

President's valedictory message

Bill Day

The joint AgEng2006 / CIGR World Congress is happening at a very important time in the development of the Society. I want to use this article to highlight to all members the activities in the Society and more broadly in Europe, and encourage you all to work together to sustain and develop the agricultural and biosystems engineering discipline.

The conference will be the biggest gathering of AgEng colleagues in Europe for a long time with over 700 people attending, and offers exciting opportunities to debate the future and build and strengthen networks. Enjoy it!

Interface with industry

Though the Society's activities over the first 14 years of its existence have revolved largely around its conferences, the importance of the industry to the success of our profession has always been fully recognised. Our relationship with industry has been a priority topic in discussions amongst the Executive and Council, and I am pleased that concrete steps are now being taken to build new contacts and activities at the interface.

Dr Ludger Frerichs, the current President of VDI-MEG (the German national society) and the Head of Advanced Engineering in Claas, was co-opted on to the Executive last summer, and has spearheaded steps to enhance the interaction with industry. A strategy meeting in March 2006 highlighted a range of issues that can be taken forward, and these ideas have been communicated to member National Societies. Key elements are mentioned below.

Award of Merit

To recognise the importance of the industry interface, the Executive, with support from Council, has this year initiated an **Award of Merit** which will be presented at the AgEng conferences, with the first award being presented in Bonn. This award is the highest honour that the Society bestows. It will be made to a leading individual for their major contribution to the success of engineering for agriculture and the rural sector in Europe. It is expected that the winner will, in general, be a leading light in the industry, have strong associations with industry and/or will have made a contribution to engineering innovation that has been widely recognised by governmental or other organisations.

Joint conference with VDI alongside AGRITECHNICA exhibition in 2007

Plans for this conference are advancing well. Mark the dates 9–10 November 2007 in your diaries so you can present or hear about engineering advances in key areas that relate to the industry interests represented at the exhibition. It will be another big gathering with over 500 people expected.

Agricultural Engineering and Technology (AET) and the EU Framework 7 programme

In recent years, it has proved difficult to get agricultural engineering topics incorporated into the EU Framework

research programmes. With industry taking the lead, strenuous efforts have been made over the last few years to establish better relations with Brussels and a niche for agricultural engineering in the upcoming Framework 7 Programme. An AET Working Group has been established within the European Technology Platform of the manufacturing industries, MANUFUTURE, and active steps are being taken to ensure that key agricultural engineering issues are included in the Framework 7 Programme when it appears. VDI and VDMA (the German manufacturers' association) are to be congratulated on taking the lead with these ventures. EurAgEng has actively supported the joint efforts of many in industry, academia and research across Europe.



USAEE and the core agricultural/biosystems engineering curricula

It is important to everyone in the Society that the engineering skills that are deployed so successfully in agriculture are widely recognised as being at a consistent and high level. At the core of this is the engineering qualification within the degree courses offered by Universities. The EU Network USAEE (University Studies of Agricultural Engineering in Europe) has made major progress in defining core curricula that could be recognised by the supreme body for engineering qualification accreditation in Europe, FEANI. The Society is working closely with the USAEE to ensure that the benefits of all their hard work in defining the necessary core curricula are available to members throughout Europe. You can hear more during the Bonn conference.

Last word

I have been honoured to be your President for the last two years and to work alongside members of the Society in developing activities and opportunities that can sustain and strengthen its future. I now leave the Presidency in the capable hands of Aad Jongebreur of the Netherlands and look forward to the Bonn conference and to a bright future for the Society and AgEng in Europe.

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EurAgEng Innovation & Development Award

Aad Jongebreur

The EurAgEng Innovation & Development Award has become a regular feature of AgEng conference since AgEng 2000 in Warwick UK (when it was known as the Industry Innovation Award). Engineers in agricultural engineering companies can participate for the Award which is a recognition of innovation and development underpinned by science, technology and practice.

To be considered for the Award, a paper must be presented at the congress. However, the assessment will not be concerned with the quality of the presentation but will be based solely on the innovation described in the paper.

