



We wish you all
Merry Christmas
and a Happy
New Year 2011

The Team of ECN

ABPR
The Future of Hygienisation

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SPECIAL ORBIT
Soil and Organic Matter

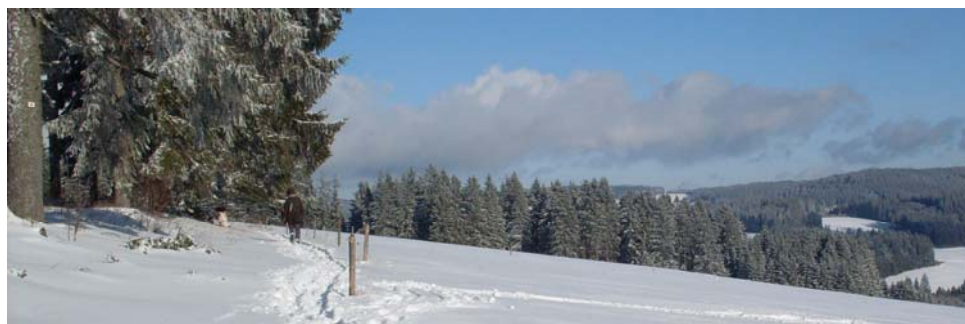
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EU Commission

Bio-waste Strategy of the European Commission

On the 21. September 2010 DG Environment of the European Commission published a new working document with the title „Sludge and Biowaste“. The document is based on changes of the bio-waste and sludge policy outlined in the Communication from the Commission on "Future steps in bio-waste management in the European Union" adopted on 18. May 2010. It aims to structure the further discussion with Member States and key stakeholders as well as to enable the Commission for a better preparation of the revision of the Directive on the use of sewage sludge in agriculture.

In this context the key question of the Commission is whether this extension of the sewage sludge directive onto bio-waste is justified or not? The aim of the Commission is to set minimum standards for the use of bio-wastes and sewage sludge on agricultural soils following the objective of the Soil Thematic Strategy to ensure the maximum benefit from the recovery of nutrients and parallel to limit the release of dangerous substances into the soil.

In its Communication on the future steps in bio-waste management the Commission rejected the idea of a stand-alone legislation for bio-waste. Alternatively better management of bio-waste may be addressed by the revision of existing legislation:

- expansion of the recycling targets for bio-wastes in the course of the revision of the Waste Framework Directive,

- definition of End-of-waste criteria for composts/digestates in the context of the Waste Framework Directive in 2011, and
- revision of the EC Sewage Sludge Directive including bio-wastes by setting minimum standards for bio-waste used on agricultural soils, which do not meet the End-of-waste criteria.

Commission proposes a three category system

The three categories of the Commission differentiate between a product class for compost/digestates, which is freely tradable (even over borders), a waste class for sludges and bio-wastes, suitable for the application in agriculture and a third class below the minimum quality limits, which can't be used in agriculture any more.

The Commission emphasizes that the use of high quality compost/digestate

Table1: Legislative regime for different qualities of sludge and bio-waste

	„Product“ Compost/Digestate (End of waste)	Minimum Quality for Sludge and Bio-waste	Below Minimum Quality Limits
Input material	Source segregated waste	All biodegradable waste (including mixed municipal waste and sewage sludge)*	All biodegradable waste*
Use	not restricted	Allowed to be used in agriculture, however not on soils subject to high risk of contamination	Not to be used in agriculture, possible use on non-agri soils, for land reclamation or for con-
Monitoring	Only in production phase	During production and use on soils, also periodic monitoring of soils	Not regulated on EU level (left for national regulation)
Regulated by:	Regulation on end of waste criteria for bio-waste	Revised sewage sludge directive	Left for national regulation

* It should be ensured, though, that sludge and bio-waste from mixed municipal waste are exempt as much as possible of non-organic material (e.g. metal, plastic, glass)

(e.g. source-separated bio-waste) would be subject to rigorous product and production control. Manufactured products are subject to the free market and unrestricted in their use which requires a safe and low risk application. In contrary to the product class all bio-wastes and sludges of the waste class used in agriculture would be subject to waste permits (if relevant), soil tests and monitoring, limits of contaminations in the materials as well as maximum limits for pollutants introduced into soil over a 3-year average. Biodegradable wastes which do not meet the minimum quality for the use in agriculture shall be regulated under national legislation.

