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Towards Zero Waste
One Wales: One Planet

Welsh Government Draft Position Statement on Agricultural Waste

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1 - Agricultural Waste in Wales

This draft position statement has been developed with input from a wide range of interested parties, and a stakeholder event was held to elicit input to the document.

It would be useful to those reading this paper to refer to the Codes of Good Agricultural Practice (CoGAP) (Protection of Water, Soil and Air for Wales). Part 3, Section 7 of the CoGAP contains information on the legal requirements on agricultural waste management, together with useful advice and guidance on best practice. A copy of the CoGAP is available on the Welsh Government website: -

http://wales.gov.uk/topics/environmentcountryside/farmingandcountryside/farming/codesofgoodagripractice/110420cogapintro/?lang=en

The starting point for waste management and resource efficiency in this sector is the revised EU Waste Framework Directive 2008/98/EC. This sets various obligations on member states "to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving efficiency of use" (Article 1). The Directive (Article 28) requires member states to produce waste management plans. The requirement on the Welsh Government to produce a National waste management plan was transposed via regulation 7 of the Waste (England and Wales) Regulations 2011. The content of a waste management plan is prescribed in regulation 8 and Schedule 1 of the Regulations.

The first National Waste Strategy for Wales, *Wise About Waste*, was published in 2002. It included a commitment to a review of the strategy after 5 years. Following the review, Towards Zero Waste, the overarching waste strategy document for Wales, was published on 21 June 2010.

The outcomes, policies and targets set in Towards Zero Waste help deliver One Wales: One Planet and progress further those developed in Wise About Waste. They take full account of the principles and objectives enshrined in the revised EU Waste Framework Directive with its drive for waste prevention and to make the EU a high recycling society. There has been no change in direction; but ambitions have been stretched further in order to deliver sustainable development outcomes.

Towards Zero Waste is being delivered through a series of Sector Plans that will form the action plan for each key sector, where new actions are considered to be necessary. These form part of the waste management plan for Wales that meets the requirements laid down in Article 28 of the revised Waste Framework Directive.

Towards Zero Waste made a commitment by Welsh Government to publish the following Sector Plans:

- Municipal.
- Collections Infrastructure and Markets.
- Industrial and Commercial.
- Food Manufacture, Service and Retail.
- Construction and Demolition.
- Public Sector.
- Agriculture.

In addition to the sector plans the Welsh Government has published a waste prevention programme (as required under Article 29 of the Waste Framework Directive).

2 - Sector plans

Sector plans are the implementation plans for Towards Zero Waste. They describe the role of the sector, the Welsh Government and others in delivering the outcomes, targets and policies in the Waste Framework Directive and Towards Zero Waste. The plans have been developed with sector representatives to make sure they can be achieved and will be living, flexible documents that are published on the Welsh Government website.

The plans:

- Define what and who is included in that sector.
- Outline the current performance of the sector, including providing details of the types, quantities, source and management of waste.
- Describe how the principles, outcomes, policies and targets laid out in the Waste Framework Directive and Towards Zero waste apply to the sector.
- Identify the gap between current performance and that required by the sector to meet the policies and targets laid down in Towards Zero Waste.
- Identify the current actions in place and new actions necessary to address the gap in performance.

3 - Current Situation

The agricultural sector in Wales represents some 41,000 holdings on approximately 1.7m ha of land (80% of Wales).

3.1 - Waste produced on farms

The types of agricultural waste produced on farms can be wide ranging. Definitions of agricultural waste can be found in **Annex A**.

It is important to note that manure, slurry and silage effluent are not waste when used directly as a fertiliser. This includes when they are used on a different farm to where they came from. However, manures or slurries that are fed into an anaerobic digestion plant on a farm are classified as controlled wastes, and an exemption or permit is required.

There is limited accurate Wales data for ‘on the ground’ quantities and types of agricultural waste produced, their disposal, re-use or recycling.

The most relevant recent data was produced by the Environment Agency for the Eurostat 2010 return using the Agricultural Wastes Estimates Model (Marcus Hodges Environment and BDB Associates) and is presented in Table 1. The Model has been developed over a number of years to provide estimates of waste quantities arising in the agricultural sector. Initially created on behalf of the Environment Agency in 1998, the Model was subsequently developed, modified and extended as part of a research project funded by Biffaward under the Landfill Tax Credit Scheme.

