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This publication contains the collective views of an international group of experts and does not necessarily represent the decisions or the stated policy of the Food and Agriculture Organization of the United Nations.
INTRODUCTION

Dear Readers,

I would like to bring your attention to the new important initiative of the Commodities and Trade Division of the Food and Agriculture Organization of the United Nations in Rome, Italy. As I mentioned in the EUROFLAX No 23, Mr Brian Moir, the Secretary of the Intergovernmental Group on Hard Fibres and the Intergovernmental Group on Jute, Kenaf and Allied Fibres, informed that in 2005, the FAO Conference called for 2009 to be declared the International Year of Natural Fibres (IYNF). This would raise the profile of natural fibres by emphasising their ecological attributes, and thus contribute to an increase in demand for these fibres and promote consumption. At the same time, it would promote partnership among the disparate groups in various countries associated with the various natural fibres industries. A previous similar project was organized by FAO in 2004 - the International Year of Rice. The IYNF will be a great challenge for the research and development of natural fibrous raw materials as well as for our network, which has been supporting the idea for a long time.

I appeal to all of you, the network members, to be part of the preparations, to present proposals on how to conduct this event in the most fruitful way and simultaneously, on how to promote the cultivation, production and processing of natural fibrous raw materials throughout the entire world.

During FAO’s 6th Intersessional Consultation on Fibres, held on 2 December 2005 in London, the Institute of Natural Fibres as Coordination Centre of the FAO/ESCORENA European Cooperative Research Network on Flax and other Bast Plants, made several proposals concerning IYNF (see the information on page 8). Our ideas met with the approval of the governmental representatives from the following regions: Latin America, Africa, as well as Canada and the USA.

One of my ideas is to edit and publish the book “Flax and Hemp - the past and the future”. In addition we plan to co-organize a conference on natural fibres in India (see a call on page 10) and a conference devoted to industrial fibrous raw materials in 2007 in Canada. Moreover we plan to appeal to the renowned fashion designers, drawing their attention to natural fibres as an excellent source of fashionable and comfortable fabrics.

I would appreciate your opinions, ideas and contributions, also from the experts working with other natural fibres e.g. abaca, cabuya, cotton, jute and sisal.

All your views will be considered. Thank you in advance.

Looking forward to your contributions.

Yours sincerely,

The Editor, Prof. Dr. Ryszard Kozlowski
STRUCTURE OF THE NETWORK
The European Cooperative Research Network on Flax and other Bast Plants is one of the eleven active networks working within ESCORENA (European System of Cooperative Research Networks in Agriculture). The contact person for ESCORENA in FAO is Ms. Jutta Krause, Regional Representative for Europe, FAO Regional Office for Europe (REU), Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, 00100 Rome, Italy. General information on ESCORENA, the network coordinators, and publications of network results in the REU Technical Series is available on the website of REU http://www.fao.org/world/regional/reu/Content/Escorena/index_en.htm

COORDINATION CENTRE OF THE NETWORK: Institute of Natural Fibres, ul. Wojska Polskiego 71 b, 60-630 Poznan, Poland, tel.: +48(0) 61 8480-061, fax/tel.: +48(0) 61 8417-830, e-mail: netflax@inf.poznan.pl

Network Coordinator – Prof. Dr. Ryszard Kozłowski, General Director of the Institute of Natural Fibres, Centre of Excellence on Natural Lignocellulosic Fibrous Raw Materials “CELLUBAST”, Poznan, Poland, tel.: +48(0) 61 8480-061

Secretary of the Network – Maria Mackiewicz-Talarczyk M.Sc. (Agr.), Institute of Natural Fibres, Poznan, Poland, tel.: +48(0) 61 8455 823

At present, the whole Network brings together 357 experts from 52 countries in the fields of research, economics, marketing and industry. Member countries are: Argentina, Australia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Chile, China, Colombia, Croatia, Cuba, Czech Republic, Denmark, Ecuador, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Latvia, Lithuania, Mexico, Netherlands, Nigeria, Norway, Pakistan, Poland, Portugal, Serbia and Montenegro, Romania, Russia, Slovak Republic, Spain, South Africa, Sweden, Switzerland, Turkey, UK, Ukraine, and the USA.

