Agricultural Waste Plastics Collection and Recovery Programme

Good Practice Information

The Agricultural Waste Plastics Collection and Recovery Programme provides the following general guidance to farmers for the handling, segregation and storage of agricultural waste plastics (AWP).

- ☑ **Firstly, endeavour to minimise the amount of AWP arising**
- ☑ **Consider reuse options**
- ☐ **Store silage bales on concrete areas where possible; remove wrap prior to transporting the bales to the feeding area. Handle all silage film from bags and clamp to avoid dragging on soiled areas**
- ☐ **Where possible, remove crop covers from the field in optimum dry conditions to avoid excessive contamination**
- ☐ **Empty, triple rinse and drain all agro-chemical containers; dispose of contaminated water safely**
- ☐ **Fully empty out packaging e.g. fertiliser and seed bags – shake or brush if appropriate**
- ☐ **Segregate and bag or store the plastic waste as it arises (not after it has blown around the farm)**
- ☐ **Store AWP together at one site to ease collection/loading**
- ☐ **Segregate the waste according to type, i.e. wrap and sheeting, polytunnel and crop film, feed bags, fertilizer bags, string and netting**
- ☐ **Store AWP in appropriate areas to protect the material from wind and rain, e.g. use a fertiliser bag liner or a dedicated bin or a pen of pallets/hurdles so that it does not blow away**
- ☐ **Squash and flat pack packaging, e.g. fertilizer and feed bags, and tie into manageable bundles**
- ☐ **In some cases container tops need to be removed and kept in a separate bag**
- ☐ **All bags/liners should be labelled with their contents (and any contract number provided by a collector)**
- ☐ **Store on a firm surface, preferably on concrete. This reduces the likelihood of bagged waste ripping and slipping, as well as keeping the plastic cleaner**
- ☐ **Keep storage time to a reasonable minimum (The Waste Regulations stipulate a maximum of 12 months except for small quantities intended for recycling)**

These practical guidelines have been developed to help farmers prepare for the collection and recycling of agricultural waste plastics under a national producer responsibility scheme. Farmers currently involved in organised waste collection schemes are advised to check with their individual collector or disposal site as to how they wish waste to be stored, separated and/or delivered.

More detailed information on the handling, segregation and storage of AWP can be found on the Programme's website: **www.agwasteplastics.org.uk**

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Programme managed by CIWM (EB)
and funded by the Defra BREW programme

The Agricultural Waste Plastics Collection and Recovery Programme was set up to assist the Government's development of a Producer Responsibility scheme for non packaging farm plastics that might ultimately encourage the majority of all farm plastics to be collected and recovered.

A key objective of the Programme was to identify best practice for the cost effective collection and recovery of agricultural waste plastics (AWP). Throughout the duration of the Programme, particularly through the running of trials and research projects, a substantial amount of information concerning good practice for farmers and collectors of AWP was identified.

Whilst details of the Government's proposals in terms of draft Regulations and consultation are not likely to emerge before 2008, there are a number of measures that farmers in particular should be looking to address now in order to facilitate future recycling of waste plastics and avoidance of landfilling.

The following general guidance is provided whilst acknowledging that there are significant regional variations in the types of AWP arising and varying quality specifications set by current collectors.

Waste Reduction

The waste hierarchy is key to good waste management practice and will help to reduce costs. The hierarchy promotes a logical process to consider in turn:

- Avoid – is the product or service that produced the waste needed and can it be avoided?
- Reduce – consider ways of minimising waste
- Re-use – is there a way of making use of waste?
- Recycle – recycling waste is a preferred option compared to disposal
- Recover – waste to energy may be an option
- Dispose – this should be the last option considered

Examples of plastic waste minimisation on the farm:

- Consider re-use of fertiliser bags and liners (e.g. use liners to contain other AWP)
- Handle crop cover carefully to facilitate re-use a second or third season
- Optimise the number of wraps used on a bale with the quality of silage expected
- Re-use clamp film (e.g. use this year's top cover down the side of clamps next year)

More comprehensive guidance on minimising agricultural waste can be found in the Defra publication 'Saving Money by reducing Waste. Waste minimisation manual: a practical guide for farmers and growers.' (PB11674. Defra, 2006). SEPA has published guidance for farmers in Scotland, available for download from **www.sepa.org.uk/pdf/publications/leaflets/agric/agric_and_waste.pdf.**





Minimising Contamination

Contamination of AWP adds considerably to its total weight, increasing costs of transportation and devaluing the material. It can account for over 80% of silage and crop cover plastics' weight.