For AgEng2006 in Bonn, six abstracts were submitted, from which the following three were selected.

- **Shelton, D**
Developments in Sportsturf Drainage Machinery and Techniques
Shelton Sportsturf Drainage Solutions, UK

- **Ortega, AC et al**
Modification in the Building Method of Greenhouses to reduce the Labour Risks and Assembly Costs
A cooperation between Novedades Agrícolas SA, Avda.Valencia s/n, Almeria, Spain and the University of Almeria, Dept of Agricultural Engineering.
- **Starcevic, N**
Robot Development for Drying of Biomass
A cooperation between Thermosystem and the University of Hohenheim, Germany.

The papers will be evaluated by a committee consisting of Prof Ettore Gasparetto from the University of Milan, Prof Brian Witney, the Editor of Biosystems Engineering, and Aad Jongebreur, the vice president of EurAgEng.

The winner will be announced on Tuesday 5 September at the Awards Ceremony at 17.00. All are welcome to attend.

Snowman Eranet



The **SNOWMAN ERANET** - Sustainable maNagement of sOil and groundWater under the pressure of soil pollution and soil contaMinAtioN - expects in August 2006 to announce a research call, with an anticipated total budget of €700,000. It will be open to transnational research consortia involving partners from at least two of the SNOWMAN partner countries (see www.snowman-era.net/downloads/SNOWMAN_pre_announcement.pdf). Project duration will be approximately 12 months.

(Editor's note: If there was a competition for the most contrived acronym, SNOWMAN would be a strong contender!)

Members-only pages on www.eurageng.net

The *Members' Login* on the EurAgEng website gives access to the members' area containing four options:

- view the members' directory
- update your own entry in the directory
- join a discussion forum
- change your password

Logging in

To log in, enter the first four letters of your surname and your password. Initially your password is the same as your membership number, which is the 4 or 5 digit number on your address label. If you would like a reminder of your membership number, contact Mike Hurst on <web@eurageng.net>. Once you have logged in, you can change your password to any combination of up to ten letters and numbers.

Finding members

To search for a particular member, enter the person's surname (or part of it), or the country (or part of it), or the

field of interest. The more you enter, the narrower the search will be. A list of members who fit the search criteria will then be displayed. Click on the surname of the required member to give fuller details. The search facility can also be used to find all the members in a particular field of interest or in a particular country.

Updating your own membership details

Enter any details which should be changed in the boxes. When you press the Submit button, a message containing the new information will be sent to the secretariat.

Changing your password

Enter a new password up to 10 characters long. The new password will take effect immediately.

Joining a discussion forum

There is a general forum for members' discussion. If you would like to create a discussion forum for a new subject, please contact Mike Hurst on <web@eurageng.net>

University Studies of Agricultural Engineering in Europe: a Thematic Network (USAEE TN)

Prof Demetres Briassoulis, USAEE-TN Coordinator



Over the past century, our global society has made great strides in industry and technology: food and fibre productivity per unit of land has more than doubled and now directly involves only two percent of the population. Although progress has been made in coping with an expanding world population, this progress has not come without consequences: shrinking biological diversity, mountains of rural and municipal wastes, air and water pollution, and accelerated consumption

of non-renewable resources. In the twenty first century, these global problems will demand complex, sustainable solutions that are economically viable, environmentally responsible, and socially acceptable. No longer will we be able to address such problems with traditional approaches. They will demand approaches that consider multiple alternatives and myriad impacts. Professional services of specialists with a high quality multidisciplinary education in the fields of Engineering and Biological Sciences, such as Agricultural/Biosystems Engineers are needed to develop solutions in a highly challenging international environment.

History

During the last four years, a Socrates-Erasmus Thematic Network, funded by the Directorate General for Education and Culture, entitled **University Studies of Agricultural Engineering in Europe (USAEE TN)** was initiated with the fundamental goal of improving and harmonising the Engineering content of Agricultural/Biosystems Engineering curricula in European universities. The USAEE Thematic Network, composed of 31 partner Universities from 27 European countries, has been working towards the restructuring of the University Studies of Agricultural/Biosystems Engineering in Europe through the development of a basic core curriculum in Agricultural/Biosystems Engineering (see www.eurageng.net/usaee-tn.htm). For the first time, a critical mass of human resources and European Institutions/Universities offering such programmes of studies has been mobilized in a systematic way, carrying out a coordinated intensive work in an effort to establish basic core curricula to be used as benchmark and recognised/accredited at a European level.

