



IENICA



IENICA is a workstream in the INFORRM-IENICA project

Newsletter number 12

May 2001

Welcome to the first newsletter of the new IENICA project

It is 18 months since the last newsletter and during this time we have secured funding from the European Commission for continuation of the project. The new IENICA project is considerably expanded with the addition of 10 new partners from EU accessing and associate countries, also the USA and Canada have signed up to participate at their own cost.



The first meeting of the INFORRM-IENICA project was held at the Central Science Laboratory in the UK on 23rd and 24th April. Full contact details for the 27 partners of the IENICA project will be available on the website soon.

The IENICA project will run alongside another EU-funded project – INFORRM, the Industry Network for Renewable Resources and Materials, an initiative of ERRMA (The European Renewable Resources and Materials Association). Both projects aim to facilitate progress in the European non-food crops sector by enhancing availability of technical, commercial and market information. While the INFORRM and IENICA projects will follow distinct and separate programmes of work, the overall goal remains the same and together the projects will achieve synergy. The merged project is called INFORRM-IENICA and will run for three years in total, although the INFORRM work programme will complete in two years.

The joint project is co-ordinated by Melvyn Askew,

who also co-ordinates the IENICA work programme. Dr Nigel Oliver of ACTIN in the UK is co-ordinator of the INFORRM programme. Detailed information about the INFORRM workstream is available from: info@inform.com or: www.inform.com

To ensure that the two projects follow their individual work packages appropriately, and at all times retain focus on what is useful to industry and how to meet industry needs, an Industry Steering Group will be appointed. This group of twelve members will meet twice a year with the leaders of the IENICA and INFORRM projects to review progress and ensure that progress is to the benefit the sector.

From Melvyn Askew, the IENICA work stream co-ordinator:

The first IENICA project highlighted many opportunities in industry for non-food products from agriculture; additionally many potential products from crops yet to be exploited were identified. The challenge to the sector now is to develop these opportunities, and crucial to this will be the end user and producer working together for rapid exploitation of products and markets.

Between the closure of the original IENICA project and start of the new project, the Central Science Laboratory in the UK has maintained the IENICA web site. Over 3,000 companies now exist as contacts on the web site. Similarly all of the market information and data identified in individual member state reports is available free of charge and can be downloaded from the web site. CSL has also extended the database to carry two new areas - IENICA Commerce and IENICA R&D.

IENICA commerce offers a facility for industry to advertise its wares, be it at the production or consumption end. One screen of space is available free of charge for anyone who wishes to advertise. Contact ienica@csl.gov.uk.

IENICA R&D – for institutes or organisations undertaking research in the non-food crops sector, one screen of space is offered free of charge to state their identity, their interests and work in this area and give a contact and a web site link. Contact ienica@csl.gov.uk.

The new IENICA project is one workstream in the INFORRM-IENICA project. Much of what was done in the first project is mirrored in the new project, but many more countries are involved. Identifying industry specifications for produce and developing a small agronomy booklet are just two of the new programmes. Of course the interactive web site remains and will continue to be of benefit to the industry.

Melvyn F Askew

The IENICA workstream:

- 2 international conferences will be held in association with Europoint. The Industrial Applications of Bioplastics will be held at CSL in York, UK on 3rd – 5th February 2002, and GreenTech 2002 in Amsterdam in April 2002 (provisional). The Bioplastics conference is featured in this issue.
- 2 regionally focussed seminars will be held, one for the northern and central European regions in Berlin and one for the southern European and Mediterranean region in Italy. The seminars will cover aspects of industrial crops pertinent to the regions including the most suited species and prospects for these crops in the region.
- The IENICA website and information available on plants and their products will be considerably updated in the new project.
- The Newsletter will continue to be published quarterly from now onward. The members of the project have interesting articles lined up for future issues, which we hope you will enjoy. The newsletters are also published electronically on the website. If you have any comments on the newsletter or would like to publish an article, please contact ienica@csl.gov.uk.
- An agronomy booklet for the ten major non-food crops grown in Europe will be published in late 2002. The IENICA project clearly covers a diverse range of countries and the publication will not attempt to

address in detail effects of phenotype on crop performance. The booklet will cover issues of a more generic nature in the crops' agronomy, and issues pertinent at the EU level, including legislative issues. Information on areas, production and market potential will also be included. We also hope to make national guidelines for good agricultural practice for these crops available on the IENICA website.