The draft proposal of the Commission should be seen as a very first concept which shall be worked out in detail during the discussion with the Member States and stakeholders.

Work on End-of-waste criteria for compost has started

The work on the elaboration of a product standard for compost already began. Assigned, like already in the past, is the Institute for Prospective Technological Studies (IPTS) at the Joint Research Centre of the European Commission in Seville. So far the range of applicable biodegradable materials (digestates, sludges, bio-waste (source segregated, mixed municipal waste) for the product standard is open. Like in the already available 2008 studies on End-of-waste criteria for compost, in which the European Compost Network was involved, we expect that the requirements for the product standard will

include a list of suitable and clean input materials, requirements for the production process and product quality (nutrients, impurities, pollutants) and their declaration. The combination of the product standard with quality assurance as a monitoring tool is regarded as obligatory.

Sewage sludge and biowaste strategy of the Commission

The European Commission clearly expressed that a stand-alone regulation on biowaste is not feasible. Based on the outcome on the activated discussion on the new working document “Sludge & Biowaste” the Commission will decide until the end of 2010 whether minimum standards are included in the revision of the EC Sludge directive or not.

Statements of ECN

The statement of the European Compost Network ECN on the „Communication on future steps in bio-waste management in the European Union“ and on the lately published working document „Sludge & Biowaste“ can be downloaded from the ECN website www.compostnetwork.info.

First expert meeting for EoW

JRC/IPTS has schedules a first expert meeting on End-of-waste criteria with Member States and stakeholders for the 2nd of March 2011 in Seville.

As preparation for this event ECN organises an ECN working group meeting on “Biowaste Policy” for its members on 26 January 2011 in Mechelen (Belgium).



Figure 1: The operator Michael Kreimers (right) of the RECYBELL anaerobic digestion plant in Boden, Germany, explains during a ECN study tour his views of a high quality end product suitable for End-of-waste to the visitors (from the left) Unico van Kooten (DWMA), Florian Amlinger (ARGE) and Hans Saveyn, officer responsible at JRC/IPTS for the End-of-Waste study on Biodegradable waste.

Animal By-Product Regulation

The future of hygienisation: meeting with experts without concrete results

Florian Amlinger, Chair of the ECN WG1 "European Policy" had the chance to accompany the Austrian Representative of the Ministry of Health at a meeting between Member States (MS) delegates and experts of the Biological Hazards (BIOHAZ) Panel¹ which is part of the European Food Safety Authority (EFSA)² and signs responsible for the scientific assessment of sanitisation and transformation parameters established under the Animal By-Products Regulation.

The new ABPR Reg. (EC) No 1069/2009 shall apply from 4 March 2011. Now the Commission was challenged to adopt the implementation regulation with the annexes in time. This was done on 12 October 2010.

The chance was missed to discuss practical experience the rules for processing Cat. 2 and Cat. 3 materials in composting and biogas plants (now laid down in Annex VIII) with BIOHAZ panel experts during the consultation period. Nevertheless there is always the possibility to apply new and alternative processing and transformation methods for being evaluated by EFSA.

In brief, what is new:

- As compared to ABPR of 2002 not much has changed
- Pending common rules on EU level even now Member States may adopt national processing and transformation rules for catering waste if processed in composting or biogas plants without validation. This is also possible, if the following materials are processed together with catering waste: manure; digestive tract content separated from digestive tract (ie in most cases paunch waste); milk; milk base products and milk-derived products; colostrum and colostrum products; eggs; egg products; processed former foodstuff³
- With the exception of manure and the above mentioned materials where the competent authority may authorise other requirements than those specified in Annex VIII for all further Cat. III materials the standard (70 °C, 1 h, at 12 mm particle

size) or a validated alternative process must be applied. The latter must be approved by EFSA.

