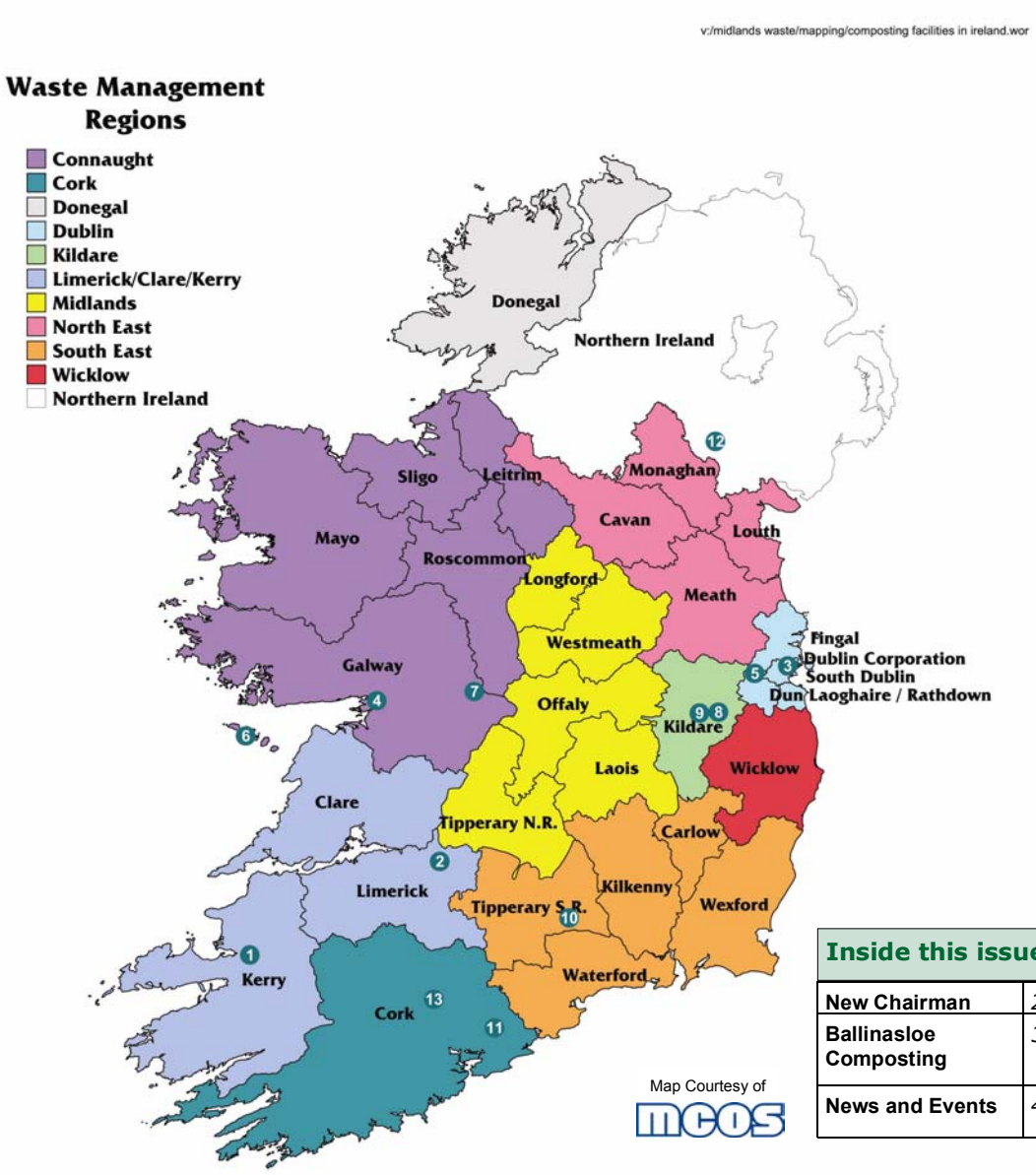
cré
COMPOSTING ASSOCIATION of IRELAND
Newsletter 3

Composting Facilities in Ireland

www.compostireland.ie



Inside this issue:

ID	FACILITY	CAPACITY_ta	FEEDSTOCK	TECHNOLOGY	CONTACT	ORGANISATION
1	Tralee Composting Site	3,000	Household Organics	Windrow	Environment Section	Kerry County Council
2	Limerick Composting Site	2,000	Household Organics	In-vessel and Windrow	Mr. Martin Sheehan Jnr.	Mr. Binman Ltd.
3	St. Anne's Park Composting Facility	10,000	Green Waste	Windrow	Waste Management Section	Dublin City Council
4	Sandy Road Waste Recovery Facility	5,000	Household Organics	Aerated Pile (VAR System)	Environment Section	Galway City Council
5	Lucan Green Waste Composting	5,000	Green Waste	Windrow	Environment Section	South Dublin City Council
6	Aran ISlands Recycling Scheme	500	Household Organics	In-vessel (Biosal Unit)	Cathy Ni Ghioll	Timpeallacht Na NOileainn
7	Ballinasloe Composting Site	1,000	Household Organics	In-vessel and Aerated Pile (Celtic Composting)	Environment Section	Galway County Council
8	Silliot Hill, Kildare	8,000	Commercial and Green Waste	VCU In-vessel	Sheena Lambert	Sita Recycling
9	Kildare Sludge Plant	0	Municipal Sludge	TEG In-vessel	Jones Environmental	Jones Environmental
10	CTO Clonmel	0	Commercial Organics	Windrow	Stephen Griffin	CTO Environmental Solutions Ltd.
11	CTO Middleton	0	Commercial Organics	Windrow	Stephen Griffin	CTO Environmental Solutions Ltd.
12	Keady Composting Facility	65,000	Organic and Green Waste	Enclosed Aerated	Caolan Woods	Natural World Products Recycling
13	McGill Facility	0	Commercial Sludges	Enclosed	Walter Ryan-Purcell	McGill Environmental Systems (Irl.) Ltd.

Your facilty is not here? Contact us and we will update the map which is posted on our website.

Letter to members from new chairman of Cré - Fiacra Quinn

First let me start by commending the work carried out by Paul van der Werf and Brendan Woods, who both stepped down from their role as Chair and Treasurer, respectively. On behalf of Cré, I would like to thank them for their efforts and look forward to their continued support.

Taking up the position of Treasurer is Conor McGovern of Celtic Waste, while Percy Foster is fulfilling the new role of Secretary. We are currently delivering a website, newsletters, position papers, and technical papers, and will aim to establish an information storehouse.

This year, there have been some valuable developments in the Association. Our website is undergoing changes to represent the rapid development taking place nationally. I urge everyone to review the work. These changes nationally are reflected on the technical output of the Association, from EPA funded studies to submissions to the Department of the Environment and Local Government. Cré should able to assist in establishment of standards for the industry.

Further to this, I believe there is a position for Cré on the proposed National Waste Management Board in drawing up of a National Strategy on Biodegradable Waste and help in policy implementation of through the proposed Recycling Forum. The Minister has been contacted - we will keep you up-dated.

In line with our Mission Statement, an information storehouse is being developed. This will initially take the form of a physical library of publications and papers. See later in the newsletter for further details.

At our last meeting, it was proposed that the Association be incorporated. This would confer legal status and a degree of protection and security. As before Cré would operate and on a 'not-for-profit basis'. Any member wishing to make representation or assist in this matter is encouraged to contact me. I also proposed a few ideas regarding activities to increase awareness of compost and its utilisation. This could include an informative rather than competitive awards scheme. Again I invite members to put forward suggestions as to how this may be best achieved.

Cré will soon help deliver a training course for local authorities, the private sector, and regulators in February 2003. This follows on from the first in a series of courses on composting given by Paul van der Werf (ERM) and Dr Munoo Prasad (BnM). In previous years, the aim was to teach scientific principles of composting and provide basic knowledge to enable one to run a home composting programme or manage a facility. This course will build on the knowledge gained previously. I would see this as an important step for Cré in promoting composting, infusing best practices and would encourage members and their colleagues to attend.