- 4 market data sheets will be published, addressing individually the fibres, oils, speciality chemicals and one other sector. These are intended to provide growers and processors with details on industry specifications for raw materials and will be developed closely with the Industry Steering Group and with national industry advisors.
- The new members to the project will be preparing a status report on industrial crops in accessing and associate states - the first time this has been done. This will be available in May 2002 together with a summary document.
- In its final year the project will assess changes in uptake of industrial crops across Europe since the first assessment was done by IENICA in 1998/99. A concise overview document will give an indication of the percentage change in the industrial crops sector and the impact of such change, or indeed to establish if there is no change. This will clearly be an important document for the European Commission.

The INFORRM workstream:

Is involved primarily with promotion and strategic development and will deliver:

- A directory of (108) key companies/organisations/initiatives active in the industrial crops sector. This will be made available electronically and will take the format of the existing CEFIC directory.
- 12 case studies of fully commercialised products from non-food crops, to include details on the challenges faced by the company in achieving commercial success.
- A new industrial crops portal featuring IENICA and INFORRM will reinforce good communications between the two workstreams.

Visit the IENICA database at: <http://www.csl.gov.uk/ienica>

“Industrial Applications of Bioplastics” Congress & Trade Show

**Organised by IENICA and Europoint BV in
York, United Kingdom, 3-5 February 2002**

Bioplastics are increasingly advancing in quality and becoming functionally advanced plastics. Their properties are comparable to several synthetic plastics but when disposed of in landfills or in composting units, they degrade into low molecular weight products which can be assimilated by the action of naturally occurring micro-organisms. Legislation will dictate that even trace toxic residues are not left behind in the degradation process of disposed of bioplastics, and that “cradle to grave” life cycle analysis concludes that the product does represent an environmental gain. Bioplastics are a group of materials with many inherent properties, which will assist mankind in many ways without adversely affecting the eco-balance.

Sustainable Plastics

Quality

Biodegradable industrial plastic materials which are comparable in quality to, or better than (depending on the application) synthetic plastics, have a place in the market. Biodegradable plastics should be considered for market sectors in which recycling is difficult, use is short-lived, biodegradability is a performance requirement or is desirable, or the characteristics are the most suitable for the intended application.

Environment

There is no single, simple solution to waste management but there is a fairly broad range of options comprising either the reduction of the amount of material entering the waste stream (recycling, long-use), and/or dealing with methods of disposal, which is where biodegradability becomes important. Synthetic plastics offer durability and resistance to all forms of degradation including biodegradation. In addition, they offer a large variety of cost effective performance characteristics. However, use of long-lasting plastics for short-lived applications add to the environmental plastic burden, often unjustifiably. Sustainable development means that design, production and consumption of commodity and speciality items should take into account the most suitable material for the application when viewed in terms of its interactions with the environment.

Legislation

Biodegradable plastics offer energy savings and sound environmental benefits, making the integration of these materials into the waste management policy in Europe worthwhile. Establishment of definitions comprising all possible categories of environmentally degradable plastics, together with suitable standards and testing protocols is required. The nature and the fate of the degradation products constitute a crucial point for the acceptance of plastics. The European test standards for measuring biodegradability under composting conditions are currently under development. The issue to be addressed is if current laboratory tests accurately reflect the biodegradability of a material in a real compost pile. The key issue is whether the biodegradation material is harmful to the environment. In Europe, CEN (European Committee for Standardisation) and DIN (Deutsche Institute für Normung e.V.) have proposed composting standards. The CEN standard supports the European Packaging Directive. Successful efforts are underway to harmonise the different methods and definitions for aerobic and anaerobic degradation.