The Network is represented in South America by Prof. Dr. Alcides Leão (UNESP-Universidade Estadual Paulista, SP-18603-970 Botucatu, Brazil, tel. +55 14/6802 7163, fax +55 14/6821 3438, e-mail: alcidesleao@fca.unesp.br), and Ing. Agr. Daniel Sorlino, Cátedra de Cultivos Industriales, Facultad de Agronomía, Universidad de Buenos Aires, Av. San Martín 4453 (1417) Cap., tel.: 4524-8074/8040, fax: 4514-8739, e-mail: dsorlino@mail.agro.uba.ar, in North America by Dr. Paul Kolodziejczyk, Lead Scientist, New Crops & New Products, Olds College Centre for Innovation, 4500 -50th Street, Olds, Alberta, Canada T4H 1R6, tel.: (403) 507-7970, fax: (403) 507-7977, e-mail: paulk@admin.oldscollege.ab.ca, www.occi.ab.ca, in the Near East by Prof. Dr. Dardiri Mohamed El-Hariri, National Research Centre, El-Tahrir str., Dokki Cairo, Egypt, tel.: +202/ 33 77164, fax: +202/ 33 70931, e-mail: profelhariri@netscape.net. Dr. Rajesh Anandjiwala represents Network in Africa [National Fibre, Textile & Clothing Centre (NFTCC), CSIR, Manufacturing & Materials Technology Unit, e-mail: Ranandi@csir.co.za, Rajesh.Anandjiwala@upe.ac.za, fax: +27-(0) 41-583 2325, tel.: +27-(0) 41-508 3273, Address: CSIR, P.O. Box: 1124, Gomery Avenue, Summerstrand, Port Elizabeth 6000, South Africa]. Mr. Alvin Ulrich, Saskatchewan Flax Development Commission, 161 Jessop Avenue, Saskatoon, SK, Canada S7N 1Y3, tel.: 1.306.668.0130, fax: 1.306.668.0131, e-mail : aulrich@biolin.sk.ca. Please note that it is officially accepted that Mr. Ulrich would act as flax representative from Canada in the FAO/ESCORENA Network on Flax and other Bast Plants. He has also the support from the Saskatchewan Flax Development Commission.
NETWORK WORKING GROUPS (WG):

WG/1. Breeding and Plant Genetic Resources
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WG/2. Extraction and Processing
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The reports of the developments of the quality activities within European program: the COST Action 847: TEXTILE QUALITY AND BIO-TECHNOLOGY, coordinated by Prof. S. Sharma were described in some previous issues (WG News).

WG/5. Non-Textile Applications
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In the Near East – Prof. Dr. Dardiri Mohamed El-Hariri, National Research Centre, Dokki Cairo, Egypt
WORKING GROUP NEWS

Please note!

A more detailed description regarding the activities of the WG1, WG2 and WG4 was given in issue 22. Other Working Groups’ reports were included in all previous editions of this bulletin and can be provided on request by the Network Coordinator.

Activities of the Network are aimed at solving the following problems:

- Development and cultivation of bast fibrous plants is a specific niche production, which can provide with comfort for human body due to eco-friendly properties of natural fibres.
- Reduction in the deficit of lignocellulosic fibrous raw material in Europe.
- Contribution to the reduction in over-production of food in Europe.
- Utilization of by-products such as linseed for the production of agro-fine-chemicals applied to healthy food and nutrition.
- Reclamation of industrial areas polluted with heavy metals by the cultivation of heavy metal-absorbing bast fibrous plants (non-food crops)
- Contribution to sustainable development of rural areas of Europe and other regions.
FLAX, HEMP AND ALLIED FIBRES IN THE WORLD

A Current Situation of Fibre Flax in China

Fengzhi Guan and Guangwen Wu. The Research Institute of Industrial Crops, Heilongjiang Academy of Agricultural Sciences, Harbin, China, 150086. E-mail: wuguangwenflax@163.com

1. Advantages of fibre flax in China

Fibre flax has been planted for over 90 years since its first planting in Heilongjiang Province in 1905, shortly after a successful planting trial of Berna N0.1 variety was conducted and which had been introduced by the Chinese Government in Qing Dynasty in Liaoning Province from Japan.

The Heilongjiang Province is located in northeast China and with its high latitudes offers favourable natural conditions, very suitable for the growth of flax. Planting of fibre flax is concentrated here and accounts for 80 percent of the national flax area. The production area of the whole country has reached more than 130 000 hectares. Flax straw yield is 3.75t/ hectare growing in large area.

More than 100 textile enterprises with a production capacity of 700 000 spindles need from 80 000 to 12 0000 tonnes of fibre per year. There is a total of more than 140 flax processing mills with an annual production capacity of only 40 000 to 50 000 tonnes of fibre, in 50 percent deficient in need. From 2003, China has imported 63 000 to 100 000 tonnes of flax fibre every year.

2. Scientific research of flax in China

The Institute of Industrial Crops of the Heilongjiang Academy of Agricultural Sciences has been engaged in scientific research on flax for more than 50 years. Experts in our institute made most of the proposals and implemented in national level projects.