Although the Model has been valuable over recent years (since previously there were no estimates available), it is important to note that it does have limitations. The Model was developed to provide estimates of waste quantities at the country and regional level in order to assist waste policy development. As a result, the methodology employed reflects this. For instance, more than half of the estimates are based on a ‘top down’ approach (using national supply data) and there has been limited on-farm validation. The application of unit waste estimates for smaller geographical areas and numbers of farms (e.g. for calculation of estimates at the parish level) would be likely to give rise to high levels of inaccuracy.

The Model does not provide estimates for several known waste arisings (at present) due to a lack of data (e.g. on unused pesticide concentrates). The Model does not provide estimates of quantities of waste derived from the control of invasive weeds on agricultural land. The Model does not provide figures for fallen stock. Animal carcasses disposed of in accordance with the Animal By-products Regulation are not a controlled waste under the Waste Framework Directive so would not be included in the Model or any updates.

The accuracy of some of the estimates in Table 1 is low due to limited reliable data and variations in farming practice; for example the model includes data for Cypermethrin sheep dips. These types of products were suspended in 2006, due to pollution potential, and permanently withdrawn from the market in 2012. Therefore the model could be distorting the true picture.

Another example is tyres. The model only takes account of tyres from old machinery that is replaced or scrapped. No estimations are available for the amount of tyres stored on farms for weighing down silage sheeting.

The estimates generated are of ‘annual waste arisings’ by geographical area. No information is provided on, for example, the quantities of stockpiled waste and the seasonality of waste arisings.

Table 1 - Non-natural Agricultural Waste Arisings - 2010 Estimates

Eurostat Cat	Main Waste Type	Sub Waste	Units	Wales
7.4	Agricultural Plastic	Polypropylene (PP)	Tonnes	1,107
7.4	Agricultural Plastic	LDPE	Tonnes	14,342[1]
7.4	Agricultural Plastic	HDPE (net wrap)	Tonnes	785
7.4	Agricultural Plastic	Silage Cores (mixed)	Tonnes	104
7.4	Agricultural Plastic	HDPE (Agrochemicals)	Tonnes	131
7.4	Plastic oil drums		Tonnes	67
7.4	**Total Agricultural Plastic**	**All**		**16,536**
7.2	Agrochemical Packaging	Paper	Tonnes	45
7.2	Animal Feed Bags	Paper	Tonnes	669
7.2	Seed Bags	Paper	Tonnes	56
7.2	**Total Agricultural Paper**	**Paper**		**770**
5	Syringes		Tonnes	5
5	Animal Health	Plastic	Tonnes	108
5	Animal Health	Paper	Tonnes	36
5	Animal Health	Glass	Tonnes	108
5	Animal Health	Rubber	Tonnes	1
5	**Total Animal Health**	**All**	**Tonnes**	**258**
6	Machinery Waste	Metals	Tonnes	2,642
6	Oil	Metal drums	Tonnes	116
6	**Total Metal Wastes**		**Tonnes**	**2,758**
9.11	**Total Milk Waste**		**Tonnes**	**3,005**
8	**CFCs**	**Containers**	**Tonnes**	**2.06**
3.1	Pesticide Washings (cubic metres)		Tonnes	4,064
3.1	Sheep Dip	Organic phosphates	Tonnes	11,742
3.1	Sheep Dip	Synthetic phosphates	Tonnes	5,392
3.1	Sheep Dip	Insecticides	Tonnes	1
3.1	**Total Chemical deposits and residues**		Tonnes	21,199
1.3	**Oil**		Tonnes	2,862
13	Asbestos Roof Sheeting		Tonnes	4,025
8.41	Batteries		Tonnes	357
8	CFCs	Gas	Tonnes	0.16
7.3	Tyres		Tonnes	2,931
	Total			**54,705**

Source: Environment Agency

1. This includes contamination, for example soil, grit etc.

The Model identifies that the largest quantity of agricultural waste produced in Wales (around 39%) is chemical deposits and residues consisting mainly of spent sheep dip (the bulk of which will be composed of water). The majority of these can be disposed of on agricultural land through an Environmental Permit or Exemption.

Agricultural plastic represents a large proportion of the waste produced on farms (around 30%). This is mainly silage wrap and sheeting. There is limited data available on how accurate this figure is and on the methods of disposal of agricultural plastics. The Model figures include contamination (soil, water, manure, etc) which can account for around 60% of the tonnage of LDPE collected. If we take out the contamination levels from the waste model data (60% contamination from 14,342 tonnes) then the gross quantity produced in Wales would be 5,736 tonnes.

The most recent figures for farm plastics provided by the British Polythene Industries (BPI) suggest different quantities from the model data. According to their figures there is an estimated gross annual average of 8,500 tonnes (average of last 5 years figures to account for seasonality difference) of waste farm plastic produced in Wales (mainly silage wrap and sheeting). This is a difference of an additional 2,746 tonnes from the model.

