cré
COMPOSTING ASSOCIATION of IRELAND
Newsletter 5— January 2004

Compost Licensing by the EPA

During 2003, the Environment Protection Agency (EPA) issued a number of Waste Licence and Proposed Decisions relating to composting. Proposed Decisions become Waste Licences after a review period. These documents are of interest to composters as they indicate the direction taken at the regulatory level. Both the EU Working Document on the Biological Treatment of Biowaste (2nd draft) and the Animal By-Products Regulation dictate part of the approach taken. However the conditions attached to compost production aspects in each case sometimes differ in relation to quality assessment.

To review some of these documents, see the EPA website at www.epa.ie/Waste/WasteSearch/. Some licences to view include 53-2, 117-1, 118-1, 124-1, 159-1 and 182-1.

Cré hopes to see increasing harmonisation between Waste Licences as they relate to composting aspects such as standards for compost quality.

National Biodegradable Waste Strategy Underway

The Department of Environment, Heritage and Local Government is in the process of preparing a National Strategy for Biodegradable Waste, which is due to be released in early 2004. The Strategy must respond to the EU Landfill Directive of 1999, which requires each Member State to prepare a policy for the gradual phasing out of biodegradable municipal waste from landfill.

The latest (2001) National Waste Database published by the EPA shows a growing volume of municipal waste being landfilled, despite improvements in recycling and recovery. Significant increases in biological treatment capacity are expected to form part of the strategy, with an emphasis on source-separation leading to high quality compost products. Further increases in recycling of paper and cardboard must also be achieved. Consultation is underway with the Department of Agriculture and Food regarding the impact of EU regulations on Animal By-Products will have on composting of catering waste. The Draft Strategy is being prepared with the assistance of consultants RPS-MCOS.

Compost Training Course

The 2nd in a series of courses on composting took place late last year. The course was intended to be broad enough to appeal to those involved with both home composting projects and centralised large scale composting. The goal was to teach basic scientific principles of composting and provide basic knowledge to enable attendees to run a home composting programme or manage a composting facility. Amongst the subjects delivered was the science of composting, technologies, managing and monitoring the process, compost analysis and utilisation, and relevant legislation. Also included was a site visit.

This course was well attended and received by over 20 professionals from the public and private sector and the feedback was very positive. There was considerable interest expressed in more advanced courses and on facility management.

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Many thanks to the kind sponsors of this issue of the Cré newsletter

Celtic Composting Systems Ltd.

Michael Higgins & Co Accountants

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Cré Calendar of Events for 2004

Date	Location	Subject
February 5: 10.30-1.00	Green Isle Hotel, Dublin	Membership meeting with a focus on source separation.
March:	Galway	Membership meeting in morning, with an afternoon tour of Galway facilities
May:	TBA	Cré Annual Seminar - all day event
July:	TBA	Annual General Meeting including election of the association's board
October:	Waterford	Membership meeting, with an afternoon tour of Waterford City facilities

The theme or focus of the membership meetings in March and October as well as the content of the Annual Seminar in May will reflect comments received by members returning their membership surveys. These were sent out to members via e-mail at the beginning of the year. Please take the time to let us know what you think and need. If you did not receive a survey, you are a member and would like to provide us with your input, please contact Lorraine Herity, Cré's Secretary, at info@ compostireland.ie . Members and non-members alike are welcome to all Cré events. Non-members are encouraged to join to support the work of our association.

European Compost Network AGM

The AGM of the European Compost Network (ECN) held in Barcelona on 14th December 2003 was attended by Lorraine Herity, Secretary of Cré. At the meeting it was confirmed that ECN will act under the umbrella of ORBIT association, which enables ECN to proceed with activities with the existing resources and legal basis of ORBIT. There are now 40 members within the ECN. Board members and country representatives were elected. Munoo Prasad, Bord Na Mona and Brian Donlon, EPA, were elected as the Irish Representatives.

The following were elected as board members of the ECN:
Managing Director – Josef Barth, Germany
Chairman – Morten Broegger, Solum Consulting, Denmark ,
Vice Chair – Enzo Favoino, Scoula Agraria del Parco di Monza, Italy
Vice Chair – Dr. Jane Gilbert, UK Composting Association

Progress reports on the seven ECN Working Groups were also made.

