

Introduction

This paper states the views of the UK trade bodies that represent the biodegradable waste management sector: the Anaerobic Digestion and Bioresources Association, the Environmental Services Association and the Renewable Energy Association. The Chartered Institution of Wastes Management and the Anaerobic Digestion Operators Working Group in the UK also endorse this paper. Please see section D for more information about these associations and ADOWG.

Our views are a response to the intentions expressed by DG Enterprise for revision of the EU Fertilisers Regulation. These include the setting of end of waste criteria for composts and digestates derived from biodegradable wastes. We understand that such inclusion will result in any national EoW criteria with the same scope becoming superseded by the revised EU Fertilisers Regulation.

Section A - Objections to establishing End of Waste criteria at EU level

Our associations and ADOWG fully support the principle of End of Waste (EoW) criteria for biodegradable waste. The UK's existing EoW criteria and certification schemes (PAS100 for compost and PAS110 for digestate and the respective Quality Protocols) have played a hugely important role in establishing markets and improving quality.

We ask that EoW criteria for composts and digestates are not established **at EU level** (stand alone or within another regulation) because of:

1. ***disrupted contractual arrangements and increased costs*** - in England contracts for treating (composting and digesting) source separated biodegradable wastes often require compliance with UK EoW criteria, in Wales and Scotland such compliance is specified in contracts because of requirements for proving recycled tonnage and meeting the recycling targets. If our UK EoW criteria become superseded by EU level EoW criteria this will incur time and costs switching to the new criteria (contractual renegotiations, training, labelling etc), which will mean contracts having to be renegotiated, with any subsequent costs.
2. ***disproportionate measures for limited benefits*** – due to the relatively bulky and low value nature of compost and digestate transport costs quickly offset value, making the market inherently local, regional and national rather than international. Development of individual Member State EoW criteria can be aided by the information provided in JRC-IPTS report¹ and bi-lateral agreements can be made where there is demand for trade of compost/digestate EoW products across the border between two Member States.
3. ***European biowaste sectors being distinctly different from each other*** - individual Member States' industries vary in terms of typical feedstock mixtures treated and characteristics of outputs, therefore any EU wide proposal will be sub-optimal for each of the Member States in at least some respects.
4. ***opaque process which ignores real differences in views*** – previously, DG ENVI decided not to try to establish EU level 'stand alone' EoW criteria due to lack of consensus on aspects of the proposed criteria, and these differences in views on End of Waste have not gone away. A number of the proposed safety requirements are not backed up by risk based evidence or have no harmonised and validated methods for being measured, requiring more work before being put into legislation.

¹ European Commission Joint Research Centre, Institute for Prospective Technological Studies, 2014, End-of-waste criteria for biodegradable waste subjected to biological treatment (compost & digestate): Technical proposals, Seville, Spain, Report EUR 26425 EN, ISBN 978-92-79-35062-7 (pdf).

Section B - Objections to proposed criteria

In the event that DG ENTR continues to propose in the Fertilisers Regulation EoW criteria for composts and digestates made from biodegradable wastes it will be essential that there is a smooth transition for operators who already comply with UK EoW criteria. It is especially important that existing market demands are not reduced and that operators are not subject to disproportionate costs, either in transition or ongoing compliance. We are particularly concerned about the proposal for the reasons stated below.

1. ***Insufficient risk based evidence*** – The European Commission has on several occasions admitted that many of the limit values (safety requirements) proposed for the revised Fertilisers Regulation are not risk based (e.g. matched to known toxicity thresholds relevant to how the material will be used). Most limits relevant to composts and digestates seem to reflect a compromise between quality achieved by industries (by checking limited data) and differing limits in EU Member States' existing standards. In our view, this is not an acceptable way to set safety and quality criteria for fertilisers, soil improvers and growing media. It will exclude composts and digestates at least some of the time, despite them not exerting toxic effects and conferring agronomic/horticultural benefits. If the Commission is to set regulatory requirements it should first ensure that appropriate scientific research is done and sufficient industry data is collated and reviewed.
2. ***Variability of products derived from biodegradable wastes*** – Organic fertilisers and soil improvers are produced from a range of feedstocks, mainly different types of food waste, green waste, manure, crop residues and in the case of digestates, energy crops. The amount of organic matter, organic carbon and nutrients in this feedstock varies seasonally and from year to year and some of this variation is reflected in the fully treated compost and digestate. In addition, concentrations of reserve and plant available nutrients already in the soil vary (both within and between the EU member states). Crop nutrient needs and rotations also vary. **Parameters relevant to agronomic value should not be subject to minimum concentration requirements.**

Instead, the revised regulation should require that typical concentrations of agronomic value parameters are declared on the label of pre-printed packaging / product information. This will help users to compare different products and decide which product best suits their needs. Actual concentrations in the batch(es) supplied can be informed to the customer by sending the laboratory test results report, if the batch(es) of product have been sampled and tested in advance of dispatch (customers in professional markets often require this). Depending on needs and constraints (e.g. total nitrogen loading rate under Nitrate Vulnerable Zone rules) farmers can spread more or less of any given material.