Industrial Applications

Short-lived products: packaging, foams, hygiene products, fast-food packaging and throw-away cutlery and bags, multi-film or food wrapping films, disposable items such as diapers;

Where biodegradability is required or desired: gardening (plant pots), soil sheeting or bags for rubbish disposal;

Performance: Paper lamination, hot melt adhesives, textile fibres, medical devices, controlled release systems.

Challenges Ahead

In theory bioplastics could substitute for conventional synthetic plastics in many applications. In practice substitution is often feasible but neither wanted nor lucrative. Technical performance must be matched by economic viability. Economic viability depends on the investments needed for material and product development and production, but also on the added value of the bioplastic in the particular application. Only a clear value in terms of performance and environmental impact can justify the consumer choosing these materials, often at a higher price than conventional plastics. As far as the environmental added value of bioplastics is concerned, only adequate legislation will make it possible to fully benefit from them. In summary, acceptance of bioplastics depends

mostly on 1) price versus environmental worth, 2) legislation, 3) total biodegradability and 4) development of an infrastructure to collect, accept, and process biodegradable polymers as a generally available option for waste disposal.

A "Product" Conference

From 3 – 5 February 2002 the second edition of the Congress & Trade Show *The Industrial Applications of Bioplastics* will be held at the Central Science Laboratory in York, United Kingdom.

On Sunday February 3 2002 delegates will be welcomed to York and have the opportunity to pre-register. The **first Congress day**, February 4, will focus on bioplastics as sustainable raw materials and will deal with the feedstock, the quality achievements in the various groups of bioplastics and the European regulations regarding compostability and environment. The **second day**, February 5, will be entirely dedicated to the presentation of industrial applications of bioplastics with the emphasis on cost performance relations. At the **Trade Show**, on both days, product samples will be presented either in-use or on display, or as a video clip.

The target groups of the conference are 1) the bioplastics chain, from the feedstock producers, research, raw material producers, processors, end-users to authorities and consumer organisations, and 2) all (synthetic) plastic processor industry and end-users wishing to make acquaintance with the potential of bioplastic materials.

Bioplastics work! They are good for the environment, they have the required quality, they solve social problems, and they are price competitive. With this message IENICA & Europoint plan to close the congress on February 5 2002!

The fees for participating in the International Congress & Trade Show *The Industrial Applications of Bioplastics* are (excluding VAT):

Standard delegate	Euro 390,00 GBP 238,00
University delegate	Euro 332,00 GBP 202,00 (identification required)
Table top	Euro 750,00 GBP 458,00

Delegates intending to submit a paper for oral and/or poster presentation should send proposed poster titles and a short abstract (½ A4) by Friday September 28 2001. For more information about the congress programme and the submission of papers please contact:

Mrs. T. Lopes, PhD
Programme Manager
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E-mail: lopes@biotop.demon.nl

FORTHCOMING INDUSTRIAL CROPS EVENTS

13 - 14 June 2001

2nd International Rendezvous on Arable Crops (Les Culturales® 2001)

Boigneville, Essonne, France.

Tel: + 33 1 64 99 22 91

Fax: + 33 1 64 99 30 39

Email: lesculturales@itcf.fr

5 - 6 Sept 2001

3rd International Symposium "Werkstoffe aus Nachwachsenden Rohstoffen"

Erfurt, Germany

Contact: Dr.-Ing. Günter Matter

Tel: + 49 (0) 361/4 00-0

Fax + 49 (0) 361/4 00-11 11

E-mail: dr.matter@messe-erfurt.de

For comprehensive details of events see the IENICA web site: www.csl.gov.uk/ienica

The IENICA project is funded by Fifth Framework programme of the European Commission.



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