- To date, USAEE TN has developed a Guidance report as a benchmark core curriculum that establishes a set of minimum requirements against which any curriculum can be tested and evaluated with regard to meeting the criteria for its admission as a particular program of Agricultural/Biosystems Engineering studies. Currently in most of the departments of Agricultural Engineering in Europe, agronomy and agricultural sciences prevail in the programmes of studies and "engineering" is a very weak,

mostly application oriented component. On the other hand, the Biosystems Engineering curriculum is an Engineering curriculum and the biological and agricultural sciences components are only supporting this curriculum in terms of some basic science-based knowledge. This report was submitted to the Fédération Européenne d'Associations Nationales d'Ingénieurs (FEANI) in September 2004, and a revised version was submitted in June 2006, in order for the European Monitoring Board of FEANI to decide whether it meets the minimum criteria so as to be recognized as an Engineering curriculum. In parallel, the European Society of Agricultural Engineers (EurAgEng) has decided to formulate, in cooperation with USAEE TN, an exciting new initiative in which it will formally recognize those university level curricula that adhere to the Guidance report contents.

- On 1 March 2006, the USAEE TN submitted to the European Commission a new proposal concerning a follow-up Thematic Network, entitled **Education and Research in Biosystems Engineering in Europe (ERBEE TN)**. Its main objective is to initiate and contribute to the structural development of the discipline of Biosystems Engineering in Europe by promoting the critical transitions from traditional Agricultural Engineering and the enhancement of the quality and linkage of Education and Research in Biosystems Engineering in Europe.

Dissemination of results

The academic year 2005-2006 was a dissemination year for the Thematic Network. The results of this major effort were widely disseminated and promoted, and succeeded in:

- a) Promoting and supporting the implementation of the major deliverables, namely Engineering and Agricultural science core curricula and pertaining ECTS system as well as recognition of Agricultural/Biosystems Engineering Studies in Europe through regional workshops and case studies.
- b) Disseminating the TN project results to a wider group, including the policy makers and the non-academic sector, but also to professional societies and other related disciplines.
- c) Establishing new activities in this field aimed at the support of the sustainability of the Thematic Network (ie various synergies with other related thematic networks and projects, submission of follow-up proposals, etc).

It is the common long-term goal of the USAEE TN partners to contribute towards the structural development of the emerging discipline of Biosystems Engineering and the enhancement of quality and linkage of Education and Research in this area, in Europe.

Hear more about USAEE at AgEng2006 at presentations on Tuesday 5 September at 08.30 and Wednesday 6 September at 15.30.

Agricultural Engineering and the Industry

Strategic opportunities for strengthening links

At a strategic workshop in the UK in March 2006, the EurAgEng Executive debated with industry representatives key issues associated with enhancing the relationship between the society and industry. This meeting highlighted many positive opportunities and benefits for both the society and industry.

The EurAgEng Executive intends to take further steps to improve relationships, particularly by implementing key ideas generated at the meeting, and ensuring that the issues raised are developed further. A number of the ideas relate directly to the activities of and interrelationships between the national member societies. We are therefore keen to share these ideas with you, and identify ways of working with you to achieve benefits for all.

The steps that EurAgEng will be seeking to take are:

- Introducing a biennial award to a key individual in European Agricultural Engineering for their contribution to the success of the European industry;
- Enhancing the understanding and image of EurAgEng and its role, in association with national member societies, in delivering the needs of all stakeholders, including the European industry;
- Ensure that industry interests are represented in EurAgEng, preferably by an industry member of the Executive;
- Provide direct input and support for EU initiatives that involve engineering and the land-based industries;
- Address more closely the needs of industry across Europe in the conferences that EurAgEng organises and promotes.