The 2010 Wales agricultural waste figures in Table 1 do not include figures for manures and slurries as this is not classified as 'waste' where they are applied to land as a fertilizer for the benefit of agriculture. Wise About Waste identified that 5.9 million tonnes of manure and slurries were produced in Wales in 1998. If such wastes are used as a feedstock in an anaerobic digestion plant they do then become classified as controlled waste under the Waste Framework Directive.

3.2 - The Management of Wastes from Agriculture

Currently, farmers have at least four options available when managing agricultural waste produced on farm (not all are applicable to every waste stream):

- Store the waste, pending collection, on the site it was produced for up to 12 months (subject to registering appropriate exemption and conditions). After this period the waste has to be recovered or disposed of through one of the options below;
- Transfer the waste to a waste management company or other licensed third party for recovery or disposal off-farm at a licensed or exempt site;
- Register an exemption to recover the waste on farm; or
- Apply for a waste management licence or permit to recover or dispose of the waste.

Recent research by WRAP Cymru (Separately Collected Commercial, Industrial and Agricultural Wastes in Wales 2007/08 – published 2011) showed that the majority of wastes collected and managed off-farm was

through private sector companies (over ten times more than through Local Authority collection/disposal routes). This data is provided in **Table 2**.

The research also highlighted that, of the twenty two Local Authorities in Wales, only one local authority provided a collection service for segregated agricultural waste. Some local authorities also allow farm waste to be taken to civic amenity sites / household waste recycling centres, although the exact number allowing this is unknown. The quantities and types of agricultural waste that is disposed through local authority sites are also unknown.

Table 2 - Total Tonnage of Commercial, Industrial and Agricultural Waste Collected 2007/08

	Commercial (t)	Industrial (t)	Agricultural (t)
Local authority totals	18,580	0*	520
Private sector totals (based on 28 companies)	190,148	46,708	16,020
TOTAL[1]	**208,728**	**46,708**	**16,540**

Source: WRAP

1 These totals represent the actuals provided by respondents. Due to the low response rate, particularly from private sector companies, no attempt has been made to scale up the data for the whole of Wales.

* Local authorities are not obliged to collect industrial waste.

Data from the WRAP Cymru report also suggested that there is under capacity for agricultural waste collection and management, but recommended further research to verify this indication.

From the figures in the agricultural waste model it is clear that there is a huge difference between the estimates of agricultural waste produced in Wales which are likely to be managed off farm (around 30,500 tonnes) and the volume of waste identified in the WRAP Cymru report as being collected (16,540 tonnes, although this is not the total volume collected throughout Wales).

There are a number of private companies collecting farm plastics throughout Wales. Birch Farm Plastic has provided data for farm plastic collection in Carmarthenshire in 2013. The total collected is 725 tonnes from 437 farms – an average of 1.6 tonnes per farm.

The BPI estimated a gross annual total of 4,400 tonnes of waste farm plastic is collected in Wales for recycling. This leaves a balance of 4,100 tonnes unaccounted for annually. This could be going to landfill, burned or illegally exported.

Due to the high levels of contamination in farm plastics it is not suitable for export to overseas recyclers. However due to price increases over recent years there are reports of a rapidly developing illegal export market for farm

plastics. This could lead to undermining the UK farm plastic market in the future if it continues to grow.

In terms of the waste production figures provided in **Table 1**, it is likely that the majority of the milk wastes and chemical deposits and residue wastes (a total of around 24,000 tonnes) are managed on farm through exemptions. This leaves around 30,500 tonnes which are most likely managed off farm.

Due to the lack of firm information on the management of all of the wastes produced in the agricultural sector it is not possible to give an estimate of the overall reuse, recycling, energy recovery or landfill rates.

3.3 - Other sectors' wastes recovered on farms

It is common practice for numerous farms in Wales to recover other sectors' wastes brought onto their land.

The types, volumes and purpose of wastes recovered on farms can be wide ranging. Examples could be from using road planings and inert construction waste for farm tracks, tyres for silage clamps, and (untreated) woodchip for animal bedding to wastes that can be used as 'fertilizers' to benefit plants and soil (e.g. sewage sludge, food production residues, compost, AD Digestate, brewery waste, etc). Compost and anaerobic digestion digestate meeting the relevant Quality Protocols (and certificated to PAS 100 and PAS 110 respectively) can be spread on the specified land as a product, and is not subject to waste controls. Treated wood that has been chipped must not be spread on land or used as animal bedding.

