



Produced by the European Federation of Corrugated Board Manufacturers



**Food Safety & Hygiene:
corrugated vital link
in the supply chain**



**Food Safety
Management by
Retailers, results
of the CIES Survey
January 2006**



**AFCO Proacción
for Corrugated
convention in
Madrid**

Source: SCA Packaging

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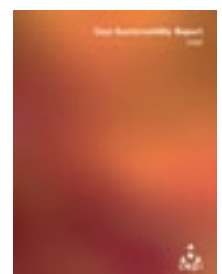
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Editorial

Very busy start to the year for FEFCO, as we visit Fruit Logistica in Berlin, co-host a workshop on Food safety and Packaging at CIES in Paris, and release a new version of the GMP (Good Manufacturing Practices) standard. Very busy indeed as we are also setting up a new series of market oriented workshops (with a first one on traceability in April), launching a new version of the FEFCO codes (including a CDROM), and improving the content and presentation of the FEFCO website.

This 6th issue of FEFCOconnect features articles on in-store food safety practices (based on a survey commissioned by CIES), Life Cycle Analysis, and all the latest FEFCO activities.

FEFCO focuses on future, competition & cooperation

Last but not least preparations are underway for the next FEFCO Congress that will take place in Dublin, Ireland, on 21-23 June 2006. Make sure you book these dates in your diaries now as we are finalizing a programme which will focus on the Future, Competition & Cooperation.

You can already find all the necessary information and register online at the following address www.fefco.org/congress.

We hope to see you in Dublin. In the mean time enjoy this new issue of FEFCOconnect. Please also make sure you send us your news!

FEFCO Services



New brochure promoting the CF1 CF2 standards



New flyer promoting corrugated packaging as best food safety choice for the supply chain



New flyer promoting the environmental performance of corrugated packaging



New flyer promoting Good Manufacturing Practices

All available on www.fefco.org

In Store Food Safety Management by Retailers

What About Packaging?



The 2006 edition of the CIES¹ Top of Mind survey, ranking the priority issues in the minds of the retailers, shows **Food Safety** in 4th place, stable from 2005. The 10 year overview of the responses from the whole food business sector placed food safety 'nowhere to be seen' in 1996, in 4th place in 2001, following the various food scares and receding slightly but still priority n° 6 in 2006.

Last month CIES¹, the Food Business Forum, also published the second part of a study designed to provide a benchmarking tool for retailers seeking to measure their own food safety management practices against global standards and best practices. Phase I of the study, released in January 2005, described in-store food safety practices and policies required of retailers by regulatory authorities in nine different countries. Phase II is based on a self-description of retail practices by retailers who participated in a 33 question survey.

The markers normally used for Food Safety Management systems are: Auditing Programs, Training Programs, Regulatory Compliance, Standards & Policies, Management Systems and Business Culture. For each of these six components six to ten questions were asked to the participants who had to describe in

Progress in Food Safety Performance by Marker in Europe

Marker	Rating	Four Generations			
		1	2	3	4
Training	3.6	█	█	█	
Auditing	3.4	█	█	█	
Regulatory Compliance	3.5	█	█	█	
Standards & Policies	3.3	█	█	█	
Management Systems	2.8	█	█		
Business Culture	2.9	█	█		

Source: CIES Food Safety initiative, Working Paper 06/01

quantitative terms the characteristics of food safety practices in their retail organisation, in their country.

Furthermore fully functioning food safety management systems take time, and this evolutionary process was categorized into four generations:

- Generation 1: Gaining control
- Generations 2: Achieving compliance
- Generation 3: Seeking continuous improvement
- Generation 4: Attaining Best Practices

Generations 1 and 2 are classified as reactive phases while generations 3 and 4 are proactive phases. Once the key indicators were investigated the overall situation was represented in a four-generation matrix representing company performance. The survey results were then presented by region: United States, Switzerland, and collective European Union Countries. See below the overall results for the EU.

It is clear that market trends and developments have created many opportunities for retailers, but also many potential hazards that need aggressive management. A lot more items are imported, especially fresh produce, sometimes from developing nations where sanitation standards are not yet controlled. Customers demand fresh foods with longer shelf life.