To deliver these advances, EurAgEng is already:

- Preparing proposals that would lead to an award at AgEng2006/CIGR World Congress this September;
- Developing simple mission and vision statements that, with the approval of Council, can be used in publicity from September;
- Planning to encourage nomination of an industry representative to the Executive of EurAgEng;
- Supporting the development of an initiative in Agricultural Engineering Technology under the 7th EU Framework Programme (article in <http://www.eurageng.net/files/nl.pdf>), and the Collaborative Working Group on IT and Robotics in Agriculture under SCAR (the Standing Committee on Agricultural Research);
- Preparing for a joint AgEng/VDI conference in 2007 adjacent to the Agritechnica show and on themes of importance to the European industry.

Among the topics identified at the workshop that have direct relevance to national member societies were:

- Encourage senior industrialists to take key roles in societies;
- Organise master classes and roadshows on topical technology issues at industry locations;
- Work with national societies in neighbouring countries to put on events relevant to industry in that region;
- Share best practice among national societies.

EurAgEng will be debating further how to ensure that its activities support and encourage industrial involvement in the field of agricultural engineering. We would welcome further proposals as to how EurAgEng can be most effective in this area, and also welcome requests for EurAgEng support for initiatives between national societies.

Vacant positions for doctoral students at Katholieke Universiteit Leuven, Department of Biosystems

The Department of Biosystems at KU Leuven has a number of vacant positions for doctoral students in the areas of:

- Multivariate signal processing as a basis for identification and control of processing equipment. The signals are derived from in-line measurements of forces and deformations as well as from process images. The candidates are expected to have an engineering degree with emphasis on system identification and control or mechatronics;
- Multiscale phenomena in biological processes: It involves the geometrical models as well as the mechanics and transport phenomena (of gasses and water) from the

subcellular level to the tissue level and fruit or plant level. The candidates are expected to be familiar with the observation and modeling of biological processes or with multiscale computational methods.

For further information contact or send your C.V. to :

Prof dr ir Josse De Baerdemaeker, or
Prof dr ir Herman Ramon
Katholieke Universiteit Leuven
Department. of Biosystems

Josse.debaerdemaeker@biw.kuleuven.be
or Herman.ramon@biw.kuleuven.be

The EurAgEng Award of Merit

This new award is the highest honour that the Society can bestow. It will be made to a leading individual for his or her major contribution to the success of engineering for agriculture and the rural sector in Europe. It is expected that the winner will be prominent in the industry, have strong associations with industry and/or will have made a contribution to engineering innovation that has been widely recognised by governmental or other organisations.

The award will be presented at the two-yearly EurAgEng conferences. In addition, the Society will consider seeking nominations and making an award in intermediate years if an appropriate EurAgEng conference is being held. If no suitable nomination is received then the Award of Merit will not be made.

Nominations can be made of anyone who is associated with agricultural or rural engineering using the nomination form available on the EurAgEng website. The nominee's contribution will be judged in terms of the impact of the engineering products, services or innovation with which he or she has had a strong association and played a leading role.

The Awards Committee is assessing the nominations for the 2006 conference as this newsletter goes to press, and the

winner will be announced at the Awards Ceremony on Tuesday 5 September at the AgEng2006/CIGR World Congress in Bonn. The winner will receive a trophy (see picture) and a certificate. The Society will publicise the Award winner widely and include an article in the newsletter to encourage the next generation of engineers to aspire to similar success.

The EurAgEng Award of Merit

This bronze sculpture is a miniature of the 3m high wooden sculpture that used to stand on the first floor balcony in the Mansion at Wrest Park, until recently the home of Silsoe Research Institute. The Trustees of the Institute made a generous donation to EurAgEng to allow these miniatures to be made for the Award.



The UNACOMA Vision Award

The UNACOMA Vision Award organised by EurAgEng has become a regular feature of AgEng conferences.

It takes the form of a competition for young people (aged 35 or under) giving us their views on the future of agricultural and biological systems engineering. Young people were invited to send a brief description of their vision and from the submissions, two have been chosen to give full presentations at the **UNACOMA Vision Event** at the AgEng2006 conference in September.