The dirtier the plastic, the more cleaning is required to be carried out by a reprocessor before it can be recycled. Heavily soiled material can be rejected.

Contaminants found in AWP include:

- Soil
- Water
- Manures and slurries
- Straw
- Crop residues
- Water rinse with agro-chemicals (in the case of rigid containers)
- Foreign objects (stones, tyres, metal objects)

Avoiding Contamination

There are benefits to farmers from ensuring AWP is kept as clean as possible. The Programme recommends:

- Store silage bales on concrete areas where possible and remove wrap prior to transporting the bales to the feeding area. Handle all silage film from bags and clamp to avoid dragging on soiled areas
- Where possible, remove crop covers from the field in optimum dry conditions to avoid excessive contamination
- Empty, triple rinse and drain all agro-chemical containers; dispose of contaminated water safely
- Diligence to fully empty out packaging e.g. fertiliser and seed bags – shake or brush if appropriate
- Segregate and bag or store the plastic waste as it arises (not after it has blown around the farm)

The more farmers can reduce contamination, the less likely it is that loads will be rejected thereby helping to reduce collection and processing costs and the associated environmental burden.

Methods of Storage

The following recommendations cover how best to store AWP:

- Store AWP together at one site to ease collection/loading
- Segregate by product type and packaging/ non-packaging
- Store AWP in a suitable container, where possible, to protect the material from rain and wind, e.g. use a fertiliser bag liner or a dedicated bin
- Store AWP in a sheltered location protected from rain and wind, preferably undercover
- Secure AWP to avoid it blowing away
- Compact AWP where possible to aid with collection and to reduce space required on site (e.g. in a bin or a bag liner)
- Squash and flat pack packaging e.g. sacks and fertiliser bag outers, and tie into manageable bundles
- All bags/liners should be labelled with their contents (and any contract number provided by a collector)
- Store on a firm surface, preferably on concrete. This reduces the likelihood of bagged waste ripping and slipping, as well as keeping the plastic cleaner
- Keep storage time to a reasonable minimum (The Waste Regulations stipulate a maximum of 12 months except for small quantities intended for recycling)

From 30 October 2007, non-hazardous waste must be treated before it can be landfilled. This requirement stems from the Landfill Directive and will prohibit farmers from delivering untreated plastic for landfill disposal unless at least some of the other waste produced by the farm is diverted away from landfill. Sorting, segregation or cleaning of AWP will count as treatment. Not all plastic products are recyclable, and there are varying costs and values associated with different plastic types. Therefore, segregation of AWP on farm is an essential requirement if recycling tonnages are to be maximised.

Product Types and Segregation

Sorting by product type is by far the easiest way of treating AWP on farm, i.e. wrap and sheeting, polytunnel and crop film, feed bags, fertilizer bags, string and netting. Suggested methods of segregating AWP are:

- Separate out different product types, packaging and non-packaging, and store them using different bags, bins or liners
- It helps when filling bags to secure them in a rigid container. (Brand name bins can be used, or pallets/ hurdles formed into a 'pen')
- Use clear bags for containment of agro-chemical containers to enable visual inspection and safe handling
- Separate products by hand to avoid cross contamination
- Separate bale net-wrap from string or other AWP
- Remove inners from outers of large fertiliser/seed bags (and use the liners for containment of segregated plastics)
- In some cases tops/caps must be removed from containers and kept separately