- Important new exemption: a pasteurization/hygienisation device shall not be mandatory in a biogas plant for processed former foodstuff or feeding stuff (see³) and if the digestate is composted in an approved composting plant!
- Still it is possible to operate open windrow composting systems if it is guaranteed that all material is exposed to the required temperature. This can be achieved by regular turning during the high temperature phase. This was confirmed by Prof. Böhm, leading scientist of the related BIOHAZ working groups. He confirmed that also in closed reactors there is no even distribution of temperature and humidity and therefore does not provide any advantage with respect to safeguarding hygienisation
- There is no change in the validation procedure for alternative time temperature regimes as well as for final product testing.
- Also the application rules for compost and digestate as organic fertilizer or soil improver still requires a 3 weeks waiting period between application and grazing or harvesting of forage crops. This must be indicated in the product label or accompanying documents upon delivery.

Key messages

And here some key messages from EFSA experts during the November meeting:

- Validation is expensive (ca. €15,000.-) and should therefore provide as much as possible information including processing and monitoring parameters following the HACCP principle.
- Final product testing is considered as not sufficient to guarantee an effective reduction of relevant pathogenic organisms. It is just an indicator for a successful process and eventually for no re-infection.

- 5^{log} reduction of indicator organisms is state of the art. The residual risk is then acceptable
- It is admitted that the standard transformation parameter (70 °C, 1 h at 12 mm) is derived from food processing. It is not validated in practical composting! However 70°C does not eliminate heat resistant viruses. Also 12 mm maximum particle size contradicts the biological needs of a proper aerobic composting process. Here parameters like the oxygen supply and C/N ratio are much more important than a maximum particle size!
- There are 4 tools to safeguard the processing and use of ABP: (i) validation; (ii) monitoring of process parameters; (iii) final process testing (iv) restriction, monitoring and supervision of the use of final products
- Validation and product testing:
 - * The testing of Parvovirus is only needed for materials where it is likely to occur (e.g. pig manure). It is very unlikely eg. in former foodstuff, poultry manure etc. and therefore not necessary to test.
 - * The Inconsistency between standards for manure and standards for compost should be harmonised in future amendments
 - * Co-digestion with wastewater in Waste Water Treatment Plants: also here a process evaluation should be carried out following the methods of the ABPR
 - * The validation of the effective reduction of indicator organisms is intended for specific process types using typical ABP. It was not foreseen as a procedure that is applied in each individual case. Once a process including the involved HACCP and monitoring measures has been successfully validated and as alternative method it can be used by individual composting and biogas plants when respecting all involved parameters including used feedstocks.

Missing information and next steps:

Manifold interventions to simplify the validation procedure remained unanswered. How to proceed with the approval of existing time-temperature and monitoring regimes which already have been scientifically assessed e.g. by The Netherlands or Belgium is still an open question. I was repeatedly confirmed by participants that a simple registrati-

on procedure for validated processes would be needed to be administered by DG SANCO.

Another point raised by a number of Member States was the acceptance of standardised representative sampling methods as used in waste management or for soil improvers. Here also no solution is in sight.

However, the standing committee of DG SANCO with Member States representatives continues its work developing and discussing missing issues and possible amendments to the implementation rules.

The only way to achieve further relaxations in the validation procedure for further Cat. 3 materials and to gain full acceptance of the well established and accepted time-temperature regimes below 70 °C and at larger particle size requirements specifically in composting is an official application with all necessary documents to EFSA and the BIOHAZ panel.

Next steps

Within WG 1/ABPR we intend to coordinate such an application based on the work already done e.g. in Germany, Belgium and The Netherlands.

Before March 2011 ECN will publish a compact brochure, guiding compost and biogas plants as well as involved consultants and authorities through the amended ABPR jungle.

¹ BIOHAZ: <http://www.efsa.europa.eu/en/panels/biohaz.htm>

Relevant publications of BIOHAZ:

Statement on technical assistance related to the EFSA opinion on transformation of Animal By-Products into biogas and compost (10 November 2009)

Opinion of the Scientific Panel on biological hazards (BIOHAZ) on the safety vis-à-vis biological risk of the mesophilic process of biogas and compost treatment of Animal By-Products (ABPs) (16 March 2007)

Opinion of the Scientific Panel on biological hazards (BIOHAZ) on vis-à-vis biological risks of biogas and compost treatment standards of animal by-products (ABP) (22 September 2005)