The finalists are:

- **Daniel Delahunty, Terence Delaney, Gerard Kennedy, Nicholas Lacey, Ciara McNestry, Timothy O'Connell, Domhnall O'Hanlon, Joseph Spollen** of University College Dublin, Ireland with a presentation on ***Integrating Engineering and Biology - The Final Frontier***.

- **Alfredo Sánchez, José Luís Guzmán** of the University of Almería, Spain with a presentation on ***The future of protected agriculture in arid regions: autonomous mobile robots for quality and safety***.

The winner will receive a generous cash prize from UNACOMA, the Italian Farm Machinery Manufacturers' Association.

At AgEng2004 this event was won by a team of students from Spain who gave an enthusiastic and memorable presentation on *Agricultural Transformation Clustered Greenfactories: A Future of Agriculture*.

This year the event will take place during the Closing Plenary session in Bonn on **Wednesday 6 September at 13.00**. We hope that everyone will come along and support the young people.

Do you need staff?

If you look at the EurAgEng web site <www.eurageng.net> you will see a section **Jobs**. We have had several advertisements on the site, generating income for the Society. Next time you are recruiting staff, please consider placing an advertisement with us on the web. It does not cost much and it reaches a very wide and appropriate audience. Also, it can be arranged very quickly. Contact Mike Hurst at <web@eurageng.net> if you are interested.

1st International Conference on Monitoring, Prevention and Mitigation of Dense and Debris Flows

Daniele De Wrachien, EurAgEng Past President



Debris and hyper-concentrated flows are amongst the most frequent and destructive of all water-related processes. They affect mainly mountain areas in a wide range of morpho-climatic environments and in recent years have attracted more and more attention from the scientific and professional communities and concern from the public awareness, due to the increasing frequency with which they occur and the death and

destruction they can cause. Higher population pressures a natural resources in hazard-prone areas and development of activities that have the potential to increase the magnitude of hazard call for improvements in the criteria used to identify debris flow risk areas and to design prevention and mitigation measures. There is need to take into account risks emanating from these events into the development process, in general, and land and water resources management in particular. This concept leads to a new integrated risk management approach which comprises the systematic process, administrative decisions, organisation, operational skills and abilities to implement policies, strategies and coping capacities of the society and communities to lessen the impact of natural hazards and related environmental disasters.

On these themes an International Conference took place in Rhodes, Greece, on 7-9 June 2006. The Event was organized by the Wessex Institute of Technology, UK, in cooperation with the Alma Mater Studiorum - University of Bologna, Italy and the Technological Education Institute of Kavala, Greece and was sponsored by CIGR and EurAgEng.

The objective of the meeting was to bring together engineers, scientists and managers from laboratories, industries, governments and academia to interchange knowledge and expertise in the field of dense and hyper-concentrated flows. The Conference was attended by participants from 17 countries. It consisted of an opening session, five topic sessions: Debris-flow modelling, Debris-flow phenomenology, Debris-flow mobilisation, Debris-flow disaster mitigation, Case studies and two Special Sessions:

- Debris and hyper-concentrated flows (organized by D. De Wrachien);
- Debris-flow and landslide phenomena after extreme events (organized by D. Emmanouloudis).

At the opening session the Convenor, Prof C Brebbia highlighted the scope, the goals and the aims of the conference. Prof D De Wrachien stressed the role of the agricultural engineers in the design of prevention and mitigation measures suitable to lessen the impact of natural hazards and extreme hydro-geological events, while Prof D Emmanouloudis brought the greetings and best wishes for success of the Technological Educational Institute of Kavala.