Done correctly the beneficial recovery of wastes on farm land can provide a cost benefit to the agricultural industry, whilst also providing a sustainable way to recover waste from other industries and sectors. But, there could be severe consequences for the food chain, soil health, watercourses, groundwater, sensitive habitats and species if it is done incorrectly.

Currently, farmers intending to recover waste on their land need to have either an Environmental Permit or a waste exemption, registered with Natural Resources Wales, before the material can be used. The Permit or exemption will have conditions attached specifying the types and quantities of waste that can be used for specified purpose.

Natural Resources Wales holds data on the types and volumes of wastes recovered on agricultural land. The landspreading data in **Tables 3** and **4** is supplied by the operators at the time and the tonnages should be considered as maxima. Changes in circumstances could result in lower tonnages being utilised, for instance due to adverse weather conditions or allowing for the use of non waste fertilisers on the same land. While use of additional waste would need a re-notification application of lower tonnages would not.

The figures show that up to around 672,000 tonnes of waste was recovered on agricultural land in 2012 and up to around 515,000 tonnes in 2013.

“Sludges from water clarification” was the largest waste stream notified in both years, making up 54% and 64% respectively.

Table 3 - Land spreading of Wastes on Agricultural Land 2012

List of Waste code	Quantity (tonnes)	Waste code description
02 02 01	26,960	sludges from washing and cleaning
02 02 02	8,300	animal tissue waste
02 02 04	29,579	sludges from on-site effluent treatment
02 03 01	2,019	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	4,112	materials unsuitable for consumption or processing
02 03 05	10,310	sludges from on-site effluent treatment
02 05 01	6,909	materials unsuitable for consumption or processing
02 05 02	65,492	sludges from on-site effluent treatment
02 05 99	10,475	wastes not otherwise specified
02 06 01	497	materials unsuitable for consumption or processing
02 06 03	2,500	sludges from on-site effluent treatment
02 07 02	1,212	wastes from spirits distillation
02 07 04	8,248	materials unsuitable for consumption or processing
02 07 05	2,498	sludges from on-site effluent treatment
03 03 05	14,435	de-inking sludges from paper recycling
03 03 11	12,982	sludges from on-site effluent treatment other than those mentioned in 03 03 10
07 07 12	4,210	sludges from on-site effluent treatment other than those mentioned in 07 07 11
17 05 06	6,386	dredging spoil other than those mentioned in 17 05 05
19 02 04*	3,506	premixed wastes composed of at least one hazardous waste

19 05 03	19,611	off-specification compost
19 05 99	46,545.	wastes not otherwise specified
19 06 05	596	liquor from anaerobic treatment of animal and vegetable waste
19 06 06	1,223	digestate from anaerobic treatment of animal and vegetable waste
19 08 02	10094	Waste from desanding
19 09 02	364,968	sludges from water clarification
20 02 01	3,300	biodegradable waste
20 02 02	4,637	soil and stones
TOTAL	**671,604**	

Source: Natural Resources Wales

Note 1. Tonnage data are maximum amounts as given on permit application by operators.
Tonnages actually spread may be lower.
2. There were 292 deployment applications in 2012.

Table 4 - Land spreading of Wastes on Agricultural Land 2013

List of Wastes code	Quantity (tonnes)	Waste code description
02 01 06	6,600	animal faeces, urine and manure (including spoiled straw), effluent, treated off-site
02 02 02	15,320	animal tissue waste
02 02 04	4,338	sludges from on-site effluent treatment
02 03 05	650	sludges from on-site effluent treatment
02 05 02	67,959	sludges from on-site effluent treatment
02 05 99	10,475	wastes not otherwise specified
02 06 03	2,500	sludges from on-site effluent treatment
02 07 02	433	wastes from spirits distillation
02 07 05	313	sludges from on-site effluent treatment
03 03 01	5,000	waste bark and wood
03 03 05	2,571	de-inking sludges from paper recycling
03 03 11	3,749	sludges from on-site effluent treatment other than those mentioned in 03 03 10
19 05 03	10,885	off-specification compost
19 05 99	52,138	wastes not otherwise specified
19 09 02	328,705	sludges from water clarification
20 02 02	3,388	soil and stones
TOTAL	515,024	

Source: Natural Resources Wales
Note: 1 Tonnage data are maximum amounts as given on permit application by operators.
Tonnages actually spread may be lower.
2. 101 deployment applications were received in 2013.

We do not have figures on the capacity of agricultural land in Wales to recover specific types and volume of waste for agricultural benefit, and which could contribute towards reuse and recycling targets for other sectors.