The Institute has conducted and made a wide scientific exchange and cooperation with seven countries, including Belgium, Canada, Czech Republic, France, Netherlands, Poland, and Russia. Notable results have been achieved in scientific exchange. The Institute is now mainly engaged in research of cross breeding of flax, induced mutation, target gene transfer, extraneous sources DNA inducement, flax male sterile utilization, fibre developing laws, micro-organism glue removal, cultivation, plant protection and germplasm, etc. It has successfully introduced in succession two cultivars from foreign countries: Ariane and Argos and has obtained a widespread application of Heiya No.1 to No.14 etc, totalling more than ten varieties. The new varieties of flax such as Heiya No.8, 9, 10, 11 flax straw yield about 6 000 to 6 895.9kg /hectare, long fibre rate of 16 to 20 percent and fibre output of the flax about 1 000kg per hectare. Heiya No.3 was awarded a third grade prize for invention by the state and Heiya No.2,3,4,6 and 8 were all awarded a second grade prize for scientific and technological progress in agriculture by the Heilongjiang provincial government.

3. Problems

In China the production of raw materials lags behind. Unable to meet the demands of the textile industry and export, the production of fibre flax in China is insufficient in quantity and inferior in quality.

The breeding and planting systems are not well organized and not completely formed; the capability and extension of seed multiplication are not sufficient. Flax mills are short of high-quality seeds and advanced technologies, while the scientific research sections are short of funds.

Crop production has a low degree in mechanization, has no special machines for sowing flax seeds as they only use wheat sowing machines, which results in a larger quantity of seeds to drill, with different seed sowing depth, uneven density and low seedling guarantee rate. In the mid 1980s, flax pullers were introduced from the former Soviet Union but over 80 percent of the flax fields are still harvested manually.

4. Proposals for development in production of flax

- To strengthen the scientific research work of flax

Firstly, breed a new variety of flax with high quality, yield and resistance to various diseases, and the necessary cultivation technology. According to different ecological regions, breed new varieties with different characteristics. Pay close attention to problems of lodging, resistance to blasting and cold, and develop varieties of flax with high fibre content, fibre strength, splitting degree, carding rate and fine yarn count.

Study necessary high quality and effective cultivation technologies to guarantee that the quality and yield are enhanced gradually. Set up various high quality and yield cultivation modes in light of the different characteristics of various varieties, application scope, product potential, local ecological conditions and market demands, etc.
News about Flax in Canada.

Mr. Alvin Ulrich, President, Fibre specialist, Biolin Research Inc., 161 Jessop Avenue, Saskatoon, SK, Canada S7N 1Y3, tel.: 1 306 668 0130, fax: 1 306 668 0131, e-mail: aulrich@biolin.sk.ca

On January 9, 2006, we had a successful Flax Day in Saskatoon with 142 registered participants. Flax Day is always on the first or second Monday of January and coincides with the annual general meeting of the Saskatchewan Flax Development Commission. The annual general meeting generally starts at 8:30 and ends at 9:45 AM. We then have speakers from 10:00 AM to 4:30 PM with each speaker having about 30 minutes. Most speakers presentations revolved around flax seed research and marketing efforts; only Alvin Ulrich and one other speaker talked about R&D related to straw and fibre. With relatively high energy costs in North America now, there is rapidly growing interest in burning flax straw or shives for heat. There are more than 15 companies making biomass burners but, at present, there have been few tests comparing the performance of different burners.

In western Canada we generally use natural gas for heat (energy). Only in the last three years, the natural gas price has risen by a factor of roughly three. Now other sources of energy are becoming more cost competitive with natural gas. We have lots of soft and semi hard coal - it can still be purchased for C$45 to C$55 per tonne; it has not gone up in price with natural gas. Most people do not have a burner to burn flax shive fuel pellets or briquettes. They would have to buy a special burner; such burners could also burn coal. This puts a "ceiling" on the price that could be charged for flax shive fuel pellets since the coal price is still so cheap. It will cost about C$30 to 40/tonne to bale and haul flax straw to a central location. It will cost C$20 to 30/tonne to turn the straw into pellets. This means that, at best, it would cost C$50 to produce flax shive pellets and the local users may only be willing to pay C$50 to C$70, so not much profit is to be gained. Shive fuel pellets are much more valuable in Europe but rail and sea freight for shive pellets to Europe from Saskatchewan are quite high. Is there a potential to export fuel pellets to Europe?