The quality requirements (e.g. minimum organic carbon applicable to organic fertilisers and organic soil improvers, and minimum nutrients applicable to organic fertilisers) should not be based on limited statistics from selected databases on quality of composts and digestates. To date, we are not aware of much attempt to check seasonal and year to year variation experienced by individual plants, which will be greater than any variations in nutrient concentration in inorganic fertilisers (those manufactured from minerals).

3. **Potential criteria for 'agronomic value' put UK compost products at a competitive disadvantage** – DG ENTR's proposed minimum requirements for 'agronomic value' (organic carbon, total nitrogen, total phosphate and total potash) are so high for the 'organic fertiliser' (OF) category that the large majority of our composts products (see Annex 1) would not qualify². Although the large majority would qualify for the 'organic soil improver' (OSI) category its minimum 'agronomic value' requirements are lower. Due to these differing requirements OSI will be perceived as lower value than OF, and so the large majority of UK composts would be disadvantaged when compared with material that qualifies for the OF product category.
4. **Potential criteria for 'agronomic value' pose a significant threat to the UK AD industry** – DG ENTR's proposed minimum levels for organic carbon in OF and OSI categories will disqualify all UK liquid digestates (whole digestates and separated liquors) whose data we have analysed, these having been used as 'product' in UK markets. Nearly all of these digestates also would not qualify as OF because their concentrations of total nitrogen, phosphate and potash are lower than DG ENTR's proposed minimum concentrations. In our dataset, all separated fibre digestates would not qualify as OF because their concentrations of organic carbon are too low, and nearly 22 % of them would not qualify as OSI for the same reason. REA has sent detailed, anonymised data analysis to DG ENTR as evidence underpinning statements in items 3 and 4. Annex 1 provides statistics calculated from the same dataset of UK EoW digestates.

We are disappointed by proposals which set a lower minimum organic carbon concentration in OSIs than in OFs; this is out of line with farmer expectation that resources containing relatively high amounts of organic matter (or organic carbon in this context) are 'soil improvers'. Liquid digestates with low organic carbon content tend not to be regarded as soil improvers. Please see our more detailed comments in section C 5.

The effects of not complying with the revised EU Fertilisers Regulation and the UK EoW criteria becoming superseded would be more liquid digestate being spread on land as 'waste'. The financial impact would be considerable (see Figure 1 below) and significant consolidation in the sector is likely. One producer member has commented: 'There are many examples where feedstock supply contracts (including municipal/local authority) are successfully secured on the basis that the digestate is produced to a quality standard that results in the material being classified as a recognised 'product' and NOT a waste. If these Regulations undermine confidence with feedstock suppliers and the end uses of the digestate then we are in significant danger of irreversibly damaging the emerging food waste AD industry in the UK.'

² This footnote is relevant also to item 4 above in section B: we have heard that proposed (15th October 2014, at EBA workshop) minimum concentrations of organic carbon and nutrients were not adjusted when DG ENTR changed these from '% in dry matter' to '% in fresh matter' (the latter meaning 'in the commercial product' or 'as received').

Figure 1. Example of impact if one of our producer member's digestate becomes disqualified as a product

Financial implication of 'waste' status output	Euros excluding taxes	
	Approx min	Approx max
Input tonnes processed per annum: 55,000		
Annual cost of authorisations for spreading digestate as waste: *	-24,000	-36,000
Annual cost of soil analysis prior to spreading digestate as waste:	-900	-1,800
Authorisation of stores to hold digestate as waste: **	-1,872	-1,872
Staff time cost	-22,200	-23,100
Deficit	-48,972	-62,772
Note: minimum for annual cost of authorisations anticipates some loss of customers who previously bought 'product' but aren't replaced by others.		
* Excludes initial charge of 864 euros.		
** Excludes initial charge of 3912 euros.		
Financial implication of 'product' status output	Euros excluding taxes	
	Approx min	Approx max
Annual product sales revenue:		182,700
Annual cost of digestate sampling, testing & 3rd party certification *		-7,200
Staff time cost		-18,000
Revenue		157,500
* As per current PAS 110 and Digestate Quality Protocol (UK End of Waste criteria for digestates).		
Difference	Euros excluding taxes	
	Approx min	Approx max
	206,472	220,272

The UK is the member state that will be most heavily, adversely impacted because our existing EoW criteria (which work very well) will become superseded and minimum agronomic value criteria may be so high that all of our total annual production of liquid digestate products will revert to being waste, as too would approximately 22 % of our separated fibre digestates. Compost product sales revenues would be reduced as the majority of them would be relegated to being marketed as OSI rather than OF, and a minority percentage of compost products will revert to being waste.

We urge the Commission not to specify EU End of Waste criteria (stand alone or within any other regulation) until;

1. evaluation of sufficient risk based evidence has been done,
2. data on the achieved quality of composts and digestates (solid and liquid) has been reviewed in depth (e.g. variations according to season, year, feedstocks and duration of treatment),
3. harmonised methods of test are available for each parameter and include repeatability and reproducibility data, and
4. a programme of laboratory performance assessment and 'approval for testing' can be completed before any transition period for compliance with EU EoW ends.

Remaining opportunity to influence

Given the controversy over the JRC-IPTS recommendations and concerns we have expressed about currently proposed revisions to the EU Fertilisers Regulation we call for reasonable opportunity to;

- review and comment on a draft of the full proposals before they are finalised,
- provide our impact assessment, and
- review and comment on the impact assessment carried out by or for DG ENTR.