4 - Regulation

Introduction

Agricultural waste was excluded from waste management controls for many years. Since 2006, agricultural waste controls have been brought into line with waste from all other sectors of industry through the Waste Management (England & Wales) Regulations 2006 and classified as industrial waste.

Since the introduction of the Regulations any substance or object from premises used for agriculture or horticulture, which the holder discards, intends to discard or is required to discard, have become subject to control as waste. Uncontrolled burning or tipping of waste on farms became illegal.

As noted previously, it is important to note that manure and slurry are **not** classified as waste when used directly as a fertiliser. However, manures or slurries that are fed into an anaerobic digestion plant on a farm are classified as controlled wastes, and an exemption or permit is required.

Under the Regulations, Agricultural waste is defined as waste produced from premises used for agriculture within the meaning of the Agriculture Act 1947.

4.1 - Hazardous waste

As of 2007, the Hazardous Waste Regulations 2005 applied to all agricultural waste. Hazardous waste poses more of a risk to human health and the environment and there are special controls on their handling, transport and disposal.

The majority of farms certainly produce hazardous wastes at some point. Hazardous wastes include:

- Waste fuel and lubricating oils.
- Oil containers.
- Brake fluid.
- Animal health waste (e.g. sheep dip, syringes, needles, etc).
- Pesticide containers that have not been fully emptied and triple rinsed.
- Batteries.
- Asbestos sheeting and roofing.

Under the Hazardous Waste Regulations, farmers must be registered if they produce more than 500kg of hazardous waste in a 12 month period. All farmers must complete a **consignment note** whenever they move hazardous waste off farm, whether they move the waste themselves or have it picked up by a registered waste carrier.

4.2 - Invasive weeds

Invasive weeds can be very problematic on some agricultural premises and often require control. When tackling the invasive weeds it is important to minimise the amount of waste generated that contains invasive plants or their seeds, roots and rhizomes (underground root-like stems). Any waste that is produced should be treated on site where possible. Any waste taken off site must be taken by a licensed waste carrier and go to a suitably authorised landfill site. When invasive plants and soil contaminated with invasive plants are transported, the vehicle must be covered or sheeted so that seeds and plant material cannot blow away. Allowing contaminated soil or plant material to escape could lead to prosecution. A waste carrier can only take the waste containing invasive weeds to sites authorised to accept it. The waste site may need notice so that an area can be prepared. For example, a landfill site will need an area away from the landfill liner for material containing invasive plants.

4.3 - Plastic farm film

Concerns have been expressed about the potential illegal export of contaminated plastic film derived from the agriculture sector. Single stream clean waste plastic can be legally exported as “green waste” under the Transfrontier Shipment Regulations as long as it does not require a further clean-up treatment process prior to the material recovery process. Plastic film waste that requires further clean up has to be notified under the regulations as “Unlisted waste” (requiring prior written approval). It is understood that there have been no applications over the last ten years for the export of unlisted waste agricultural plastic film. Therefore any exports of contaminated material will have been illegal. Some receiving countries put contamination levels in their controls. China for instance (which does not allow any uncleaned farm plastic) has a limit of no more than 0.5% of contaminants for a range of wastes (including plastics).

4.4 - Separate collection of recyclates

The revised Waste Framework Directive (2008/98/EC) requires member states to set up by 1 January 2015 separate collection of paper, metal, plastic and glass where necessary and practicable. Supporting European Commission guidance was published in June 2012. Defra and the Welsh Government transposed these requirements through the Waste (England and Wales) Regulations 2011, as amended by the Waste (England and Wales) (Amendment) Regulations 2012.

Regulation 13 requires that from 1st January 2015 an establishment or undertaking which collects waste paper, metal, plastic or glass (including from the agricultural sector) must do so by way of separate collection. These requirements apply where separate collection:
(a) is necessary, in effect, to provide high quality recyclates, and
(b) is technically, environmentally and economically practicable.

4.5 - Environment Bill waste proposals

The Welsh Government has published proposals for new waste legislation in the Environment Bill White Paper. These are:

- Introduction of a requirement for Welsh businesses to keep separate at source seven recyclable wastes: paper, card, metals, plastic, glass, food and wood.
- Extending the Waste Framework Directive separate collection requirements to include food, card and wood.
- A ban on the incineration of specified recyclable wastes.
- A ban on the landfilling of specified recyclable wastes.
- A ban on the disposal of food waste to sewer.

These proposals will impact on all businesses, including the agricultural sector.