The Saskatchewan government has estimated that about 640 000 ha of oilseed flax were harvested in 2005 in Saskatchewan and the production of linseed was about 880 000 tonnes. This compares to 455 000 ha and 460 000 tonnes of linseed in 2004 (production was very low in 2004 because of an unusually early frost). Since the Saskatchewan area and production represent 75 to 80 percent of total production in Canada the Canadian supply of linseed greatly increased in late 2005 and farm prices are now only about 60 percent as high as they were in the spring of 2005. However, the price of other crops has also dropped due to high local supplies and the rising value of the Canadian dollar (since internationally traded grains are usually priced in USS, when the Canadian dollar rises relative to the American dollar, it has the effect of lowering the Canadian dollar price that Canadian farmers receive for their grain). In the spring of 2006, the profit potential for growing linseed is much lower than it was last year but it is still higher than for most other crops, so Canadian linseed area is expected to be relatively large again in 2006.

Co-operation with the FAO, Rome, Italy

Contact person Mr. Brian Moir, FAO, Rome, Italy, E-mail: Brian.Moir@fao.org

Proposed International Year of Natural Fibres 2009

To raise awareness of natural fibres, to promote efficiency and sustainability of the natural fibres, and to foster an effective international partnership among the various natural fibres industries

A resolution was carried by the Thirty-third Session of the FAO Conference, 19 to 26 November 2005, asking the Director-General of FAO to write to the Secretary-General of the United Nations requesting that 2009 be declared the International Year of Natural Fibres.

Most countries produce some natural fibres; for some developing countries natural fibres are of major economic importance. In other cases these fibres are of less significance at the national level but are of major local importance in particular regions of these countries. Proceeds from the sale and export of natural fibres and fibre products often contribute significantly to the income and food security of poor farmers and processors in the least developed countries. As natural products of plant or animal origin, natural fibres are environmentally friendly.

The objectives of the International Year of Natural Fibres would be:
To raise awareness of these fibres, both of their importance to the agricultural communities that produce them, and of the health/welfare and environmental benefits of producing and consuming them;

To promote the efficiency and sustainability of the natural fibres industries by promoting the sharing of knowledge and the results of experience at the international and national level;

To foster an effective international partnership among the various natural fibres industries and other relevant parties who will participate in the celebration of the IYNF, and who will be sustained to function actively in the future.

Planning and coordination activities, which to some extent have already begun, will need to move forward actively from the beginning of 2006 if a successful International Year of Natural Fibres is to be observed in 2009. One of the first priorities is to seek funding from donors to cover the activities, e.g. of providing publicity, operating one or two specific events such as international conference on natural fibres, etc.

Note: you are welcome to present your intimations, ideas and proposals on how to contribute to the celebration of the International Year of Natural Fibres 2009

ACTIVITIES OF THE FAO EUROPEAN COOPERATIVE RESEARCH NETWORK ON FLAX AND OTHER BAST PLANTS

Next Conferences Proposals

Proposal of event with the Network involvement

2006

- June 12-13, 2006. 12th International Conference on Renewable Resources and Plant Biotechnology NAROSSA® 2006, Magdeburg, Germany, Contact person: Dr. Frank Pudel, ÖHMI Consulting GmbH, Managing Director, Berliner Chaussee 66, 39114 Magdeburg, Germany, tel.: +49-391-8507-0, fax: +49-391-8507-150, e-mail: narossa@oehmi-consulting.de. Event co-organised by Institute of Natural Fibres, Poznan, Poland


- December 7-8, 2006. Conference on Natural Fibres: Vision 2020 organised by North India Section of Textile Institute (NISTI), New Delhi, India. Contact person: Prof. R. Chattopadhayay, Department of Textile Technology, Indian Institute of Technology, New Delhi -110016, India, tel.: +91-11-26591412 (O), +91-11-26581977 (R), fax: - 91- 11-2658-1103, e-mail: rchat@textile.iitd.ac.in and Prof. V. K. Kothari, Department of Textile Technology, Indian Institute of Technology, New Delhi -110016, India, tel.: +91-11-26591401 (O), +91-11-26591937(R), fax: 91- 11-2658-1103, e-mail: kothari@textile.iitd.ac.in

2007

- October/November 2007. International textile conference, Rumania, Contact person: Dr Cecilia Sirghie, E-mail: cecilias1369@yahoo.com

Call For Papers

CONFERENCE ON
NATURAL FIBRES: VISION 2020
8-9th December 2006
New Delhi, India

Organized by
North India Section of Textile Institute (NISTI), India

in collaboration with
Institute of Natural Fibres, Coordination Centre FAO/ESCORENA European Cooperative Research Network on Flax and other Bast Plants, Poland

Lightweight, strong and low-cost natural fibres have been for centuries made into clothing as well as a number of other products like baskets, sacks, ropes, and rugs. Over the years a large number of natural fibres such as cotton, wool, silk, linen, bamboo, sisal, jute, coir and abaca have found usage in a wide variety of applications.

