfod sut mae naddion pren yn dadelfennu a darganfod gwerth maethol y cynnyrch terfynol. Bydd y prosiect hefyd yn ymchwilio i'r potensial o aildefnyddio'r naddion pren yn wasarn ar ôl iddyn nhw gael eu gwrteithio. Bydd Coleg Glynllifon yn arddangos hyn ym mis Chwefror 2007.

Mae un ar ddeg o ffermydd arddangos wedi cael eu sefydlu ledled Cymru fel bod gan ffermydd gyfle i weld y prosiect yn lleol. Bydd naill ai gwartheg neu ddefaid yn cael eu cadw dan do ar y ffermydd hyn am gyfnod o rhwng wyth a deng wythnos ar naddion pren ac ar

FFEITHIAU AM Y FFERM

- 230 erw, gan gynnwys 160 erw o dir glas a 70 erw o rawn
- 20 o fuchod sugno - o fridiau cymysg
- 240 o ddefaid - croesiadau Miwl Gogledd Lloegr a Texel
- Caiff peth o'r tir ei reoli fel rhan o gynllun amaeth-amgylcheddol Tir Gofal.
- Menter gompostio



wellt. Asesir iechyd, lles, twf a glendid yr anifeiliaid yn ogystal â'r gwaith sydd ynghlwm â'r naill system a'r llall. Darperir y costau llawn, oherwydd bydd y gost o ddefnyddio naddion pren yn ystyriaeth bwysig i ffermydd. Mae Andrew Lewis yn rhan o'r rhwydwaith o ffermydd arddangos ac isod gwelir disgrifiad o'r mentrau fferm a sut mae naddion pren yn rhan o hyn.

Gwartheg

Mae'r fuches sugno o fridiau cymysg a daeth rhai o'r gwartheg o fuches odro brawd Andrew. Ar hyn o bryd mae'r fuches yn lloia drwy gydol y flwyddyn a chaiff y lloei eu gwerthu'n stôr yn y gwanwyn, gan ddibynnu ar faint o fwyd sydd ar gael. Yn gynharach eleni prynwyd tarw Limousin oddi wrth ffermwr lleol a'r bwriad yw dal i wella ansawdd y gwartheg stôr sy'n cael eu cynhyrchu. Rhoddir y gwartheg dan do ddechrau mis Tachwedd ar wasarn o naill ai gompost cartref neu wellt cartref.

Defaid

Bydd angen newid cyfran fawr o'r hen famogiaid ar Fferm Maindiff y flwyddyn nesaf. Mae'r defaid Miwl Gogledd Lloegr yn addas iawn ar gyfer y fferm. Bydd yr holl famogiaid yn cael hwrdd Texel fel eu bod yn wyna ddiwedd Chwefror. Mae'r wŷn yn cael eu pesgi ar laswellt, ac eleni cafodd yr wŷn olaf eu gwerthu ym mis Awst.

Y Fenter Gompostio

Bydd Cynghorau Sir Blaenau Gwent a Swydd Henffordd yn dod â gwastraff gwyrdd i Fferm Maindiff i'w wrteithio. Codir tâl wrth y glwyd am bob llwyth sy'n cyrraedd - dau neu dri llwyth ar hyn o bryd. Am nad oes gan Andrew drwydded i werthu'r gwrtaith, caiff ei ddefnyddio ar y fferm, naill ai drwy ei wasgaru yn dail neu ei ddefnyddio'n wasarn. Cafwyd gwelliannau sylweddol yng nghynnwys defnydd organig y priddoedd a chaiff y priddoedd ar draws y fferm eu gwella'n raddol.

Naddion Pren

Mae'r naddion pren a ddefnyddir yn yr arddangosiad hwn yn cael eu cynhyrchu o bren a phrysgwydd sy'n cael eu tynnu allan o'r gwrtaith. Mae'r naddion pren hyn yn edrych yn wahanol iawn i'r naddion pren a ddefnyddir ar y Ffermydd Arddangos eraill, ond mae Andrew yn awyddus i weld a oes ffordd ymarferol o ddefnyddio'r pren. Bydd pren yn cymryd yn hirach i wrteithio na defnydd mwy deiliog oherwydd mae'n cynnwys llawer o lignin. Wrth ddefnyddio'r pren ar gyfer naddion a'i ddefnyddio'n wasarn, bydd mwy o nitrogen yn cael ei ychwanegu ar ffurf achles, a bydd hynny'n help i gyflymu'r broses o wrteithio.