4.6 - Duty of Care

All agricultural businesses now have to legal duty to comply with 'Duty of Care'. This is a responsibility to ensure that waste produced, stored, transported and disposed of will not harm the environment. The duty of care applies to **controlled waste** (includes commercial, industrial and household waste, as well as hazardous/special waste, agricultural, construction and demolition waste).

Through the Duty of Care, agricultural businesses are specifically responsible for the waste from when they produce it until they have transferred it to an authorised person. Also farmers must make sure that they only pass waste to someone who is authorised to take it – a registered carrier of controlled waste or be exempt from registration. If the person they have passed the waste to disposes of it illegally, the producer could be held responsible, prosecuted and fined. Records must be kept of all transfers of waste - Waste Transfer Notice (WTN).

4.7 - Exemptions

In order to keep, treat or dispose of waste, farmers must have an Environmental Permit or exemption.

Most activities involving the storage, recycling and disposal of farm wastes can be registered as exempt from the need to have an environmental permit. When the Regulations were introduced in 2006, farmers had 12 months to register an exemption from waste management licensing with the Environment Agency.

The Environmental Permitting Regulations (England and Wales) 2010 were introduced on 6 April 2010. These changed the system of waste exemptions. Agricultural exemptions registered before 6th April 2010 expired on 30th September 2013. By the 1st October 2013, farmers in Wales needed to register for new exemptions with Natural Resources Wales (NRW).

The new waste exemptions are grouped into 5 categories:

- Use of waste – U
- Treatment of waste – T
- Disposal of waste – D
- Storage of waste – S
- Non-registerable exemptions – exemptions not covered by the Waste Framework Directive.

4.8 - Fly-tipping

The Welsh Government published a '*Fly-tipping Free Wales*' in November 2012. This document sets out the current Welsh Government position in relation to fly-tipping and the proposed future approach.

Fly Capture is the national database of fly-tipping incidents and enforcement action; it was set up in 2004 by the Department for the Environment, Food and Rural Affairs (DEFRA), Welsh Government, Environment Agency and the Local Government Association. *Fly Capture* records the incidents and costs of illegally dumped waste on public land dealt with by both local authorities and Natural Resources Wales.

Although the *Fly Capture* statistics look positive and much has already been achieved in Wales to tackle fly-tipping, *Fly Capture* does not reveal the true extent of fly-tipping in Wales as it excludes fly-tipping on private land. Local authorities may investigate incidents on private land, but have no obligation to clear this fly-tipped waste. When fly-tipping occurs on private land, it is up to the landowner to pay the clean up costs and these can be significant. Fly-tipping on private land is considered a major issue for landowners and farmers.

The Report of the Farming Regulation Task Force for DEFRA, published in May 2011, expressed concern about the extent of fly-tipping on agricultural land and the associated clearance costs. It also recommended that fly-tipped material on farms should be reclassified as household waste and should be eligible for disposal at no cost at civic amenity sites. The Welsh Government is currently working with landowner organisations, such as the NFU Cymru, FUW, CLA and the National Trust, to increase the reporting of fly-tipping incidents and the sharing of best practice on how to reduce the risk of fly-tipping.

4.9 - Anaerobic Digestion (AD)

The agriculture sector has an important role in the recovery and treatment of biodegradable waste in Wales. The targets set through 'Towards Zero Waste,' in reducing the amount of biodegradable waste going to landfill, has been an incentive for more use of anaerobic digestion (AD) in Wales recently and over the coming years.

The role the agricultural sector can play here is mainly in two areas: -

- **Use of AD Digestate -** a primary role which agriculture can play within the Anaerobic Digestion system is utilising the product of anaerobic digestion,

digestate as a replacement for manufactured fertilisers. This replacement could contribute to the agricultural sector achieving climate change mitigation targets through displacement of carbon dioxide associated with fertiliser manufacture and use. It could also provide a potential cost benefit to the agricultural industry in reducing fertilizer costs.

- **On-farm AD** – the introduction of incentives through the Feed in Tariff (FITS) and the renewable Heat Incentive (RHI) has made AD a more attractive option for some farms. On farm AD is primarily the use of manure, slurry and/or crops grown specifically for AD. Such plants can be operated under a T24 exemption (subject to conditions) from NRW. The use of other types of feedstock for on farm AD would be subject to Environmental Permitting requirements.

There is potential that interest in AD could be expanded further following proposals under the new RDP (2014 – 2020) that could support on farm and community based AD.

The RDP is proposing to support community based and on-farm activities which could include the development of local supply chains and small-scale investment in renewable energy infrastructure and energy saving actions. All forms of alternative energy will be considered including biomass, solar and hydro and (subject to State Aid restrictions) support for opportunities for on-farm anaerobic digestion as a means of dealing with animal and green waste, including the scope to develop supply chains for green waste.