Section C – Further comments

This section sets out some further comments on some of the topics covered in sections A and B. It also includes comment on other topics that are relevant if DG ENTR continues propose inclusion of EoW criteria in a revised EU Fertilisers Regulation. As stated in section A, we ask that EoW criteria are not established at EU level, whether stand alone or part of a revised regulation.

Our comments on the safety limits and minimum agronomic values proposed in the DG ENTR presentation at the EBA workshop on 15 October 2014 are made in this section.

1. Fresh rather than dry matter

1.1 Basis for limits and minimum agronomic criteria

Safety limits and minimum agronomic criteria should be set on a fresh matter basis.

Please see the attached Excel document titled 'Impurities and heavy metals illustrations of loadings and limits'. The worksheet 'Illustration of loadings' shows how different approaches to limit setting affect loading rates per hectare heavy metals. The same limit on a % dry matter basis allows increasing impurities loadings per hectare as dry matter content increases, and assuming 1 kg total N per fresh tonne of digestate (see example 1). A scale of limits according to total N per fresh tonne of digestate (and compost) should more evenly control loadings of impurities per hectare.

The worksheet 'Impurities & HMs limits' shows how the 'scales of limits according to total N in fresh digestate' were calculated for the 2014 edition of PAS 110 (part of UK EoW criteria for digestates).

Please note that we are not at this stage suggesting use of PAS 110:2014's fresh matter based limits in the revised EU Fertilisers Regulation. Further work would be needed to: check whether a fresh matter approach could and should also apply to inorganic fertilisers, other soil improvers and growing media, and; assess the impact of calculated limit values that seem appropriate (based on currently available data).

In addition to the issues outlined above in this sub-section, we now respond to concerns expressed by others about risk of dilution and difficulty in comparing products if safety limits and minimum agronomic criteria are set on a fresh matter basis.

1.2 Dilution

It is not in a producer's interest to dilute because;

1. it will increase costs of transporting product to the customer (e.g. already in the case of composts the maximum load per vehicle is limited by its weight rather than its volume so a significant increase in moisture content could result in extra vehicle journey(s) or prevent sale due to excessive transport costs),
2. it will reduce the value per tonne of product (assuming the diluent is water),
3. in the case of composts and separated fibre digestates any dilution with water risks increasing bulk density beyond what customers will accept (manufacturers of growing media particularly demand low bulk density composts and keeping moisture content as low as possible is important for achieving low enough bulk density),

4. dilution could be discovered during independent, 3rd party sample taking and 3rd party certification being withdrawn (assuming 3rd party certification is required), and
5. dilution could be inferred from 3rd party comparison of results of producer-taken samples and independently taken samples (assuming that all samples will not have to be independently taken),

Relevant to the basis on which limits are set, choosing on a dry matter basis does not prevent dilution by adding 'safe' solids (e.g. sand from non-contaminated land) or mixing in a higher quality portion of production.

Site inspections, by 3rd party assessors, after a very short notice period have been a valuable for checking feedstocks and output quality in the UK.

1.2 Comparing and choosing products

When choosing compost and digestate products most customers want to know their agronomic 'value' characteristics (e.g. nutrients and organic matter) on a fresh matter ('as received') basis. This would be consistent with current fertiliser declarations on a 'product as received' (fresh matter) basis. A minority who want to know these and other characteristics on a dry matter basis can ask the producer for that information. For many of the agronomic 'value' parameters, some UK laboratories already report results on both dry matter and fresh matter basis and this could be extended to all labs and include safety parameters, if necessary. It is usually most efficient to provide copies of laboratory reports when customers want more information.

Most customers do not compare products in terms of safety characteristics; they trust that if a declaration of conformity has been made (and if a valid 3rd party certificate is held) that the batch(es)/portion(s) of product supplied comply with the relevant standard/End of Waste criteria.

Information declared should include whether the product is solid (not pumpable) or liquid (pumpable).

2. Safety criteria

2.1 DG ENTR has proposed that heavy metal (also known as Potentially Toxic Element) limits will apply to organic fertilisers (solid and liquid) and organic soil improvers (solid and liquid) derived from biodegradable wastes.

Parameter	DG ENTR's proposed limit	UK trade bodies' proposal	Justification
As	not applicable (tbc)	Not applicable	Not likely to be present at concentrations toxic to plants. Review available research.
Cd	1.5 mg/kg dry matter	Equivalent to 1.5 mg/kg dry matter, converted to fresh matter basis	Established EoW criterion in the UK and see section C 1 above.
Cr VI	2 mg/kg dry matter	Equivalent to 'Cr total': 100 mg/kg dry matter, converted to fresh matter basis	Established EoW criterion in the UK and see section C 1 above. Cr VI believed to be very susceptible to breakdown in organic materials, therefore concentration likely to be very low or nil.

Hg	1 mg/kg dry matter	Equivalent to 1 mg/kg dry matter, converted to fresh matter basis	Established EoW criterion in the UK and see section C 1 above.
Ni	50 mg/kg dry matter	50 mg/kg dry matter	Established EoW criterion in the UK and see section C 1 above.
Pb	120 mg/kg dry matter	Equivalent to 200 mg/kg dry matter, converted to fresh matter basis	Established EoW criterion for composts in the UK and see section C 1 above.