The photograph (right) shows Lorraine Herity with Josef Barth (ECN Managing Director) and Morten Broegger (Chairman of ECN).

"Future of Source Separation of Biowaste in Europe"

The ECN meeting was followed by a two-day workshop on "The Future of Source Separation of Organic Waste in Europe" . Presentations were made by local authorities, consultants, research experts and compost facility operators from all over Europe sharing their experiences in establishing separate collection schemes and composting of bio-waste.

It was announced that the final draft of the forthcoming Biowaste Directive is due in September of 2004 and that it would be merged with the Soil Thematic Strategy, and the proposed Sewage Sludge Directive.

The possibility of source separation being repealed in the forthcoming Biowaste Directive was also discussed. The Chairman of ECN stated that source separation is the cornerstone of the Biowaste Directive and that ECN would put pressure on the Commission to prevent this repeal from happening. Many stakeholders have issued position papers supporting source separation of Biowaste. The ECN asked Cré to issue a position paper on source separation to Catherine Day in the European Commission, Environment DG. Conall Boland from RPS-MCOS is currently preparing this position paper. A presentation on further issues facing source separation and case studies of established separate collection schemes presented at the ECN Workshop will be given at the next Cré meeting on February 5th.

Compost Quality Research Brought to Fruition

Research carried out by Lorraine Herity into 'Quality of Waste Derived Compost in Ireland' was successfully completed and submitted to Queens University, Belfast, as part of her Masters Thesis in Environmental Engineering.

Analysis of fifty-nine compost quality test results received from twelve composting facilities throughout Ireland, was carried out to determine the overall quality of Irish compost. The quality of the compost samples produced from bio-waste, green waste, commercial organics and sludge was then compared and classified according to statutory limits for compost quality parameters, stipulated by the Environment Protection Agency and the forthcoming EU Biowaste Directive. The main parameters analysed included the concentration of heavy metals and nutrients and the presence of foreign matter, salmonella and faecal coliforms.

Fifty percent of the biowaste compost samples were classified either as Class I or Class II compost according to the EU standard and in general contained lower amounts of heavy metals when compared to other EU countries. However, high levels of impurities and gravel and stones resulted in a significant amount of these samples being classified as stabilised biowaste or as non-conforming to the minimum requirements of the proposed Biowaste Directive. The presence of impurities and gravel and stones was not as significant in the green waste compost.

Significant correlations were also found between some heavy metals in the biowaste compost, which suggest that single laboratory tests of strongly correlated metals could be carried out in the future. Sanitation requirements were met for nearly all the samples analysed. The biowaste compost contained sufficient amounts of nutrients and had good fertilising capabilities, whereas the green waste compost contained fewer nutrients. Some of the compost samples were found to be immature, a fact which was attributed to a lack of space available at facilities to allow compost to fully mature.

The introduction of a national compost standard along with improved source segregation and improved physical and biological processing of feedstock is important to ensure the quality of the product and to assist in the development of viable markets and outlets for compost in the future. This report is available to download at the Cré website - www.compostireland.ie The author thanks Cré and its members for their input and cooperation throughout the course of this project.

Quality Standards

Cré has begun to investigate the cost of a project to establish and implement standards and a certification scheme. With members approval, an accredited company on behalf of Cré, should begin this process. Those wishing to become certified would pay a fee, as with any other standard.

In the UK, there are standards for compost processing and quality standards with a certification scheme. It is a voluntary scheme through which producers can demonstrate that their compost has been produced according to an approved procedure and is of a certain quality. Technical documents are already extant and may only need to be reviewed and/or slightly altered to be acceptable in Ireland.

To progress, Cré has contacted Certification Europe Ltd with a view to researching, establishing, and implementing the standard. The availability of funding will also be investigated. The model used and technical specifications of the standard will be largely based of the BSI, PAS (Publicly Available Standard) 100 although our own technical committee will suggest alterations as required.

By May 2004, Cré aims to ensure the research phase of the project would be completed and that the establishment of the standard and associated mark will have begun.