² EFSA: <http://www.efsa.europa.eu/>

³ (EC) No 852/2004, Art. 2(1)(m): 'processing' means any action that substantially alters the initial product, including heating, smoking, curing, maturing, drying, marinating, extraction, extrusion or a combination of those processes



Spain International Congress

Soil and Organic Matter: Between Waste Framework Directive and New Spanish Law

The International Conference on “Soil and Organic Matter” focused on the interrelationship between soil and organic matter from waste. More than 200 participants followed the two-day conference in Valladolid. The conference was organised by the Regional Ministry of Environment of Castilla and Leon, the Institute for Sustainability of Resources and the European Compost Network (ECN).

The conference addressed a multiplicity of aspects, such as prevention, separate collection, the use of compost and digestate into the soil and energy recovery from methane and hydrogen. The traditional subjects of composting and anaerobic digestion (processes, technologies, product quality and the role

of organic matter in the fight against desertification) are remained key issues. Finally, new considerations were arised, as energy from biomass and the role of soil in relation to climate change.

The aim of the conference was to show the Spanish way for achieving the objectives of the new European Waste Framework Directive in the field of organic waste. The presentations included various possibilities for the collection, process recovery and subsequent use of products from organic wastes.

All documents of the conference can be downloaded from the website of the Institute for Sustainability and Resources (ISR): <http://www.isrcer.org>

ECN INFO PAPER

Sustainable Compost Application in Agriculture

ECN has published a new INFO PAPER about the German research report „Sustainable Compost Application in Agriculture - Benefits and Risks“. The results are based on long-term uses of compost in agriculture and were worked out by the German Institute of Agricultural Technologies (LTZ).

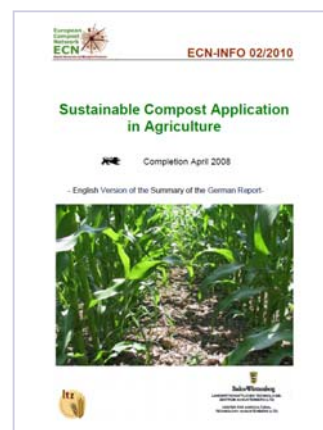
Decisive for the utilisation of composts in agriculture is to consider reliably the principles of sustainability. Therefore in 1995 the State of Baden-Württemberg, Germany established long term compost application trials. Now 12 respectively 9 years test results are available - a unique basis and source for research and results which allow the evaluation of the benefits and risks of compost use in agriculture.

Besides the questions on humus management effects, the relevance of which become more and more impor-

tant in agriculture, a special attention was turned on a thorough ecological final assessment of compost use which

besides heavy metals includes a number of organic pollutants as well. The results are presented, discussed and assessed in an extensive German report.

The summarised findings are now translated into English and available for download on the ECN web site www.compostnetwork.info.





SOER 2010

EEA Environment State and Outlook Report

The European Environment Agency (EEA) released its fourth Environment State and Outlook report - SOER 2010. The report includes 13 Europe-wide thematic assessments of key environmental themes which aim help policy maker and citizens better understand, care for and improve Europe's environment.

SOER 2010 concludes that a fully integrated approach to transforming Europe to a resource-efficient green economy can not only result in a healthy environment, but also boost prosperity and social cohesion.

However, A complete shift to a resource-efficient green economy requires that all environmental resources – biodiversity, land, carbon, rivers, the seas

and the air we breathe – are fully considered in production, consumption and global trade decisions. SOER 2010 confirms that well-designed environmental policies continue to improve Europe's environment without undermining Europe's growth potential.

SOER 2010 also highlights a greater understanding of the links between climate change, biodiversity, resource use and people's health – and how tools like spatial planning, ecological tax reform, pollution prevention, precaution and resource accounting can underpin a natural capital-based approach to their management.

All SOER assessments can be accessed online at www.eea.europa.eu/soer. (EEA 30/11/2010)

EU Commission

EU adopts stricter rules on industrial emissions

On 8 November 2010 the EU adopted the new legislation on industrial emissions (IPPC). The stricter legislation on industrial emissions was proposed by the European Commission in December 2007. The Directive on industrial emissions updates and merges seven pieces of existing legislation.