2.2 Lead (Pb) in compost derived from urban biodegradable wastes

During the JRC-IPTS study we informed them about elevated lead (Pb) concentrations in some UK composts derived from urban biodegradable wastes. This was acknowledged on page 85 of their report, as follows: 'Nonetheless, the extensive REA data for the UK indicate that for all heavy metals more than 99% of the materials respect the proposed limit value, except for Pb where 27.5 % of the samples fail the proposed EU end-of-waste Pb limit. The somewhat older data from the Irish Metal Database also indicate relatively high Pb values for green waste compost. Certain TWG experts have suggested that these cases are due to historical pollution from the extended use of leaded fuels.' The report authors then wrote (page 86): 'Some composting/digestion technologies or input materials might lead to a lower likelihood of meeting the proposed limit values than others. Nonetheless, in all categories samples were encountered that met the proposed limit values and other samples were encountered that exceeded the proposed limit values.'

Our response to this is that:

1. 27.5 % of samples exceeding a proposed limit was probably the highest proportion for any single Member State's industry when examining compliance with proposed heavy metals limits
2. a limit of 200 mg/kg dm the same as or similar to some EU MS's existing lower class quality requirements for composts made from source separated biodegradable wastes,
3. 120 mg/kg dm was proposed as a compromise (Annex 3 of JRC-IPTS report shows the range of Pb limits in use in EU MSs), and
4. research has not established the concentration at which Pb would exert unacceptable toxic effects on receptors, in the context of using composts and digestates.

Where the collection catchment is extensively urbanised and there is or has been a sustained, high density and flow of road vehicle traffic we believe that Pb in compost is likely to be higher than average for UK composts, at least some of the time (the widespread phasing out of leaded petrol occurred later in the UK than in other EU Member States.) One producer in this kind of collection catchment has recently supplied us with Pb data for 2011 – 2014 which shows an average concentration of 169 mg/kg dm, a maximum of 199 mg/kg dm and a minimum of 144 mg/kg dm.

We call for a **Pb limit on a fresh matter basis**, which is **equivalent to 200 mg/kg dry matter**. Such a limit would enable UK producers in extensively urban catchments to continue putting their composts on the market as product. In the event that a Pb limit is set lower, we call for a 5 year period during which UK composts are assessed against the Pb limit we have called for. This would allow further time for reduction of Pb in urban environments.

2.3 Polyaromatic hydrocarbons

During JRC-ITPS's study the Association for Organics Recycling (AfOR, before merging with REA) commented in detail (on 21/09/2012) on why testing and limits applicable to a total of 16 PAH congeners (PAH_{16}) would not be necessary. It was unclear on what basis the Member States that have set PAH limits have chosen those limits; their approaches seem to have set such limits 'As Low As Reasonably Achievable' rather than determine toxicity thresholds for the environment, animals and humans.

We concluded, and still believe, that the cost of testing PAH_{16} (€142 per sample, excl tax) would be disproportionate to the marginal benefit of detecting rare, above limit concentrations of PAH_{16} in composts and digestates made from source-segregated biodegradable wastes, especially in Member States with experience in collecting and transforming these wastes into products.

3. Macroscopic impurities

DG ENTR has proposed that macroscopic impurities limits will apply to organic fertilisers (solid and liquid) and organic soil improvers (solid and liquid) derived from biodegradable wastes.

Parameter	DG ENTR's proposed limit	UK trade bodies' comment
Polystyrene and films above 5mm	0.5 % in dry matter	Inappropriate to divide macroscopic impurities limits in this way.
Other plastics above 5mm	0.8 % in dry matter	Additionally, the total is 1.8 % (assuming in dry matter) which is higher than in most EU Member States' quality standards.
Glass and metal above 2mm	0.5 % in dry matter	

UK trade bodies' proposal		Justification
Parameter	Limits	
All macroscopic impurities (glass, metal, plastic) > 2 mm in any dimension	The fresh matter equivalent of 0.25 % in dry matter, within which polystyrene and plastic films do not exceed 0.12 % in dry matter.	Equivalent to established UK EoW criteria for composts (with amended description for sub-limit), less stringent than revised UK EoW criteria for digestates. See section C 1 above.
Exemptions: <u>Separated</u> liquid digestate if all particles in this fraction are < 2 mm. Manures composted or digested on their own or only with energy crop.		In testing, any macroscopic impurities < 2 mm are not quantified and reported. Manures and energy crops do not contain macroscopic impurities.

4. Agronomic quality requirements

Here we call for no minimum agronomic quality requirements for organic fertilisers and soil improvers and in sub-section 5 below we have suggested a single category 'organic fertiliser / soil improver'.