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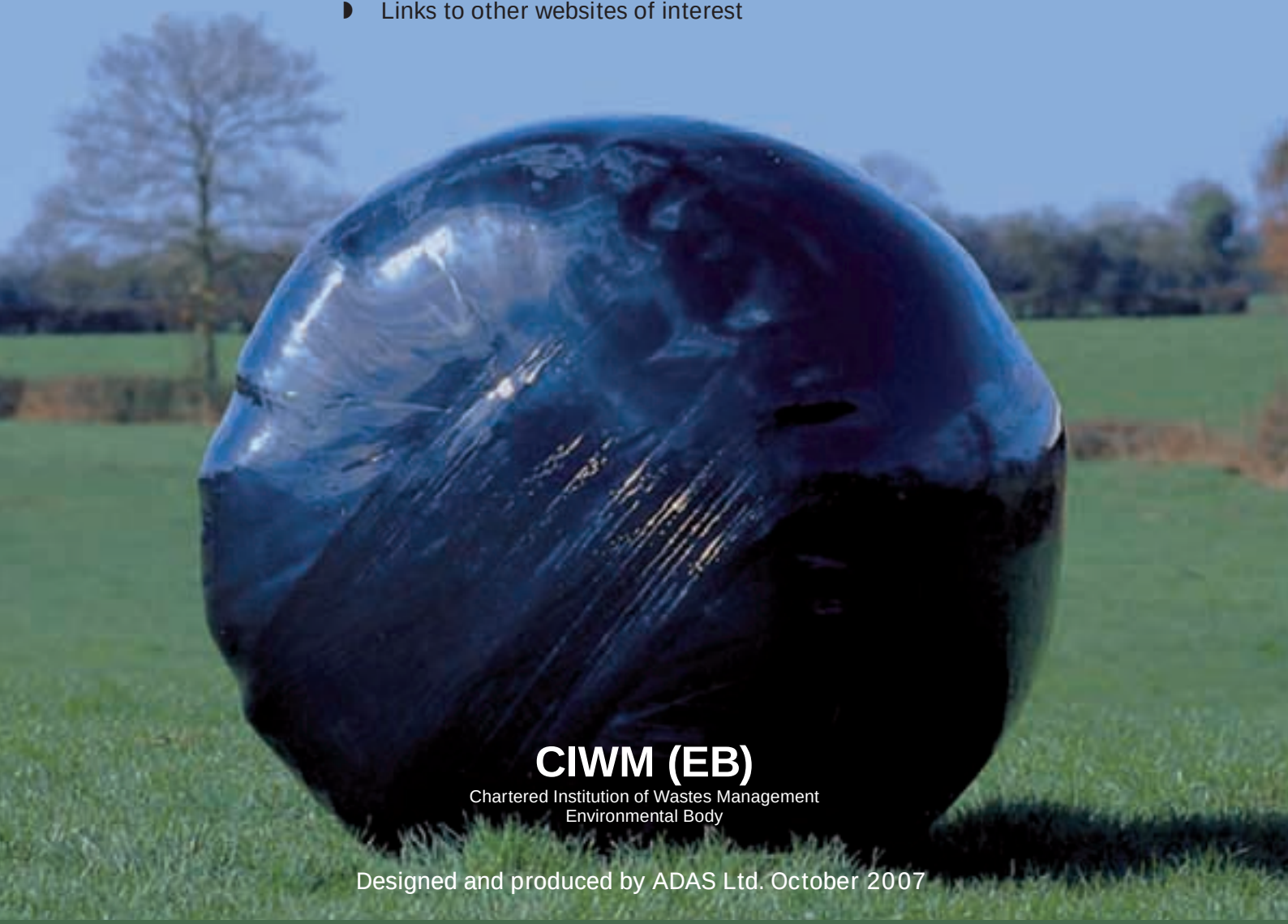
Further Information

Further information and links to associated documents can be found at the Programme's website: **www.agwasteplastics.org.uk**

The website aims to be the definitive source of information about the Programme and provides additional information such as:

- A searchable database of collectors
- Details of UK reprocessors
- Programme news and press releases
- Useful documents about agricultural waste plastics
- Copies of Programme publications
- Links to other websites of interest



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Designed and produced by ADAS Ltd. October 2007