Application of Best Available Techniques strengthened

At the core of the new Directive is the strengthening of the application of Best Available Techniques (BAT), making BAT Conclusions the reference point in the permitting process. The directive tightens minimum emission limits in certain industrial sectors across the EU - particularly for large combustion plants - where progress to reduce pollution is insufficient. These requirements should ensure that operators of industrial installations apply BAT in a more uniform manner and that consequently a more level playing field for industry is achieved.

Improving the tools for checking and enforcing compliance

The new Directive includes a number of improved mechanisms for Member States to check and enforce compliance with the new legislation. Provisions related to emission monitoring and reporting and to environmental inspections have been strongly enhanced. The clearer implementation requirements for Member States will facilitate the Commission's task of ensuring the full application of the Directive.

Next steps

The Directive will enter into force 20 days after its publication in the Official Journal, which is expected before the end of 2010. Member States will then have 2 years to transpose the Directive into their legislation and to start implementing the new legislation.

For further details, visit:

<http://ec.europa.eu/environment/IP/10/1477>

Organised by European Compost Network & Cré in co-operation with the European Biogas Association and the Irish Bioenergy Association

AD Europe 2011

Intern. Anaerobic Digestion Conference & Trade Fair “Future of Anaerobic Digestion in Europe”

24 - 25 February 2011
Crowne Plaza Hotel, Santry, Dublin, Ireland

AD Europe 2011 will be the largest trade show held on AD in Europe. The purpose of the show is to bring together farmers, landowners, councils, waste management companies and others who want to build AD plants with those who can finance, design, develop, build and operate them. AD is seen as a major growth area for throughout Europe.

However, the future of AD is not just about engineering and cutting edge technology. The conference is being addressed by those who are formulating policy and will be an opportunity to debate the key issues such as subsidy level, regulation and feedstocks. The conference theme is the **‘Future of Anaerobic Digestion of Organic Waste in Europe – Situation, Constraints and Changes’**

The European Compost Network and Cré (Composting & AD Association of Ireland) will host on 24 & 25 February AD Europe 2011, which includes a comprehensive two-day conference, speed networking, conference dinner, will bring together leading industry professionals across all sectors of the anaerobic digestion and biogas industries to share best practice, expertise and solutions and to debate key issues. The conference topics are Status of AD in Europe, Optimisation of the Process, Digestate Quality and Use, Bio-methane and Biofuel, Case Studies and Success Stories and Economics/ Subsidies

Our exhibition area will give you the opportunity to meet and engage with exhibitors and visitors from around the world and across a wide range of sectors.

The programme can be downloaded from the web site of ECN: www.compostnetwork.info

23 February 2011

ECN Annual Meeting in Dublin

The ECN Annual Meeting 2011 is combined with the conference “AD Europe 2011” and will be held from 16:00 to 19:00 h on 23 February 2011 in the Crowne Plaza Hotel, Santry, Dublin.

At this Annual Meeting the new structure of ECN is presented. For the election of the ECN Board the ECN Members are asked to nominate candidates for the Board. The invitation including the agenda and relevant documents will be send out in January.

24 February 2011

ECN WG 4 Meeting “Anaerobic Digestion” in Dublin

The ECN working group meeting on “Anaerobic Digestion” will be held during the first day of the “AD conference” from 16:00 to 18:30 h on 24 February 2011 in Dublin.

The invitation and agenda will be send out to the ECN Members in time.

United Kingdom

New WRAP Report investigates the fate of the persistent herbicides clopyralid and aminopyralid in commercial composting systems

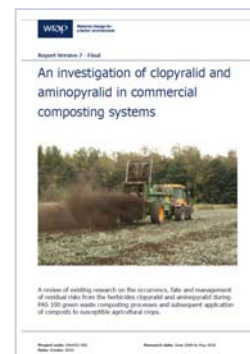
Clopyralid and aminopyralid are herbicides that control broadleaved weeds in turf, pastures and numerous commercial crops. When used as recommended, herbicide residues should not be present in composts.

However, there have been cases in the USA and New Zealand where herbicide residues have been found in compost feedstocks and products. Symptoms of herbicide damage have also been reported in the UK following use of contaminated manures, although no definitive incidences of such contamination have yet been linked to UK composts.