4.1 Solid Organic Fertiliser (above 15 % DM)

Parameter	DG ENTR's proposed minimum	UK trade bodies' proposal	Justification
Min Corg (all)	10 % in fresh matter	No minimum. Declare concentration on % fresh matter basis ('as received') in labelling / product information	See section B and sub-section 5 below.
Min N (and/or)	1.5 % in fresh matter		
Min P ₂ O ₅ (and/or)	0.5 % in fresh matter		
Min K ₂ O (and/or)	0.75 % in fresh matter		

4.2 Liquid Organic Fertiliser (below 15 % DM)

Parameter	DG ENTR's proposed minimum	UK trade bodies' proposal	Justification
Min Corg (all)	5 % in fresh matter	No minimum. Declare concentration on % fresh matter basis ('as received') in labelling / product information	See section B and sub-section 5 below.
Min N (and/or)	1.0 % in fresh matter		
Min P ₂ O ₅ (and/or)	0.3 % in fresh matter		
Min K ₂ O (and/or)	0.5 % in fresh matter		

4.3 Liquid Organic Soil Improvers

Parameter	DG ENTR's proposed minimum	UK trade bodies' proposal	Justification
Min Corg – organic soil improvers in liquid form	2 % in fresh matter	No minimum. Declare concentration on % fresh matter basis ('as received') in labelling / product information.	See section B and sub-section 5 below.
Min N	No minimum, declare in labelling.	No change	Not applicable
Min P ₂ O ₅	No minimum, declare in labelling.	No change	Not applicable
Min K ₂ O	No minimum, declare in labelling.	No change	Not applicable

4.4 Solid Organic Soil Improvers

Parameter	DG ENTR's proposed minimum	UK trade bodies' proposal	Justification
Min Corg – organic soil improvers in liquid form	5 % in fresh matter	No minimum. Declare concentration on % fresh matter basis ('as received') in labelling / product information.	See section B and sub-section 5 below.
Min N	No minimum, declare in labelling.	No change	Not applicable
Min P ₂ O ₅	No minimum, declare in labelling.	No change	Not applicable
Min K ₂ O	No minimum, declare in labelling.	No change	Not applicable

5. Distinction between and 'organic fertilisers' and 'organic soil improvers'

Numerous recycled organic materials are beneficial to soils both as a fertiliser and as a soil improver; such materials include composts and digestates derived from source separated biodegradable wastes. Categorising products as 'organic soil improver' or 'organic fertiliser' is counterproductive and does not serve a worthwhile purpose. The categorisation highlights the existing problem of valuing soil improvement in the long term versus short term 'quick fix' nutrient input. If long- and short-term improvement is encouraged at the same time, both agronomic and environmental gains may be made from our soils and 'Good Agricultural and Environmental Condition' may be achieved.

UK industry is concerned that farmers will perceive 'organic soil improvers' as lower value than 'organic fertilisers'. This is partly because there are no existing studies which place a clear economic value on improved soil, even though some farmers who have repeatedly used compost at 'good practice' rates have found that soil cultivation is easier and some crops have produced marketable yields after periods of very little rainfall (when they otherwise would not have done). Due to these perceived differences in value according to product category name, if most digestates only qualify as 'soil improver' sales revenues will be adversely affected.

The categories are an artificial and unnecessary division; composts and digestates can both fertilise and improve soils. The extent to which any individual compost or digestate confers each of these benefits depends on its characteristics. For example, a compost or solid digestate will not cease to improve soil if it contains 4 % organic carbon (in fresh matter) rather than the 5 % minimum proposed. The possibility and common reality of regular applications to the same soil over the medium- to long-term means that valued soil improving effects occur.

Currently no lower limit for organic carbon exists in artificial fertiliser manufacturing nor is such a lower threshold seen in artificial fertiliser application guidelines, so it is unclear why they should be applied to recycled material through the Fertiliser Regulations. Composts and digestates will contain organic carbon, allowable input materials to treatment processes are expected to be restricted to biodegradable wastes that contain a significant percentage of organic carbon, and setting minimum concentrations is not a reliable way to check whether only allowable input materials have been treated. We are concerned that the proposed minimum criteria for agronomic value reflect the interests of inorganic fertiliser manufacturers too much.

We suggest that 'organic fertiliser and soil improver' (OFSI) is a suitable description for a single category, i.e. only one category under which composts, digestates and other organic soil fertilising/improving materials can qualify. Composts and digestates could belong to this category according to definition of being made from biodegradable wastes on the positive list and produced by treatment of composting or digestion. 'Organic fertiliser and soil improver' is a classification in the animal by-products regulations and users of composts and digestates derived from such feedstocks are familiar with it.

Farmers will choose an individual product after comparing offered products' values on a per fresh tonne basis, in terms of;

1. Fertiliser Replacement Value for primary and secondary nutrients (both in the short and longer term within the crop rotation),
2. organic matter (or organic carbon) content (particularly in improving soil characteristics and growing conditions),

3. potential liming value (to maintain or neutralise acidity to achieve optimum soil pH for the crops grown), and
4. additional trace elements the material may provide.

6. Stability test and limit

Stability criteria were not included in DG ENTR's presentation on 'Possible provisions on products deriving from digestates' at the EBA Meeting on 15 October 2014. JRC-IPTS has previously recommended inclusion of stability in End of Waste criteria for composts and digestates derived from biodegradable wastes. We understand from email exchanges that DG ENTR intends to include stability criteria applicable to fertilisers made from biodegradable waste (and any mixtures of allowed biodegradable waste and non-waste feedstocks).

Given that there is no Europe-wide, standard (harmonised) test for digestate stability, we believe the best option is to modify the JRC's proposed approach, which would allow Members States to choose between different methods and associated, established limits (including the UK EoW Residual Biogas Potential test and limit for digestates). In the case of the Residual Biogas Potential test, the UK's revised PAS110:2014 now sets a limit of 0.45 l biogas/g volatile solids. Digestate stability criteria in the EU Fertilisers Regulation should at least reflect this change.