Animal By-Products Regulation

Cré circulated a briefing document, on the Animal By-Products Regulation issue, in December 2003. This document, prepared by Conor McGovern *greenstar,* Andrew Walsh, Celtic Composting Systems and Mo Mathies BIM, was circulated to the Department of Environment, Heritage and Local Government, Department of Communications, Marine and Natural Resources, Department of Agriculture and Food and to the Environment Protection Agency. This document is available to download at the Cré website www.compostireland.ie

Help Cré Update Contact Details

This newsletter is circulated to over 250 parties in printed format, is widely circulated by e-mail and is made available on the Internet at www.compostireland.ie. Please facilitate Cré by completing and returning the attached enclosure, confirming your postal and other contact details. Each hardcopy of this newsletter costs 2.50 to print and circulate, so we wish to ensure that all copies reach their intended targets. This forms part of ongoing efforts to improve service delivery to membership and others interested in composting.

CCS Builds Four Composting Facilities in County Waterford.

C. Benton & A. Walsh, Celtic Composting Systems Ltd.

In 2003, Celtic Composting Systems, Ltd. (CCS) was selected to provide both Waterford County Council and Waterford City Council with bio-waste composting infrastructure. Four facilities were subsequently built and they have been designed to provide both jurisdictions with full composting capacity for all domestic and commercial bio-wastes arising. The larger Waterford City site is a stand-alone composting facility while the three smaller "community" composting facilities are integrated into the County Council's civic amenity sites in Dungarvan, Tramore and Lismore. The purpose of this article is to detail some of the features of the County Council facilities, while the Waterford City facility will be the subject of a future article.

Dungarvan

Located at the new Waterford County Council civic amenity site on the old landfill in Ballinamuck, north of the town, the 1,000 tonne/year composting facility currently processes garden materials dropped off by residents and landscapers along with weekly kerbside collected food residuals from supermarkets, restaurants, hotels, florists and bakeries in the area. The first phase of the process involves blending the materials in an auger mixer to prepare them for composting. Initially, green materials are loaded into the mixer so that the blades on the augers can chew up brush and tree branches (less than 4" in diameter) into smaller pieces. Then wheelie bins full of food are hydraulically lifted and tipped into the mixer so the food and garden materials can be blended together. For smaller facilities, this one piece of equipment can be used effectively as both a shredder and a mixer.

Fig. 1. Loading an in-vessel digester at Dungarvan.

As catering waste is being processed at the site, CCS's containerised in-vessel system is being utilised to process the materials for the first 14 days of composting. The system is effective in excluding pests and vermin, controlling odour, ensuring pasteurisation and eliminating weed seeds. Using a temperature feedback mechanism, aeration is controlled by a computer which monitors temperatures on a continuous basis while producing a report detailing the temperature profile for each batch. After the in-vessel phase, the containers are lifted by a roll-off lorry and emptied onto an outdoor aerated concrete pad. Here aeration is continued under vacuum pressure which allows all process air to be forced through a biofilter to control odours. After two months of curing, the compost is screened and tested for maturity and quality prior to unrestricted use as a soil conditioner and mulch in the area.

Tramore

Located at the Tramore Civic Amenity site, this 1,000 tonne/year composting facility has been designed to process green garden materials dropped off by residents and landscapers. Materials are shredded using a portable auger mixer, water is added and the materials are placed onto a concrete pad with an in-floor aeration system. The pad is divided into six zones to allow the operator to control air flow to each area of the composting pad. Operating under vacuum pressure, all air is drawn down through the piles and forced through a biofilter to control odour. Pile temperatures are monitored by radio-transmitter probe continuously. Materials are turned twice during the 10 week process and, when finished, are screened to produce a high quality compost product.

Fig. 2. Green waste reception at Tramore

Lismore

Located at the Waterford County Council civic amenity site south of town, this 500 tonne/year re-locatable composting system processes garden materials dropped off by local residents and landscapers. As the accompanying photograph illustrates, the above grade aeration system uses perforated HDPE air lances to draw air down through the piles under vacuum pressure so that all process air can be captured and forced through the system's biofilter. Mass concrete blocks have been used to contain the piles and serve as push walls when the compost piles need turning. Valves at the back of the wall are used to control aeration to each

air lance which are adjusted according to temperature and oxygen readings.

Fig. 3. The CCS Aerated Static Pile System in Lismore.

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