A review of research has been made on the occurrence, fate and management of residual risks from the herbicides clopyralid and aminopyralid dur-

ing green waste composting and subsequent application of composts to susceptible agricultural crops. It has been published recently by the UK Waste and Resources Action Programme (WRAP). Based on the information gathered, risks from this persistent herbicide contamination of composts are thought to be low. Recommendations are made to ensure that this remains the case. The report is available on the WRAP web site at:

<http://www.wrap.org.uk>



Ireland

Minister Ryan Relaunches Cré

Eamon Ryan, Minister for Communication, Energy and Natural Resources relaunched Cré as it embraced anaerobic digestion and food waste prevention within its remit on 11th November.

At a meeting in Leinster House following the relaunch, Minister Ryan stated that Renewable Energy Feed in Tariff (REFIT) for anaerobic digestion had been sent for state aid clearance a few days earlier and he hoped that the feedback from the European Commission would be received before Christmas.

Minister Ryan stated that anaerobic digestion has an important role in creating energy, local employment and help solving waste problems. He welcomed Cre providing a voice for the in-

dustry in Ireland and looked forward to working with the Association.

Cré also launched 'Cré Power' which will be a new service to members in 2011. Cré Power will be

led by Seamus Kilmartin who will be able to provide members with financial savings on electricity, mobile phones, credit cards and a range of other utilities. Further information: www.cre.ie



L to R, Minister Eamonn Ryan, David McDonnell (Chair of Cre AD Committee) & Martin Eves (Chair of Cre)



**11-13 January 2011, Nuremberg (DE)
20th Anniversary and Annual
Conference with trade fair and
study tour**

The large range of event attractions, including expert presentations and workshops, is precisely tailored to the needs of the biogas sector. The main subject during the three days of the conference organised by the Fachverband Biogas e.V. will be the amendment of the German Renewable Energies Law <http://www.biogas.org>

**10 February 2011, Birmingham (UK)
AfOR's Annual Conference and
Awards**

The event "Organics - the big issue" shows the importance of organics in the recycling agenda of UK.
<http://www.organics-recycling.org.uk>

**24-25 February 2011, Dublin (IE)
Future of Anaerobic Digestion of
Organic Waste and Residues in
Europe - Situation, Constraints,
Changes**

Conference jointly organised by the European Compost Network and the Composting & Anaerobic Digestion Association of Ireland CRE.
<http://www.compostnetwork.info>

**27-30 March 2011, Philadelphia (USA)
26th International Conference on
Solid Waste Technology and
Management**

Call for Papers due 31 October 2010
<http://www.widener.edu/solidwaste>

**4-7 April 2011, Adelaide (Australia)
Organic Matter Management &
Compost Use in Horticulture**

The International Symposium on Organic Matter Management & Compost Use in Horticulture will present, discuss and explore options of using compost and other organic soil amendments for managing and improving horticultural soils and production systems.
<http://compost-for-horticulture.com>

Only For ECN MEMBERS

**26 January 2011
ECN Working Group meeting on "End of
waste" and "Animal By-Product regula-
tion"**

The ECN scheduled the first working group meeting of WG1 „European Policy“ to the 26 January 2011 in Mechelen (Belgium). This meeting focuses on the work items „End-of waste criteria“ and „Animal By-Product Regulation“.

Main discussion points are:

ABPR Revision

- Current status of ABPR and ongoing activities of the Commission
- Coordination of validated processes to be applied to EFSA as "standard-alternative" transformation parameters
- Elaboration of an ECN brochure "How to apply the ABPR in composting & biogas plants – a guidance for practitioners, consultants and authorities"

End of Waste

- Current developments on End of Waste for biodegradable waste and the Revision of the Sludge Directive
- Concept of differentiated quality criteria
- Elaborating a concept for the EoW standard for Compost and pre-negotiation with key stakeholders and MS

Industrial Emission Directive

- Current development on the industrial emission directive concerning „Best Available Techniques“ for biological treatments

Life Cycle Thinking

- Current development with the revised LCA methodology

Further information can be requested at ECN.

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