All these factors impact storage, handling, and display but also packaging and transportation. Given all these new challenges, effectively implemented food safety management systems will provide many of the elements necessary to demonstrate that due diligence was delivered. Many, yes, but not all.

It is certainly a good thing to benchmark and to use standards to monitor in-store food safety practices, but the issue of packaging and transportation has so far escaped the scrutiny of many retailers. The corrugated packaging industry took early steps to support these new practices by setting up its own packaging manufacturing standard (GMP). However no current standards cover packaging that is being reused. We can never be sure that these types of containers have been washed properly. Go to your supermarket and have a look for yourselves. If crates look that dirty to the naked eye, think of what unsafe elements could be there that you can't even see.

ASD

¹CIES - The Food Business Forum is the only independent global food business network. It serves the CEOs and senior management of 175 retailer and 175 supplier member companies, and their subsidiaries, in over 150 countries. CIES retailer members alone generate over \$2,000 billion, employ 4.5 million people and operate close to 600,000 stores representing a total sales area of 160 million square metres. See: www.ciesnet.org

Life Cycle Analysis: What Is It? And Why Do It?



Collecting data for the 2006 update of the LCA database

For the sixth time FEFCO is updating its LCA database. Data from over 100 corrugated plants and 50 paper mills is now being collected as

input. In this article we give you some background information to show how important LCA data is and what benefits it represents for our industry.

What does LCA stand for?

LCA stands for Life Cycle Analysis or Assessment. It is a method that is used to measure the impact an industry has on the environment. It is also known as *eco-balance*, *environmental impact analysis* or even *cradle to grave analysis*.

Life Cycle Assessment provides environmental information and can help to understand and reduce environmental impacts.

LCA provides useful and factual information about the effect our industry has on the environment. It is used to integrate environmental concerns into decision making and it is the basis for product and process improvements.

The results of an LCA can be used:

- For identification of product improvements
- To support decision making
- For the selection of performance indicators
- For marketing, etc.

FEFCO and LCA

In 1994 FEFCO teamed up with GO (Groupeement Ondulé, the European Association of makers of Corrugated Base papers) and ECO (European Container Board Organisation) to form the LCA reference group.

Since then technical experts from the industry have been working together with external LCA experts to set up a database bringing together all technical knowledge of both paper production and corrugated board production that meets the requirements for LCA studies.

The LCA reference group is responsible for the development, revision and analysis of the LCA Questionnaire and publishes the European Database for Corrugated Board Life Cycle Studies. This report contains descriptions of the production process, explains the methodology, provides data on consumption of raw materials and waste, additives and water, and gives details about the emissions to air and water.

Furthermore the LCA reference group is taking a leading role in providing the EU Commission with industry views on the LCA approach.

Strict rules on the Data Gathering and methodology.

The data gathered via the LCA Questionnaires is handled in a confidential way. This is why FEFCO is using an independent consultant to collect and review the data. The consolidated data of the Industry is then used to update and finalize the LCA database.

FEFCO's involvement in the UNEP/SETAC workgroups did result in LCA has becoming a tool for the systematic evaluation of the environmental aspects of a product or service

system throughout all the stages of its life cycle.

The International organisation for Standardisation (ISO) has standardised this framework within the series ISO 14040.

Methodology

A system, or life cycle, begins with the extraction of the raw materials (cradle) and energy generation. Materials and energy are used in manufacturing (gate), transportation, and eventually recycling, reuse or disposal (grave).