4.10 - Regulation of AD

As noted previously, manure, slurry and silage effluent are not considered waste when it is used directly as a fertilizer on land. When manure, slurry or silage effluent is used for AD, it is a waste and will be subject to regulatory control.

AD digestate output is not considered waste if:

- Only waste feedstock is manure and slurry and it is spread as fertilizer on agricultural land.
- Feedstock of manure and slurry are mixed with crops grown specifically for AD and it is spread as a fertilizer on agricultural land.

If manure and slurry feedstock is mixed with other waste feedstock, then the digestate will be waste and subject to Environmental Permitting controls.

A Quality Protocol for AD Digestate (ADQP) has been developed (including certification to PAS110). If this quality standard is met, then the resultant digestate would not be considered a waste and can be spread on land as a fertilizer without the need for an Environmental Permit or exemption. It also ensures that farmers using digestate have a consistent quality product and is fit for purpose.

4.11 - Current Position - AD in Wales

Up to September 2013 there are 8 AD plants operating in Wales. A number of additional sites are in construction and will become operational within the next 12 - 18 months.

The types of plant operational are split as follows:

- 3 – Agricultural (using manure, slurry and/or crops for AD on farms).
- 4 – Community (using food waste).
- 1 – Industrial (used to treat on site waste).

Please note these figures exclude AD plants operated by the Water Industry, of which there are an additional 13 operating in Wales.

5 - Actions in place to secure the more sustainable management of agricultural waste

5.1 - Agricultural Waste – Links with Land Management and Support Schemes.

Below is a summary of waste management requirements linked to current land management and support schemes.

5.2 - Cross Compliance

The two main areas under cross compliance relating to waste management are: -

- SMR 2 – Protection of groundwater against pollution.

This requirement relates to the Environmental Permitting Regulations 2010 and covers disposal of hazardous and polluting substances to land (e.g. sheep dips, pesticides) and the requirement for appropriate permit from NRW.

- SMR 3 – Protection of the Environment, and in particular Soils, when Sewage sludge is used in Agriculture.

The aim of this requirement is to ensure that when sewage sludge is used in agriculture there is no risk to human, animal or plant health, and no harmful effects on soils. The requirements are to follow the ‘Sewage Sludge Matrix’ and legal requirements.

5.3 - Tir Gofal

Under the Whole Farm Code requirements in Tir Gofal, all agreement holders were required to keep their farms clear of waste but complying with legal requirements for the disposal of farm waste. Areas of concern on the farm were noted on agreement maps and farmers were required to dispose of identified waste within the first 6 months of entering the agreement (and/or agree suitable areas for storage of waste).

Non compliance with this requirement was one of the main reasons for Tir Gofal payments being withheld or penalties applied.

There are currently 3,000 farms in Tir Gofal covering 300,000 ha of land. The majority of Tir Gofal agreements will come to an end on 31st December 2013.

5.4 - Tir Cynnal

As with Tir Gofal, all agreement holders under Tir Cynnal are required to keep the farm clear of waste and no dumping of waste on land. Again the majority of Tir Cynnal agreements (approximately 4,500).

5.5 – Glastir

Under Glastir Entry Whole Farm Code requirements, the land under contract must be kept free of rubbish such as derelict vehicles, discarded fencing, plastic wrap and disused domestic appliances. Any existing rubbish should be cleared from the premises before the outset of the Contract.

5.6 - Organic Certification and Farm Assurance

Through the majority of Organic Certification requirements, farmers are encouraged to minimise pollution and waste on their farms. Also farmers are encouraged to maximise recycling where possible or to dispose of waste appropriately in line with legal requirements. Organic certification standards do have strict restrictions on bought in waste disposed of on farms as fertilizer (e.g. no abattoir waste).

Farm Assurance schemes also require members to follow legal requirements when storing and disposing of agricultural waste. Compliance can be checked during inspections (e.g. copies of Waste Transfer Notices, etc). Waste management is also covered in ‘Farm Waste Management Plans’ (identifies types of waste produced, method of disposal and any exemptions or permits registered) for numerous Farm Assurance Schemes.

5.7 - Farming Connect

Through Farming Connect, farmers can receive 80% funding towards on farm advice and mentoring through either the Whole Farm Plan or Farm Advisory Service elements.

Advice on waste management is a topic that could be delivered if requested. In the current Farming Connect programme (2008 -2013) over 6,000 applications have been received for on farm advice and mentoring, however there have been **zero** requests for advice on agricultural waste management. There is strong demand for advice on manure / slurry management and nutrient management planning (manure / slurry are not considered ‘agricultural waste’).