From the first cultivation of flax, cotton and domestication of sheep and goats, humans have manipulated natural fibres, through selective planting and breeding, to better fulfil their needs. These days, technology in fibres goes far beyond merely choosing which goats should breed or what variety of cotton should be planted. Cotton breeding these days includes bioengineering of cottonseed for preferred fibre qualities like staple length and for resistance to drought and pests to improve yield and reduce the need for pesticides. The technological advances associated with fibres and textiles do not stop there, however. A unique combination of properties inherent in natural fibres makes them extremely suitable for many applications. They can be blended with man-made fibres to exploit the positive attributes of both natural and man made fibres and develop products manifesting properties not achievable with one type of fibre. Comfort and function are mixing with style to provide a new generation of textile products. New technologies like nanotechnology and bio technology are being used to enhance the properties and performance of natural fibre products. With the growing concern about fitness and wellness, consumers are seeking garments that are rugged, long-lasting, breathable, flexible and stylish. Policy makers, researchers and even consumers are becoming more and more aware of this fact.

The beauty and uniqueness of natural fibres should be exploited and their shortcomings need to be addressed through research and development. A significant amount of work has been done to enhance the quality of natural fibres, their processing and finishing.

The conference offers a platform to all the stake holders to discuss all aspects related to natural fibres so as to have an understanding of their current state of development and secure their future in the competitive environment in the years to come.

Topics/Areas

Papers are invited highlighting the advances in the following broad areas:

- Status of natural fibres in the world and especially in India
- Product, process development and quality issues
- Traditional and new applications
- Use of natural fibres in technical textiles
- Comfort, handle and care properties of natural fibre products
- Blends of natural fibres
- Performance enhancement of natural fibre products
- R & D in natural fibres
- Finishing of natural fibre textiles
- Use of exotic natural fibres
• Natural fibre biocomposites
• Bioengineering in fibres (designer needs, transgenic cotton, spider silk, natural fibres and nanotechnology)
• Sustainability in fibres (organic cotton, abaca)

About Organizers

North India Section of the Textile Institute (NISTI)

NISTI was formed in 1989. It is a subsidiary of the Textile Institute, Manchester, U.K. The Textile institute is an international association, spanning every sector and occupation relating to fibres and their uses, which together form the world’s largest industry. Its mission is to promote professionalism and provide a global network for the long-term development of the industry.

In countries where there is concentration of members, national committees and local sections have been set up to cater for their needs. Each section is run by a committee elected by it and has representatives on the council. The section organizes a number of activities that are of direct interest and relevance to local conditions. An typical programme includes factory visits, meetings, workshop, conferences, seminars, and social events. Keeping in line with these objectives, NISTI organizes a number of activities year round to promote professional knowledge and provide networking for growth and development. NISTI is administered by an Executive Committee comprising eminent professionals drawn from the industry and technical institutes.

Institute of Natural Fibres (INF), Coordination Centre FAO/ESCORENA European Cooperative Research Network on Flax and other Bast Plants, Poland Section of the Textile Institute

INF is an interdisciplinary research centre with international standing, involved in complex research on obtaining and processing natural raw materials (flax, hemp, silk, wool, etc.). In particular, it carries out research on the cultivation and agricultural technology of fibre crops, genetic engineering, biotechnology, retting and spinning technologies.

INF is conducting research in natural fibres processing for their use in the textile and other industries (transport, building, pulp and paper etc.). By-products from lignocellulosic plant processing are utilized for bio-composites. Chemical transformations of by-products into agrochemicals are applied in pharmacy, nutrients, dietetic food and cosmetics. Institute of Natural Fibres acts as the Coordination Centre FAO/ESCORENA European Cooperative Research Network on Flax and other Bast Plants (since 1989), as well as the Centre of Excellence on Natural Lignocellulosic Fibrous Raw Materials “CELLUBAST” since 2004. Director General, The FAO/ESCORENA Network coordinator: Prof. Dr. Ryszard Kozlowski, E-mail: sekretar@inf.poznan.pl
Programme Schedule

Announcement / Call for papers: 10th April 2006
Last date of receiving of Abstract of papers: 30th June 2006
Date of announcement of acceptance of papers: 15th August 2006
Date for receiving of text of full Paper: 30th September 2006

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POSSIBILITIES OF COOPERATION WITH OTHER NETWORKS AND ASSOCIATIONS IN TEXTILES AND ON INDUSTRIAL CROPS