Gate to Gate

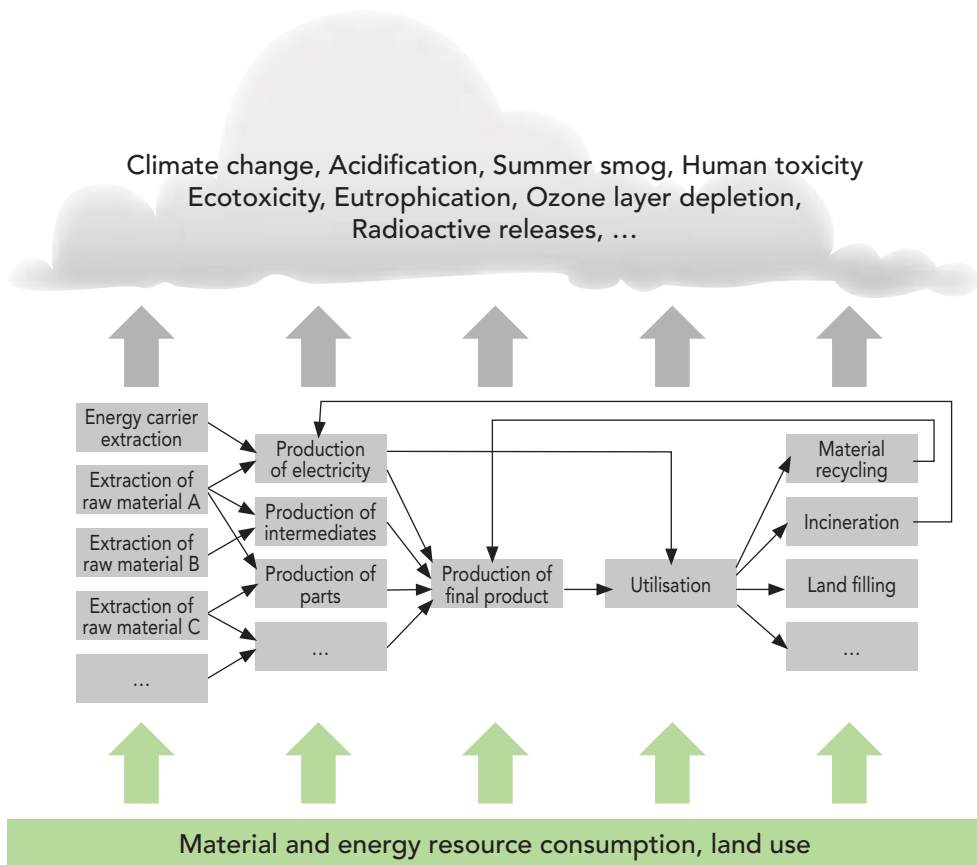
The corrugated board database gives so-called gate-to-gate information. This means that it handles the production sites as a *black box* and reports the inputs to and outputs from the production: neither the details of the different processes in the production site nor the emissions etc. originating from energy production outside the plant or the mill, transport and waste treatment are included in the datasets.

Closed loop concept

When performing environmental studies (such as LCA) for products made from wood fibres, the whole life cycle of the fibres must be evaluated from the fibre production until the fibre is lost as waste, normally after having been recycled 6 or 7 times.

In this closed loop approach Europe should be seen as one region and benchmarking between countries is a misplaced and wrong approach.

¹The report is available in a hardcopy version and in a downloadable version on the FEFCO website.



Platform on Life Cycle Assessment”, The Commission demands that sectors each develop their own LCA in order to support life cycle thinking in the development of goods and services, and to serve as basis for a broad range of policies.

The main priorities of this platform include:

- Consistent assessment using life cycle assessment of impacts and trade-offs associated with recycling, re-use, energy recovery, and ultimate disposal of resources in the context of the Waste Framework Directive (75/442/EEC) and as required by the recent Strategic Environmental Assessment Directive (2001/42/EC)
- Development of consistent tools and policy instruments for sustainable resource management outlined in the Integrated Product Policy (COM (2003) 302)
- Compilation and assessment of mining wastes in the context of the Mining Waste Directive (COM(2003) 319 final) and assessing threats from already contaminated sites under the proposed Soil Thematic Strategy (COM/2002/179)
- Contribution to the development of thematic strategies for the prevention and recycling of waste (COM(2003) 301), for the sustainable use of resources (COM(2003) 572), and for Environment and Health (COM(2003) 338).

The closed loop approach proves once more how important it is that associations have linked up (GO, ECO and FEFCO).

These Associations have agreed that the Database may only be used for environmental studies (such as Life Cycle Inventory Analysis, Life Cycle Impact Assessment as separate steps or as a whole Life Cycle Assessment) and therefore must not be used for other purposes, such as comparing papers and boxes produced from virgin fibre with papers and boxes produced from recovered fibers.

Correct input is crucial.