The event provided a multi-lateral forum for cooperation, information exchange and dialogue between the scientific and professional communities and underlined that the ideal sequence that should be pursued in the approach to the difficult problem of the management and hazard mitigation of dense and debris flows could be outlined as follows:

- firstly, a systematic collection of field data should be carried out in order to provide a large base of reliable data that could allow a better knowledge of the existing risk trends and a deeper understanding of the mechanics of the phenomena, along with their general behaviour and effects;
- secondly, effective mathematical models, which strongly depend on data and measurements collected and performed in the field for their calibration and design, should be constantly developed, updated when needed, tested and applied;
- hazard mapping techniques and identification of possible scenarios, which need reliable models to be effective and sound, should then be set up;
- on the basis of the knowledge achieved in the previous steps, the best mitigation solutions should be identified, designed and built up;
- finally a program of systematic observations on the sites, where risk has been mitigated, should be planned and carried out to detect any shortcoming and test the efficiency of the investigations.

The Proceedings of the Conference have been published by WIT Press, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK For more information see: www.witpress.com www.wessex.ac.uk/conferences/2006/debris06/

More to come

Planning for AgEng conferences starts well ahead of the event, and we now have decided on the locations of the three which will follow AgEng2006.

AgEng2007 will be a special conference and the first in the AgEng series to be held in an odd-numbered year. It will take place in Hanover, Germany in November 2007 and will be a combination of an AgEng

conference and the VDI-MEG Landtechnik conference, linked to the Agritechnica industry exhibition.

AgEng2008 will be held in Athens, Greece in late September 2008 when the weather will not be too hot. Since the Olympic Games were held in Athens in 2004, the facilities should be good.

AgEng2010 will take place in Clermont-Ferrand in central France and will be organised by CEMAGREF. The conference will focus on environmental technologies in agrosystems.

It might seem a long time ahead, but in 2007 we will be seeking bids to hold **AgEng2012**.

Sponsored Events

1-2 September 2006

3rd ATOE Conference (Automation Technology for Off-Road Equipment)

Bonn, Germany

Web: www.atoe2006.org

3-7 September 2006

AgEng2006 / XVI CIGR World Congress / 64th VDI-MEG International Conference - 'Agricultural Engineering for a Better World'

Bonn, Germany

Web: www.2006cigr.org

5-7 September 2006

First International Conference on Sustainable Irrigation Management, Technologies and Policies

Bologna, Italy

Web: www.wessex.ac.uk/conferences/

12 September 2006

International Workshop on Water Saving Practices in Rice Paddy Cultivation

Kuala Lumpur, Malaysia

Web: www.icid.org

14-15 September 2006

International Conference on Development of Agricultural Technologies and Technical Means in Ecological and Energetic Aspects

Venue: Raudondvaris, Lithuania

Email: institutas@mei.lt

22-23 November 2006

2nd International and 19th Croatian Conference of Technologists for Post-harvest Technology "Zrnko '06"

Venue: Tuheljske Toplice, Croatia

Email: zrnko@agr.hr

19-23 February 2007

35th International Symposium -

"Actual Tasks on Agricultural Engineering"

Venue: Opatija, Croatia

Web: www.agr.hr/aed/index.htm

3 May 2007

LANDWARDS 2007 - the IAgRE Annual Conference

Achieving Traceability across the Food Chain

Venue: Peterborough, UK

Web: www.iagre.org/landwards2007

2-6 September 2007

22nd European Regional Conference of ICID - Water Resources Management & Irrigation & Drainage Systems Development in the European Environment

Venue: Pavia, Italy

Web: www.icid.org

4-6 September 2007

IV Congreso Nacional y I Congreso Iberico de Agroingenieria 2007

Venue: Albacete, Spain

Web: <http://crea.uclm.es/agroingenieria2007>

8-10 October 2007

ECOSPREAD International Seminar on Environmental Technologies applied to Spreading of Mineral and Organic Matters

Organiser: CEMAGREF

Venue: Vichy and Montoldre, France

Web: www.cemagref.fr

Other Events

28 August-3 September 2006

ISTRO 17th Triennial Conference Soil Management for Sustainability

Venue: Kiel, Germany

Web: www.istro.org & www.soils.uni-kiel.de

19-20 October 2006

Annual Scientific Conference -

"Agriculture between Tradition and Intensivisation"