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2. CELC/MASTERS OF LINEN, 15, rue du Louvre, 75001 Paris, France, tel.: +33(0)1 42 21 06 83, fax: +33(0)1 42 21 48 22, e-mail: info@mastersoflinen.com http://www.mastersoflinen.com
3. The E-mail Forum: Information Exchange on Natural Fibres, operated by FAO’s Commodities and Trade Division, contact person: Brian Moir, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy, fax: +39 06 57054495, tel.: +39 06 57054339, e-mail: Brian.Moir@fao.org
   To subscribe to the forum, send an email to mailserv@mailserv.fao.org, leave the subject line blank, with the message: subscribe Fibres-Indy-L. Website: http://www.fao.org/es/esc/
5. Flax Council of Canada; The Council is based in Winnipeg, with Mr. M. Barry Hall as President. The previous president Mr. Donald H. Frith retired. The address of this institution is: FLAX COUNCIL OF CANADA, 456-167 Lombard Avenue, Winnipeg, Manitoba, Canada R3B 0T6, tel.: (204) 982-2115, fax: (204) 942-1841, e-mail: flax@flaxcouncil.ca
6. Saskatchewan Flax Development Commission, A5A-116-103rd Street East, Saskatoon, Saskatchewan, S7N 1Y7, tel.: (306) 664-1901, fax: (306) 664-4404, e-mail: saskflax@saskflax.com, Web site: www.saskflax.com
7. The Fiber Society with Mr. Charles A. Cannon Professor as Secretary, Director Emeritus, Nonwoven Cooperative Research Center, College of Textiles, Box 8301, North Carolina State University, Raleigh, NC 27695-8301 USA, e-mail: subhash.batra@ncsu.edu, web page URL: thefibersociety.org
8. International Hemp Association, Postbus 75007, 1070AA Amsterdam, The Netherlands. tel/fax: +31 (0)20 618-8758, e-mail: iha@euronet.nl
11. Olds College Centre for Innovation Natural Fibre Centre (OCCI), 4500 -50th Street, Olds, Alberta, Canada T4H 1R6, tel.: (403) 507-5206, fax: (403) 507-7977, e-mail: relvestad@admin.oldscollege.ab.ca, www.oci.ab.ca
12. Agrofibre Network, Finland, contact person: Antti Pasila, University of Helsinki, e-mail: antti.pasila@helsinki.fi
13. GRiCI (Research Group on Industrial Crops) headed by Prof. Dr. Gianpietro Venturi, Full Professor of Agronomy and Crop Science, Department of Agroenvironmental Science and Technologies (DiSTA), University of Bologna – ITALY, tel.: +39 051 2096652, fax: +39 051 209 6241. For more pieces of information see EUROFLAX Newsletter No 23, January 2005.
SPECIAL STUDIES, NEWS, FORUM OF THE DISCUSSION

Support for the Processors of Flax and Hemp Straw for Fibre in Poland

Jerzy Mankowski, Maria Mackiewicz-Talarczyk – Institute of Natural Fibres, Poznan, Poland, e-mail: netflax@inf.poznan.pl, tel. +48 61 8 455 823, fax: +48 61 8 417 830

After the accession of Poland to the European Union in 2004, the increase in financial support for rural areas and farmers took place. Under the Common Agricultural Policy, among other ways of providing financial support to flax and hemp market subsidies for the processing of flax and hemp straw for fibre have been introduced. The above-mentioned mechanisms are based on the following regulations:

• (European Commission) Regulation No 1673/00 of 27.07.2000 and according to the domestic law.

The subsidies are granted for the processing of:

- long flax fibre
- short flax fibre
- hemp fibre

The subsidies are provided in the framework of domestic quota, which for Poland are: 924 tonnes of long flax fibre, 462 tonnes of short flax fibre and hemp fibre.

The subsidy sum to the processing of flax and hemp straw for fibre varies depending on the economic year (season) as well as the kind of fibre produced.

The subsidies to the fibrous plant processing in the European Union countries, including Poland are:

1. Long flax fibre
   - 160 Euro in 2002/03 to 2005/06
   - 200 Euro from the season 2006/07

2. Short flax fibre or hemp fibre, containing below 7.5 percent impurities
   - 90 Euro in 2001/02 to 2005/06

The economic subjects eligible for subsidies to the processing of flax and hemp straw are:

- the authorised processors
- or agriculture producers (treated as processors), who order the processing by the authorized processor.

In the season 2004/05 a total of 5 745 ha of flax and 910 ha of hemp was cultivated in Poland. The authorized processors declared for subsidies 218 ha flax and 81 ha of hemp cultivation. They obtained subsidies for 151 tonnes of long flax fibre and 266 tonnes of short flax fibre and hemp fibre produced.

The subsidies to the processing of flax and hemp straw for fibre have encouraged domestic producers and in the season 2005/06 the number of authorized processors has increased significantly.