We prefer that the regulation **just requires a 'stability test and limit set by the Member State competent authority'** because limits set in the regulation in 2015 will become out of date as scientific research progresses. This suggested approach also enables each country to take account of the costs of different stability tests. Until harmonisation, guidance could be provided on suitable test methods, associated limits in use and the benefits and limitations of each.

Whichever is decided, until harmonisation is achieved it will be important to require that;

1. Each Member State competent authority chooses a single test and associated limit for digestate and a single test and associated limit for compost (to ensure fair competition between all producers of digestates and all producers of composts within the Member State),
2. 'Materials being produced in one Member State and used or put on the market in a different Member State shall meet the requirements of both Member States for the stability criterion unless the receiving Member State recognizes the method of the producing Member State.' (excerpt from JRC-IPTS recommendations).

Future agreement of a harmonised test and limit is likely to be difficult due to:

1. already not equivalent stability requirements (in Member States' respective standards and UK EoW criteria) and;
2. differences between EU Member States who have already significantly invested in anaerobic digestion (mainly in terms of feedstock characteristics, typical processing, financial pressures and sustainability aims.)

The value of using a harmonised test and limit in future is questionable because little digestate and compost is traded across EU Member State borders, stability limits tend to be used as a tool for ensuring 'full recovery', and established stability limits are not equivalent. Compliance with the Member State's stability requirement for use within the same country as produced would be sufficient and compliance with any bi-laterally agreed criteria would be sufficient where compost/digestate is supplied for use in a Member State different from the country in which it was produced.

7. Seveso III directive

The implementation of Seveso III in Member States from 2015 has potential implications for waste and non-waste digestates, which could be subject to controls for the first time, unless operators can prove that their digestates are below the thresholds for material to be categorised as an 'aquatic pollutant'. This should be considered in impact assessments for the Fertiliser Regulations, and the Commission should work to clarify whether there is a 'waste' exemption in Seveso III and if 'yes', to ensure that it applies to all anaerobic digestion sites, and not only landfill.

8. Manufactured topsoils

UK End of Waste composts have a good track record as an ingredient in manufactured topsoils and UK End of Waste solid digestates are allowed to be used in land restoration (which can include bringing manufactured topsoil onto the restoration site for use as the top layer material). Topsoil manufacture is usually done by companies who are not producers of composts and digestates, so some quantities are placed on the market and traded for topsoil manufacturing purposes. Placing compost / digestate on the market for this purpose does not involve claim that this resource is a fertiliser. In addition, users don't search for 'fertilisers' when they are trying to find suitable manufactured topsoils .

Please make clear whether each of the following will be within or outside the scope of the revised EU Fertilisers Regulation (rEUFR):

- placing compost / digestate on the market for use as an ingredient in manufactured topsoil
- placing on the market manufactured topsoil that includes compost / digestate as an ingredient

Please bear in mind that the UK has a detailed quality standard for manufactured topsoils (British Standard 3882). Our standard includes criteria for general purpose manufactured topsoils as well as different criteria for specific types of habitat, e.g. where soil is acidic or calcareous. If the rEUFR were to include manufactured topsoils then UK industry would want the regulation to recognise 'any publicly available standard for manufactured topsoil recognised by the Member State competent authority or an equivalent standard'. We would not want the rEUFR to set inappropriate criteria for the range of manufactured topsoils that markets already use.

If the manufactured topsoil product category is outside the scope of rEUFR then UK industry will call for UK competent authorities to retain UK EoW criteria for composts and solid digestates placed on the market for use in topsoil manufacture. (We understand that UK EoW criteria with the same scope as rEUFR will become superseded by this revised EU regulation.) Notification to the European Commission would be made in due course, under requirements of the Technical Standards and Regulations Directive.'

9. Clarity about acceptable product types and markets

Please clarify the product types that composts and digestates can become when they comply with each relevant product category in the rEUFR. Where compost or digestate is the sole ingredient 'organic fertiliser' and 'organic soil improver' are obviously suitable product types. Uncertainty arises in the case of products that include other ingredients (examples are manufactured topsoils and the diverse product range traded as 'growing media'). Will there be any restriction on which markets each product type can be used?

10. Assuring quality

10.1 Minimum frequency of sample taking and testing

We believe that minimum frequency of sample taking and testing applicable to composts and digestates would be best specified in EU guidelines rather than in the rEUFR. This would enable quicker and easier update in future and 3rd party certification schemes (termed 'Quality Assurance Scheme' in European discussions) could reflect the guideline minimum frequencies in the form of requirements in their scheme rules.

Minimum frequency of sample taking and testing should take account of quantity of compost/digestate output rather than waste fed into the treatment process. It should also be made clear how many of the samples must be taken and sent for testing by an independent, 3rd party. The requirements should not cause a financial barrier to small scale producers who want to place product on the market. JRC-ITPS report included some proposals on this topic.