6 - Sources of Information, Advice and Guidance on Agricultural Waste

Below are the main sources of information available to farmers on agricultural waste. These cover legal requirements and advice and guidance on managing farm wastes. These are all web pages.

- **Welsh Government (WG)**

  Codes of Good Agricultural Practice (CoGAP) (Protection of Water, Soil and Air for Wales). Information and advice on legal requirements and good practice to minimise risks of causing pollution. See Part 3 (Resource Management) Section 7 (Waste Management) for information. It is understood that the CoGAP will be updated during 2014.

  http://wales.gov.uk/topics/environmentcountryside/farmingandcountryside/farming/codesofgoodagripractice/110420cogapintro/?lang=en

  General advice and guidance on waste management, minimisation and legislation. information on Towards Zero Waste and sector plans.

  http://wales.gov.uk/topics/environmentcountryside/epq/waste_recycling/?lang=en

  Farmregs Wales – information on Regulations that apply to farmers and landowners in Wales

  http://wales.gov.uk/topics/environmentcountryside/farmingandcountryside/farming/farm-regulations-wales/?lang=en

  Farming and Scheme Information. Information and guidance on farm schemes (e.g. cross compliance, Glastir, etc).

  http://wales.gov.uk/topics/environmentcountryside/farmingandcountryside/farming/?lang=en

- **Natural Resources Wales (NRW)**

  Advice on farm exemptions and ability to register exemptions on-line. General advice and guidance on waste management, environmental permits and waste transfer notices.

  http://naturalresourceswales.gov.uk/apply-buy-report/apply-buy-grid/waste/waste-permtting/farm-exemption/?lang=en

- **Environment Agency (EA)**

  Agricultural Waste pages covering Regulation, exemptions, moving waste, hazardous waste, agricultural waste guidance and spreading waste on land.

  http://www.environment-agency.gov.uk/business/sectors/32777.aspx

- **Department for Environment, Food and Rural Affairs (DEFRA)**

  Advice and guidance on minimising farm waste.

  https://www.gov.uk/minimising-farm-waste-composting-and-recycling

- **WRAP Cymru**

  Advice and guidance on the use of compost and digestate in agriculture.
  http://www.wrapcymru.org.uk/category/sector/agriculture

Annex A – Definitions

Waste

Waste is defined in the EU Waste Framework Directive (Article 3 (1)) as meaning "any substance or object which the holder discards or intends or is required to discard". Excluded from control under the Directive includes "faecal matter, straw and other natural non-hazardous agricultural or forestry material used in farming, forestry or for the production of energy such as biomass through processes or methods which do not harm the environment or endanger human health", "animal by-products including processed products covered by Regulation (EC) No 1774/2002, except those which are destined for incineration, landfilling or use in a biogas or composting plant", "carcasses of animals that have died other than by being slaughtered, including animals killed to eradicate epizootic diseases, and that are disposed of in accordance with Regulation (EC) No 1774/2002.

Agricultural Waste

Agricultural waste is any substance or object from premises used for agriculture or horticulture, which the holder discards, intends to discard or is required to discard. It is waste specifically generated by agricultural activities.

The legal definition of industrial waste includes "waste from premises used for agriculture within the meaning of the Agriculture Act 1947"[1].

Agriculture Act

The Agriculture Act 1947 defines "agriculture" as including:-"horticulture, fruit growing, seed growing, dairy farming and livestock breeding and keeping, the use of land as grazing land, meadow land, osier land, market gardens and nursery grounds, and the use of land for woodlands where that use is ancillary to the farming of the land for other agricultural purposes, and 'agriculture' shall be constructed accordingly."

For the purpose of waste exemptions, *"agricultural land"* has the meaning given by section 109 (1) of the Agriculture Act 1947 and includes land for the production of timber and non-food agricultural crops.

Since 2006, agricultural waste has been subject to the same controls that have applied to other sectors for many years. On 15 May 2006, uncontrolled burning or tipping of waste on farms became illegal.

Manure and Slurry

Manure and slurry are not waste when used directly as a fertilizer on the farm where it is produced. This excludes when they are used on a different farm to where they came from. However, manures or slurries that are fed into an anaerobic digestion

[1] Section 75 (6)(e) of the Environmental Protection Act 1990.

plant on a farm are classified as controlled wastes, and an exemption or permit is required.

Controlled Waste

Controlled waste is defined in the Environment Protection Act 1990 and the Controlled Waste Regulations 2012 as household, industrial and commercial.