Venue: Iasi, Romania

Web: www.univagro-iasi.ro/simpozion

7-9 November 2006

Sustainability of the AgriFood Chain

Venue: The Hague, The Netherlands

Web: www.iffost-conference.elsevier.com

13-16 February 2007

42nd Croatian & 2nd International Symposium on Agriculture

Venue: Opatija, Croatia

Email: mpospisil@agr.hr

5-6 March 2007

15th Conference in Agricultural Labour Science

Venue: Vienna, Austria

Web: www.nas.boku.ac.at/akal-seminar.html

19-21 March 2007

1st International Conference on Ammonia in Agriculture

Venue: Ede, The Netherlands

Web: www.firstammoniaconference.wur.nl

2-5 May 2007

4th Asian Regional Conference & 10th International Seminar on Participatory Irrigation Management

Venue: Tehran, Iran

Web: www.irncid.org & www.pim2007.org

3-6 June 2007

6th European Conference on Precision Agriculture & 3rd European Conference on Precision Livestock Farming

Venue: Skiathos, Greece

Web: www.6ecpa.gr

17-20 June 2007

ASABE Annual International Meeting -

Celebrating 100 Years of Service to the Profession

Venue: Minneapolis, Minnesota, USA

Web: www.asabe.org

Getting bogged down in work?



Then take a few days off and visit us at **AgEng2006**
www.2006cigr.org

Photo courtesy of profi international
Find out more (and see more disaster pictures) at www.profi.co.uk

The Open Meeting

On Tuesday 5 September at midday, the relatively informal **EurAgEng Open Meeting** will be held. Everyone is invited to come along.

There will be presentations to members of EurAgEng who have given outstanding service to the Society. The outgoing President, Bill Day will briefly review the last two years of EurAgEng. He will then hand over to Aad Jongbreur who will take over as President for the next two years.

The Open Meeting will be a contrast to the more serious technical gatherings at the conference and the speakers have promised to be brief. It will enable EurAgEng to go forward for another two years to AgEng2008 in Athens. Do come along.

Letter to Editor

Dear Secretary General

I am driven to protest at the enormous waste of coverage in the last EurAgEng newsletter where almost two whole pages or 25% of the publication have been occupied by an American high school student's complete drivle masquerading as scientific research. Can I ask what relevance this has to European Agricultural Engineering? The references that are cited in this article give no apparent scientific research, merely an opinion that hydrostatic transmissions lose power over their lifetime, without any measurement or justification – where is the science in this?

In the 1970s, I worked in warranty failure investigation of hydraulic components in the Product Engineering Center of International Harvester Co (GB) in Doncaster where IH Hydrostatic tractors were manufactured for the European market. The transmission units for these tractors were assembled under semi-clean-room conditions because of the extremely tight tolerances and close fits of their components. It was found that the standard of maintenance and particularly of oil quality and cleanliness on most farms at the time was not sufficient to maintain these tolerances and so leakage between the hydraulic pistons of the swashplate pumps and motors

increased rapidly over time. This was particularly true in the case of high draft operations such as cultivation. (I notice that the "scientific paper" concentrates on hay mowing which is a relatively low draft operation). Therefore the efficiency of the unit, whilst high when new, quite quickly deteriorated to below that of a gear transmission. Hydro units of this type were found to be very difficult and expensive to repair under farm conditions and so most successful hydrostatic drives use proprietary components rather than the dedicated units used by IH.

I am quite sceptical of the unsupported statements that hydro transmissions are more fuel efficient than gear drives since there seems to be no data presented to either support or disprove the claim. Having designed several hydrostatic transmissions, each of which had to be fitted with large oil heat exchangers to dissipate waste energy, I very much doubt that this statement is true.

David B. Williams
Project Manager (Iraq)
CA/JICS Project, Japanese Emergency Grant Assistance to Iraq

Biosystems Engineering

EurAgEng is proud to have **Biosystems Engineering** as its official scientific journal. Members of EurAgEng are eligible to subscribe to the journal for their own personal use at the much reduced rate of GBP199 per year. If you wish to take up this offer, please contact Dave Tinker at <secgen@eurageng.net>



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