The outcome of an LCA is of course **as accurate as the data** used for analysis.

That is why our industry maintains an up-to-date scientific data base. Also, for an LCA to be reliable, clear parameters have to be defined at the start of each case study and comparisons can only be made within reason (no apples mixed with oranges!).

Thanks to LCA, the corrugated packaging industry can prove that it has a responsible and

pro-active attitude towards the environment and, as such, helps to demonstrate the environmental benefits of corrugated board as a Packaging System.

FEFCO won acclaim in the scientific world

In the past decade the database has become well known and referred to in many studies. FEFCO has sponsored the scientific development of LCA by taking part in workgroups of SETAC (Society of Environmental Toxicology and Chemistry) and other LCA networks. As a result the database is up to the latest standards and has an excellent reputation. It has been used in many studies (e.g. by the Spanish research institute ITENE) and it is referred to in numerous scientific reports and articles. The information is also used in general LCA databases (Ecoinvent) and LCA software (FEFCO LCA software for corrugated board, Chalmers, KCL, GABI.....)

Gate-to-gate information for environmental purposes only

New dimension of LCA in EU environment

Whereas in 1994 the LCA was started as a **voluntary** initiative, today the European Commission has launched the “European

Support from the industry and individual plants is vital

A important and growing number of companies and National Associations agreed to support the data collection for the sixth time. Your support is vital for the continuity of the LCA database which proves, in a scientific way, exactly what impact the Corrugated Industry has on the environment.

The previous LCA’s have shown that our industry has successfully reduced emissions and energy consumption per ton of product. It has also shown that metals (from printing inks) have been eradicated. But we are not yet done: improvements remain possible and the LCA helps to keep us on the right track with a pro-active attitude towards the environment.

Because after all “noblesse oblige”; Corrugated, it makes the most sense !

FEFCO activities



On the 1st of December 2005, **Hanneke de Leeuw** took over from Carmen Fernández Aparicio as FEFCO's EU affairs manager. Before she joined FEFCO, she was responsible for running the Brussels' representation of European private port operators (stevedoring & cargo handling companies based in EU seaports). Hanneke de Leeuw graduated from the Erasmus University in Rotterdam (Netherlands) in EU law. We would like to warmly welcome to the network.

Activity report GMP



The new booklet with the GMP code has now been published. It contains a number of editorial updates to the code and you can order it online at www.fefco.org/gmp

CIES

International Food safety Conference: the event took place in Paris on 2-3 February where FEFCO co-hosted a Packaging and Food Safety workshop, focusing on standardization. Co-hosts BRC defended a horizontal approach: one standard for different materials, hence different sectors, hence different specificities. FEFCO promoted GMP, a transparent standards answering all of the same hygiene and safety requirements while adapting to the demands and characteristics of a particular industry. While very aware and updated on food standards it appeared that the audience was not yet fully informed of developments in packaging standards and their scope and procedures.

29th FEFCO congress in Dublin

IPT

Both **Nathalie Schnéegans**, FEFCO Marketing Manager, and **Ludwig Anckaert**, Technical Director, attended and gave presentations at the International Paper, Print and Packaging Technologies conference in Istanbul, Turkey, on 16th November 2005.

Fruit Logistica



The international produce event FRUIT LOGISTICA 2006 attracted over 35,000 experts from the fresh produce trade from 112 countries to Berlin from 2 to 4 February. **Kasia Scoggins** and **Wim Hoebert** visited the show to promote not only the CF1 and CF2 standards, but also the Safety, Hygiene and Environmental performance of Corrugated with the help of a new series of FEFCO brochures, all available on the website.

FEFCO sympathizer members meeting

Ludwig Anckaert met with sympathizer members (suppliers to the corrugated industry) on 25 November 2005 to discuss further collaboration within FEFCO.

FEFCO Congress

Book your dates and register now to attend the 29th FEFCO Congress in Dublin, Ireland, on 21-23 June 2006. The venue for the event is the Burlington hotel and events will include racing and dinner at the Leopardstown Race course, a Cocktail at the Guinness Storehouse sponsored by the Irish Association, and Gala Dinner at O'Reilly Hall, University College Dublin. The programme will focus on Competition and

Cooperation, and the event will also be an opportunity to present the most recent achievements of the federation. You will find all the necessary information here: www.fefco.org/congress.