Finally, I would like to thank those who helped at the last seminar, exhibitors, speakers, our generous sponsors, and you, the members, for input, assistance, and support throughout. I would also like to take this opportunity to welcome new members and look forward to their contribution to developing the Association.

Fiacra Quinn,
Chair.

UK Composting Risk Assessment Published, 5 Jun 2002

In the UK the Department of Environment Food and rural Affairs (DEFRA) published the report of the Risk Assessment into risks associated with the use of composting and biogas treatment to dispose of catering waste including meat. This is important to Cré members, as the situation in the UK is comparable to that in Ireland. The overall conclusion is that it is acceptable to apply composted catering waste to land provided certain steps are followed. These include. A two-barrier composting system is used for the "meat" fraction, animals not allowed to graze on land where composted catering waste has been applied within 2 months, raw catering waste material is not kept on livestock farms.
Full details of the risk assessment are available on the DEFRA animal by-products webpage
www.defra.gov.uk/animalh/by-prods/default.htm

Workshop/conference on biowaste

The Environment DG of the European Commission organised a workshop/conference on biowaste on 8, 9 and 10 April 2002 in Brussels. The aim of this three-day event was to discuss a number of policy and technical aspects relative to collection of municipal biodegradable waste, production of compost and biogas, and use of compost and digestate on agricultural land. Over 200 experts attended presentations, participated into discussions and shared experiences.
Further details at; **http://europa.eu.int/comm/environment/waste/compost/conference_programme.htm**

The Ballinasloe In-Vessel Composting Facility

Dr Andrew Walsh PhD Celtic Composting Systems Ltd.

Introduction

Galway County Council in conjunction with Ballinasloe Town Council commissioned the building of an in-vessel composting facility at Pollboy landfill to process the domestic organic waste being produced within the administrative area of the town council (Fig. 1). An in-vessel system was chosen for the site given the superior environmental and process control features offered by enclosed systems over conventional open windrows. The facility was designed and installed by Celtic Composting Systems Ltd (CCS), an Irish/US company that specialises in closely controlled composting systems. The facility went into operation in March 2002.

Fig. 1. The Pollboy in-vessel compost facility.

The Composting Process

(1) Waste Delivery

Organic kitchen and garden wastes are collected from households and delivered to Pollboy every other week. The initial throughput of material represents the production from 1,500 homes, estimated at between 400-600 tonnes per year. Some green waste that is delivered directly to the landfill is also processed.

(2) Waste Blending and Loading

The waste is initially blended in a mixer to adjust for moisture, nutrients, porosity and microbial activity. The blended "pre-compost" is then transferred to special composting containers by conveyor.

(3) The Composting Containers

The containers are designed to optimise the composting process, while providing maximum environmental protection. On a 14-day cycle, each of the two containers at Pollboy can process up to 1.3 tonnes of pre-compost per day. They are designed to optimise the composting process through computer controlled aeration, while treating all emissions and excluding vermin.

(4) Process Control

A dedicated computer system is used to control the airflow through the compost in the containers. This regulated airflow is essential to allow the compost to heat effectively. The computer also continuously records compost temperature to document that each batch has been pasteurised.

Fig. 2. The two composting containers at Pollboy.

(5) Compost Maturing

At the end of the initial 14 day "high-rate" cycle in the containers, the compost is now safe to unload into the "curing" or "maturing" bunker without fear of attracting vermin. The curing bunker is an engineered composting system designed by CH2MHill, a leading US compost engineering firm. The system operates by drawing air under vacuum through the compost to further optimise the process (Fig. 3). Similar to the containers, all liquids and gases generated are captured and treated. The material is typically maintained in the curing area for eight weeks prior to screening.

Fig. 3. The curing system at Pollboy

(6) The Final Product

At the end of the 10-12 week composting process, the compost is screened. Laboratory results have illustrated that this final material is of high quality and is very suitable for use as a soil conditioner or surface mulch. The compost is consequently being used in the Ballinasloe area by the Town Council and residents.

To date, this composting initiative in conjunction with the dry recyclable collection programme in Ballinasloe has resulted in an estimated 48% diversion of domestic waste from landfill.