In the season 2005/06 so much as 1 507 ha of flax and 129 ha of hemp have been subsidized.

The estimated and predicted subsidized production in this season is: 1 350 tonnes of long flax fibre, and 1 400 tonnes of short flax fibre and hemp fibre.

The expected production of both long flax fibre and short flax fibre and hemp fibre will exceed the quotas for Poland, which are: 924 tonnes and 462 tonnes respectively. This causes several nonsensical situations for the Polish processors. One of the examples is the value of mean output index for long flax fibre, short flax fibre and hemp fibre from 1 ha of flax and fibrous hemp cultivation. This index for the season 2005/06 is described to be 0.613 t/ha for long flax fibre and 0.282 t/ha for short flax fibre and hemp fibre, in spite of much higher outputs, obtained in the practice by the processors.

This index is quoted in the regulation of the Polish Ministry of Agriculture and Rural Areas development, based on the regulation regarding the organization of some agricultural markets of 20.12.2002 and the regulation of the EC No 245/2001. We presume that this will result in the decrease of the subsidies for Polish processors of flax and hemp straw.

The present European Union rules do not predict further subsidies to the flax and hemp straw processing after the season 2005/06.

The analyses aiming at the elaboration of the necessary changes in the subsidies system, granted in the scope of Common Organization of Agriculture Markets for the European flax and hemp sector are being conducted (Report by Ernst & Young).
The attitude and standpoint of the Polish processors of flax and hemp regarding the future of the subsidies are synonymous and unanimous: they are for maintaining the existing subsidies at least at the present level.

The potential lack of the EC subsidies to the processing of straw into short flax fibre and hemp fibre, in the complicated situation on the fibrous plant market, destabilized by increasing and uncontrolled import of linen textiles and cloth garments from China, will result in further increasing of the following, negative economic and social phenomena in the Polish linen industry:

- reduction of the cultivation area and production of fibre flax and hemp, connected with the destabilization of the situation in the industry referring to the crop rotation and conducting reasonable and profitable agricultural production;
- closing up a part of the retting mills – involved in the primary processing of flax and hemp straw into fibre;
- decrease of the competitiveness of domestic textile raw materials, reduction of their supply on the linen market, negative information for the textile industry;
- increase of the fibre import;
- the liquidation of the work places, unemployment rise in the agriculture sector, especially prone to structural unemployment;
- reduction of the income of the producers and processors of bast fibrous plants;
- decrease of the possibility of the investment and modernization of the equipment and machines for harvesting and processing of flax and hemp, which would allow for the increase of yield, outputs, quality and work safety;
- reduction of the financial means for research and implementation of pilot projects in the scope of bast fibrous plant processing.

The above mentioned problems are very vital and of great interest for the flax and hemp society not only in Poland and are the subject of the discussions, exchange of the ideas and opinions on the international fora as well.

In 2005, the following meetings and consultations regarding the actual situation and prospects for the flax and hemp market took place, in the cooperation with the Polish Chamber of Flax and Hemp and the Institute of Natural Fibres in Poznan, namely:

- The meeting with the director Jean Charroin of the AND International and Ernst & Young regarding the current situation of the Polish linen industry in connection with the planned reform of the flax and hemp market – Poznan 30 March, 2005;
- The visit of the representatives of the Federation Nationale des Producteurs de Chanvre from France (President Bernard Lutel, Director Sylvestre Bertucelli). Aim: presentation of the cultivation, processing and utilization of industrial hemp in Poland. Meetings with the representatives of Marshal Office, Great Poland Agriculture Chamber as well as the Great Poland Chamber of Industry and Trade – Poznan, Steszew, Zyrardow 10 -12 May, 2005;
- The exchange of the information and evaluation of the situation and prospects of flax and hemp production development in Poland and Czech Republic; the meeting of Polish Chamber of Flax and Hemp and Lnařský Svaz České Republiky (President Prokop Šmirous, Director Miroslav Hochman ) – Poznan 07 July, 2005;
- The meetings connected with a visit in Poland of the European Commission delegation: Mr Vincent Oldenhove, Ms Susana Humanes, and Ms Monika Filipczynska. The presentations and discussions with the representatives of the Polish Chamber of Flax and Hemp and the Institute of Natural Fibres regarding the situation of the linen industry in Poland and perspectives of its further functioning and EU support strategy. – Poznan, Steszew – 23 September, 2005.