The RPC task force goes shopping

Friday 13th January the alarm clocks of the members of the RPC task force went off at 4.00 am in order to enable them to visit the Brussels European Centre for Fruit and Vegetables and the adjacent wholesale market. The wholesale market opens at 5.00 and closes at 7.30 so being there in the early hours is a must!

During the visit the group saw how transportation packaging behaves in daily practice and heard what the traders thought the various choices, such as wood, plastic and corrugated. It was immediately clear that corrugated is the product of choice when it comes to fruits with wood in 2nd place. High end products are presented in beautifully printed boxes thus adding to the image and lustre of the products. For several member of the task force the visit was a meeting with boxes produced in their own plants.

The meeting with various traders gave us a lot of ideas on how the industry could improve the performance of boxes and meet the requirements of the supply chain.

National Association Update



Spain

PROACCIÓN, a one day convention to kick-off the year and stimulate the drive of marketing and sales forces of the Spanish corrugated business was organized by AFCO in Madrid on 26 January 06. The conference, attended by almost 200 participants all from Spanish companies, was run by José Cabrera (here on the photograph) and Patricia Vallejo-Nagera, assisted by Ogilvy (PR and advertising agency), involved with AFCO in the promotion of corrugated.

The conference, opened by Victor Garcia, President of AFCO, was packed not only with interesting presentations on such topics as the use of corrugated recyclable pallets in the transport of corrugated trays; it also included an on-stage interview with a Carrefour Spain representative who gave a good outlook of what the retail business is expecting from our industry.

A very interesting presentation on the recent LCA Study commissioned by the Spanish Ministry of Environment was made by Mercedes Hortal from the ITENE Institute. The Study, a combined effort of ITENE and the University of Valencia, was peer reviewed by the University of Barcelona (all serious academic studies on LCA are expected to go through such a procedure to safeguard both quality and objectivity). Please see p8 of this FEFCOConnect for more information. However, the results of the recent FEFCO marketing study presented by Ignacio Carro, Secretary General of AFCO, clearly revealed that other packaging materials have grown strongly since 2000, largely at the expense of corrugated, and further growth was likely to come.

The AFCO Communications and Marketing

Plan for 2006, that aims to grow the market share of corrugated in Spain, was presented by Patricia Vallejo-Nagera. Wim Hoebert, Secretary General of FEFCO, spoke about the activities from a European perspective.

After lunch an unusual musical experiment took place. All participants were divided into groups and asked to play different instruments. Together, they formed an orchestra. As with all orchestras good harmonious results can only be realised when all members play the same tune in the same way. After some practicing and much laughter it finally worked out. It proved the importance of tuning to each other and playing corrugated together.

And finally, the successful day was wrapped up by Jesus Boveda of IP who reiterated that corrugated as transportation material not only offers the best value for money but also is superior when it comes to environmental and health and safety aspects. Our industry holds all aces in their hands!

For more information please contact Patricia Vallejo-Nágera at AFCO, pvallejo@afco.es www.afco.es



Netherlands

Dutch Corrugated Industry Creates Noise Reduction Factor and is awarded during the European week for Safety and Health at Work, in Bilbao, November 2005.

The European Agency for Safety and Health at Work awarded the Dutch Verbond Papier en Karton in which the corrugated industry is participating, for the creation of a Noise Reduction Factor (GRF) as «good practice». The GRF calculates the most cost-effective noise



reduction measure, and was developed by the corrugated industry. Problem: People working in the paper, cardboard and corrugated cardboard producing and processing industry are exposed to high – sometimes very high – levels of noise, which are usually the result of acoustically highly complex situations. There are quite a number of technical and organizational ways of reducing noise. For many companies, the problem is to know which measure will be the most effective in terms of reducing noise and controlling costs. Smaller companies in particular are not at all sure which measure will achieve the most cost-effective noise reduction.

The GRF is a formula that applies objective criteria to test the effectiveness and efficiency of a reduction measure, in order to determine whether a measure should be implemented. It weighs the cost of the measure against the reduction in noise level and the feasibility and applicability of the measure. The number of employees involved is also factored into the calculation.