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The author acknowledges the kind permission of Mr Tom Kavanagh, Director of Environment & Conservation Services, Galway County Council, to publish this article.

Composting standards and certification.

The UK-based Waste and Resources Action Programme (WRAP) has been helping the UK Composting Association to strengthen and promote its Certification Scheme since January 2002. Currently eight composting companies – representing 250,000 tonnes of compost a year or one third of the UK's total manufacturing capacity – are seeking accreditation under the scheme. Details are available on the WRAP website **www.wrap.org.uk** or the UK Composting Association (UKCA) website **www.compost.org.uk**

WRAP recently published a comprehensive study comparing international composting standards around the world entitled "Comparison of Compost Standards Within the EU, North America and Australasia"; the study provides a detailed comparison of the standards and Quality Assurance Systems (QASs) in place in these countries for composting, anaerobic digestion and mechanical and biological treatment. The study, which examined the legislative situation in Ireland, is available on the WRAP website at **http://www.wrap.org.uk/reports.asp**

Animal By-Products Regulations

The European Parliament has adopted the regulation governing the disposal of animal by-products not intended for human consumption. The Regulation lays down rules on what must be done with animal materials that are excluded from the food chain. This includes rules on disposal options such as anaerobic digestion and composting.

A copy of the text can be found at the following web address **http://wwwdb.europarl.eu.int/oeil/oeil_viewdnl.procedureview?lang=2&procid=4709** (apologies!) This legislation is quite complicated – for a Cré summary refer to the last newsletter or read it on **www.compostireland.ie** The Commission has undertaken to prepare a proposal for a biowaste directive, including

Cre Presentation at the Chartered Institution of Waste Management

The CIWM invited Cre to give a presentation at their Annual Conference & Exhibition last June in Torbay, U.K. Percy Foster stepped in for Paul van der Werf who was originally planned to present the paper "Developing Composting in the Rep. of Ireland" at the Compost Workshop. The paper was well received by delegates who were interested to see how quickly in the last few years composting, both centralised and home composting, has developed. At the workshop there were other presentations from Jane Gilbert (The Composting Association), Phil Wallace (Enviros),Mike Tregent (Environment Agency) and Anne Riding (WRAP).

Compost & Bio Aerosol

Since composting is a microbial process, it can generate aerosolised biological particles known as bioaerosols. Composting is now accepted by the Irish Government as an integral part of waste management in Ireland. However in recent times increasing concern has been raised about bioaerosol emissions and the health risks associated with it for workers in compost plants and for the public in the vicinity of the plant. Cre (Dr. M. Prasad, P van der Werf, A Brink
man) carried out a literature study with the support of the EPA to determine the exact extent of the problem and measures to be taken to avoid or minimise health risks associated with bioaerosols form compost plants. Included in the studies will be details on sampling methodology and analytical methods to determine bioaerosol. Bioaerosol levels in the environment from other well established industries will also be presented. Watch for this publication.

SITA – VCU at Silliott Hill

SITA Recycling Ltd., in co-operation with Kildare County Council, have developed a centralised composting facility for industrial food and biowaste using vertical composting technology developed in New Zealand. The vertical composting technology chosen offers a high level of scientific analysis of the composting process, an increasingly important aspect of biowaste recycling and compost production. The formal opening of the facility is planned for early in the New Year - watch the Cre website for further details.

'Finished compost produced by Galway City Council from household biowaste'

Upcoming annual seminar

Cré would like to remind members that the 2003 Cré seminar will be held in April at a venue to be decided. Stay posted for details. The UK Composting Association Annual Conference 2002 will be held 2nd December in Nottingham. Further details available at **www.compost.org.uk**

New Print library available from Cré

Cré have accumulated a large number of documents relevant to the composting and organic waste management industry. These represent a valuable resource. Most of these documents are freely available on the Internet and will eventually be sourced through www.compostireland.ie. We have recently printed off a large number of these documents. These are available to post out to Cré members who have no access to the Internet. We ask that this facility be only used no Internet access is available to you. Contact Fiacra Quinn at (01) 4100618 for further details. The list is attached on a separate sheet.

Also available on the website is a list of Cré members.