10.2 Quality control and checks by producers

Producers of products derived from wastes should be required to control quality and check that the required quality is achieved. This should include that feedstocks are suitable, the treatment process complies with relevant criteria, samples of output are representative and sent for testing frequently enough, test results are evaluated, only the conforming portions of production are placed on the market as product, cross-contamination on-site is prevented, and product labelling/information in documents supplied to the customer is correct and sufficiently comprehensive.

10.3 Certification by an independent, 3rd party

We believe that assessment of conformance and certification by an independent, 3rd party is necessary in the case of any product category that composts and digestates derived from wastes can qualify for. Producer self-assessment and declaration of conformity is not sufficient because misunderstanding of requirements and mistakes do occur and can be on-going / repeated if not recognised.

The frequency of site visits for checking compliance should be determined by the independent, 3rd party in its scheme rules. This would enable taking into account the compliance track record of a producer and their scale of production.

10.4 Accreditation of competence to assess compliance

Sufficient time should be allowed for each 3rd party certification scheme to be assessed (e.g. by a national accreditation body) and become accredited. After introduction of a new set of EoW criteria each 3rd party certification scheme will need time to update its rules, train relevant staff, and assess at least one producer's compliance with the EoW criteria and scheme rules while being assessed by the accreditation body. From the point of being ready to be assessed it can easily take a year to achieve accreditation.

11. Transition time

In past response to JRC-ITPS during their study ADBA, REA and the UK government have stated the UK's need for sufficient transition time if EoW criteria become established at EU level. Such need would remain in the event that EoW criteria are included in the revised EU Fertilisers Regulation.

An allowed transition period needs to take into account time and financial resources required for:

1. realigning our 3rd party certification scheme (documents, procedures, training),
2. updating and renegotiating our contracts with the 3rd party certification bodies who currently audit compliance with UK EoW criteria and our certification scheme rules,
3. laboratories to review and implement any different methods of test required (e.g. organic carbon according to current proposals),
4. obtaining any accreditation required for the 3rd party certification scheme, at national level and/or at EU level (depending on what is required),
5. obtaining any accreditation required for methods of test carried out by laboratories,
6. providing guidance and training events for compost and digestate producers,
7. compost and digestate producers to renegotiate contracts and re-align inputs, processing, outputs (including sampling and testing) and their own quality checks to the new requirements,
8. providing guidance and workshops for users and specifiers of compost and digestate products, and
9. allowing producers to complete their annual cycle of 3rd party assessment of compliance with UK EoW criteria (many of which will be part way through when rEU FR comes into effect) before starting to be assessed against the new requirements.

Section D – Organisations



ADBA is the trade association for the anaerobic digestion (AD) industry in the UK. We represent plant operators, farmers, waste management companies, suppliers, consultants, funders and companies and organisations working on novel technologies and processes that compliment the anaerobic digestion process and products. With our members we promote the economic and environmental benefits of AD in the UK.

Anaerobic Digestion Operators Working Group

ADOWG is a representative body that solely represents the interests of Food Waste AD operators. Working with the operators themselves to ensure that their issues and concerns are addressed and highlighted particularly with regard to legislation, regulation, policy, support mechanisms and Government / EU strategy.



The Chartered Institution of Wastes Management (CIWM), is the professional body which represents over 7,000 waste professionals working in the sustainable resources and wastes management sectors-predominantly in the UK but also overseas. CIWM sets the professional standards for individuals working in the industry and has various grades of membership determined by education, qualification and experience.



The Environmental Services Association (ESA) is the trade association for the UK's resource and waste management sector. We work with our members to transform waste and resource management across the country. This work helps enable our members to turn Britain's waste into valuable resources, whilst continually protecting the environment. We work with all levels of government, regulators and the public to deliver a more sustainable waste and resource management solution for the UK.



The REA is a not-for-profit trade association, representing British renewable energy producers and promoting the use of renewable energy in the UK. REA helps its members to build commercially and environmentally sustainable businesses whilst increasing the contribution of renewable energy to the UK's electricity, heat, transport and green gas needs. Its membership also includes composters, following the merger of the Association for Organics Recycling (formerly the Composting Association) in 2013. The REA endeavours to achieve the right regulatory framework for renewables and organics waste recycling to deliver an increasing contribution to the UK's electricity, heat, recycling and transport needs.

UK trade bodies' views on Commission proposals for revision of the EU Fertilisers Regulation

ADBA, ADOWG, CIWM, ESA & REA, final version, 05/12/2014.

Annex 1

Statistics ~ UK's Compost Certification Scheme (for composts produced according to PAS 100, and the Compost Quality Protocol in applicable UK countries) Source: Renewable Energy Assurance Limited, data analysis by REA.