This type of approach can easily be used in other sectors and is certainly applicable to small and medium sized companies too. The tool gives a company the chance to put a measure in place that is in keeping with its operations, without losing sight of the health of its employees.

Please email info@golfkarton.org for additional information. www.golfkarton.org

Strategic Alliances

ACCCSA (The Corrugators Association of Caribbean, Central and South America), have important news: the next XXVI ACCCSA Convention and Trade Show will take place in Lima, Perú, October 15 to 19, 2006. For more information, please visit the web page: www.acccsa.org

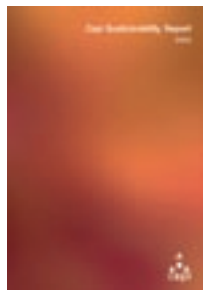
AICC (Association of Independent Corrugated Converters)

AICC Spring Meeting will take place on April 5-8, 2006 at the Bellagio Hotel in Las Vegas. Information available here: www.aiccbox.org/meeting

CITPA (International Confederation of Paper and Board Converters in Europe)

CITPA's board meeting took place in Vienna, on 23-24 January 2006.

CEPI



The European Paper Industry has just launched its 2nd Sustainability Report. Read the new report and find out why forests in Europe are increasing every year; how the paper industry is leading in generating green energy: what we

have done to make paper the most recycled product in Europe; and what we plan to do next. www.cepi.org

Scientific News

ITENE Study

A new and independent LCA Study from Spain, commissioned by the Spanish Ministry of Environment, was published recently by Valencia Polytechnical University and ITENE*, and peer reviewed by Barcelona Au-

tonomous University. According to the study corrugated cardboard helps to reduce the impact on climate change. The environmental and economical study compares single use corrugated board boxes with foldable plastic crates in the long-distance transportation of fruit and vegetables. It was peer reviewed by Barcelona Autonomous University. The conclusions are that corrugated board boxes present less negative environmental impact and are more economical than the foldable plastic crates used in long distance fruit and vegetable transportation. Moreover, corrugated board boxes also help to reduce the impact on climate change. This is because trees act as consumers of CO₂, therefore reducing the amount of gas in the atmosphere. In financial terms, corrugated board boxes incur lower costs than foldable plastic crates over their entire life cycle, if equal time spans are compared.



These are the main findings of the study entitled «Environmental and economic comparison of corrugated board boxes and foldable plastic crates used in the exportation of fruit and vegetable products», which was presented in the Second International Conference on «Life Cycle Management», held in Barcelona from September 5th to 7th. Copies of the **Executive Summary in English** can be ordered by contacting ITENE, Domi Collado: + 34 963 90 54 00. dcollado@itene.com
www.itene.com - www.dpi.upv.es/ID&EA

Calendar of Events

FEFCO events

▶ **29th FEFCO Congress**
21-23 June 2006
Dublin, Ireland
www.fefco.org/congress

▶ **14th Technical Seminar**
25-27 April 2007
Nice, France
www.fefco.org

Industry events

▶ **EMPACK Brabanthallen, Den Bosch**
19 & 20 April 2006
The Netherlands
frederik.van.aken@easyfairs.com
www.easyfairs.com

▶ **Packaging 2006**
April 18 - 20, 2006
China International Exhibition Center
Beijing, China
packagingexpo@reedhuayin.com.cn
www.packagingexpo.com.cn

▶ **Packaging Summit Conference 2006**
May 16 - 18, 2006
Donald E Stephens Convention Centre
Chicago, Ill., United States
chime@tarsus.co.uk
www.tarsusgroup.com

▶ **Packaging Services Summit Europe 2006**
June 12 - 13, 2006
Amsterdam, Netherlands
chime@tarsus.co.uk
www.packservsummit.com

▶ **PackUSA**
Oct. 4 - 7, 2006
McCormick Place
Chicago, Ill., United States
jack@gonpta.com
www.gonpta.com

▶ **SIAL Salon International de l'Alimentation**
22-26 October 2006
Paris Nord Villepinte Exhibition Center
www.sial.fr

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every month, and over
20000 pages viewed**