Statistics for UK composts	Dry matter in % of FM	Organic matter in % of DM	Organic carbon in % of DM	Organic matter in % of FM	Organic carbon in % of FM	N in % of DW	N in % of FM	K2O in % of DM	K2O in % of FM	P2O5 in % of DM	P2O5 in % FM
90th percentile	73.28	49.49	19.80	30.60	12.24	1.84	1.22	1.47	0.85	0.72	0.39
80th percentile	69.64	43.92	17.57	26.28	10.51	1.69	1.02	1.27	0.76	0.61	0.37
Average (mean)	60.75	37.74	15.10	22.60	9.04	1.33	0.84	0.99	0.60	0.53	0.30
10th percentile	50.00	26.77	10.71	16.64	6.66	0.83	0.57	0.55	0.36	0.35	0.21
5th percentile	46.61	23.34	9.33	15.23	6.09	0.65	0.19	0.48	0.31	0.30	0.20
Minimum	39.90	7.74	3.10	3.09	1.24	0.09	0.05	0.35	0.20	0.25	0.16
DG ENTR minimum for solid organic fertilisers	n/a	n/a	n/a	n/a	10.00	n/a	1.50	n/a	0.75	n/a	0.50
DG ENTR minimum for solid organic soil improvers	n/a	n/a	n/a	n/a	5.00	n/a	n/a	n/a	n/a	n/a	n/a
Number of samples	182	148	148	146	146	129	70	127	111	126	111

UK trade bodies' views on Commission proposals for revision of the EU Fertilisers Regulation

ADBA, ADOWG, CIWM, ESA & REA, final version, 05/12/2014.

Statistics ~ UK's Biofertiliser Certification Scheme (for digestates produced according to PAS 110, and the AD Quality Protocol in applicable UK countries) Source: Renewable Energy Assurance Limited, data analysis by REA.

Statistics for UK separated fibre digestates	Dry matter in % of FM	Organic matter in % of DM	Organic carbon in % of DM	Organic matter in % of FM	Organic carbon in % of FM	N in % of DW	N in % of FM	K2O in % of DM	K2O in % of FM	P2O5 in % of DM	P2O5 in % FM
90th percentile	37.15	90.22	36.09	22.11	8.84	7.73	1.52	0.43	1.51	0.38	15.36
Average (mean)	25.57	66.42	26.57	16.58	6.63	4.32	0.98	0.22	1.10	0.25	6.30
10th percentile	18.98	45.10	18.04	7.53	3.01	2.02	0.60	0.05	0.57	0.12	1.00
5th percentile	18.18	18.25	7.30	4.14	1.66	1.78	0.59	0.28	0.07	0.87	0.23
Minimum	8.68	14.16	5.66	3.48	1.39	1.35	0.55	0.23	0.04	0.72	0.23
DG ENTR minimum for solid organic fertilisers	n/a	n/a	n/a	n/a	10.00	n/a	1.50	n/a	0.75	n/a	0.50
DG ENTR minimum for solid organic soil improvers	n/a	n/a	n/a	n/a	5.00	n/a	n/a	n/a	n/a	n/a	n/a
Number of samples	26	23	23	23	23	23	23	23	23	23	23

Statistics for UK whole digestates	Dry matter in % of FM	Organic matter in % of DM	Organic carbon in % of DM	Organic matter in % of FM	Organic carbon in % of FM	N in % of DW	N in % of FM	K2O in % of DM	K2O in % of FM	P2O5 in % of DM	P2O5 in % FM
90th percentile	5.26	76.00	30.40	3.56	1.42	15.78	0.60	5.44	0.21	2.92	0.11
Average (mean)	3.94	68.44	27.38	2.63	1.05	12.06	0.45	3.47	0.13	2.13	0.08
10th percentile	2.84	62.37	24.95	1.85	0.74	4.47	0.20	1.82	0.06	1.38	0.05
5th percentile	2.48	59.33	23.73	1.63	0.65	3.50	0.12	1.75	0.05	1.24	0.04
Minimum	1.05	50.78	20.31	0.69	0.28	1.01	0.01	0.64	0.03	0.52	0.02
DG ENTR minimum for liquid organic fertilisers	n/a	n/a	n/a	n/a	5.00	n/a	1.00	n/a	0.50	n/a	0.30
DG ENTR minimum for liquid organic soil improvers	n/a	n/a	n/a	n/a	2.00	n/a	n/a	n/a	n/a	n/a	n/a
Number of samples	159	123	123	123	123	116	116	150	150	150	150

UK trade bodies' views on Commission proposals for revision of the EU Fertilisers Regulation

ADBA, ADOWG, CIWM, ESA & REA, final version, 05/12/2014.

Statistics for UK separated liquid digestates	Dry matter in % of FM	Organic matter in % of DM	Organic carbon in % of DM	Organic matter in % of FM	Organic carbon in % of FM	N in % of DW	N in % of FM	K2O in % of DM	K2O in % of FM	P2O5 in % of DM	P2O5 in % FM
90th percentile	6.27	75.00	30.00	3.72	1.49	20.93	0.44	10.25	0.30	1.72	0.07
Average (mean)	3.57	67.24	26.90	2.32	0.93	12.56	0.39	6.95	0.21	1.02	0.04
10th percentile	1.24	52.69	21.08	0.58	0.23	6.72	0.20	4.16	0.15	0.28	0.01
5th percentile	0.96	51.25	20.50	0.55	0.22	4.82	0.13	3.72	0.11	0.13	0.004
Minimum	0.31	46.61	18.64	0.28	0.11	2.86	0.10	3.34	0.04	0.06	0.00
DG ENTR minimum for liquid organic fertilisers	n/a	n/a	n/a	n/a	5.00	n/a	1.00	n/a	0.50	n/a	0.30
DG ENTR minimum for liquid organic soil improvers	n/a	n/a	n/a	n/a	2.00	n/a	n/a	n/a	n/a	n/a	n/a
Number of samples	33	28	28	28	28	25	25	25	25	25	25