The attitude and standpoint of the Polish linen and hemp society regarding the necessity of maintaining the support and the help to cultivation and processing of flax and hemp for fibre (for the harmonious functioning and development of the market of flax and industrial hemp in Europe) has been clearly expressed and presented both by the Polish Chamber of Flax and Hemp and the Institute of Natural Fibres to Confédération Européenne Du Lin et Du Chanvre (CELC) with headquarter in Paris and COPA (Committee of Professional Agricultural Organizations in the European Union) and COGECA (General Confederation of Agricultural Cooperatives in the European Union) in Brussels.

News from the Institute of Natural Fibres (INF), Poznan, Poland

The Institute of Natural Fibres took part in the 54th WORLD EXHIBITION OF INNOVATION, RESEARCH AND NEW TECHNOLOGY, "Brussels Eureka!" 2005, which took place on November 16-20, 2005 in Brussels, Belgium.

Four of the exhibited inventions of INF and cooperating Polish research organizations were awarded, namely:

1. Method of fibrous plants degumming  Gold Medal (authors: Prof. Dr. Ryszard Kozlowski, Wanda Konczewicz M.Sc., The Institute of Natural Fibres, Poznan, Poland and Mr. Anwar M. Allam, Egypt)
2. Composites obtained from thermoplastic polymers and short flax or hemp fibres  Gold Medal (authors: Prof. Dr. J. Garbarczyk¹, Prof. Dr. Ryszard Kozlowski², J. Mankowski² Ph.D. Eng., D. Paukszta¹ Ph.D. Eng., S. Borysiak¹ Ph.D. Eng., M. Helwig² Ph.D. Eng., "The Technical University of Poznan, "The Institute of Natural Fibres, Poznan, Poland. This invention has been awarded as well with the Ministry of the Education and research of Romania.

3. Underwear manufactured with natural fibres „Treasures Protection”  Gold Medal (authors: Prof. Dr. Ryszard Kozlowski, Małgorzata Florysiak M.Sc., Eng, The Institute of Natural Fibres, Poznan, Poland)


SOURCES OF INFORMATION

Major links to information on network activities and/or network members

b. http://www.inf.poznan.pl [Institute of Natural Fibres, Poznan, Poland]

Websites of the Network Chairmen:

- http://www.agritec.cz [Martin Pavelek, AGRITEC, Šumperk, the Czech Republic]
- http://www.fl-reutlingen.de [Martin Tubach, Institut für Angewandte Forschung (IAF), Reutlingen, Germany]
- http://www.qub.ac.uk [Shekhar Sharma, The Queen’s University of Belfast, UK]
- http://www.univ-rouen.fr [Claudine Morvan, Université de Rouen, France]

Sources of Statistical Data:

www.agrofibrecomposites.com - Agrotechnology and Food Innovations website on natural fibre composites

Internet Hemp Information Sources

- http://Hemp-CyberFarm.com/(information about hemp events, research organizations, correspondence, current legislative efforts in the USA, etc.)
- www.hemp.co.uk regarding Hemp Food Industries Association Contact person: Mr. Paul Beinhaim, e-mail: paul@hemp.co.uk
- http://www.nutiva.com/

LINKS OF THE FAO/ESCORENA EUROPEAN COOPERATIVE RESEARCH NETWORK ON FLAX AND OTHER BAST PLANTS WITH DIFFERENT NETWORKS AND PROJECTS

The European Cooperative Research Network on Flax and other Bast Plants establishes links with the Cotton Network, intending to share and compare the achievements in scope of e.g. bioprocessing of fibres and materials. The close cooperation of the Coordination Centre with the FAO Intergovernmental Group on Jute, Kenaf and Allied Fibres as well as the Intergovernmental Group on Hard Fibres resulted in the continuous participation of the Network Coordinator in the meetings of these Groups as well as in co-operation.

The Network’s members and the Coordination Centre have cooperated and worked within the following EU projects and European programme:

   - COST Action 847: Textile Quality and Biotechnology Chairperson: Dr. Johanna Buchert, VTT
     Biotechnology, Tietotie 2, P.O. Box 1500, Espoo, Finland, tel: + 358 456 5146, fax: + 358 94552103, E-
mail: johanna.buchert@vtt.fi More pieces of information see COST Action 847 news in some previous issues of the bulletin

- COST Action 628. Life Cycle Assessment of Textile Products, Eco-Efficiency and Definition of Best Available Technology (BAT) of Textile Processing. Chairwomen – Eija Nieminen, Dr. Techn., Director at University of Art. and Design, UIAH DESIGNIUM – The New Centre of Innovation in Design. Hämeentie 135 C, 00560 Helsinki, Finland. Numbers of tel.: ++358 9 756 30424, fax: ++ 358 9 756 30433. e-mail: eija.nieminen@uiah.fi More details about activities of the Cost Action 628 were presented in Euroflax Newsletter No 17.

2. INFORRM-IENTICA project. IENICA was the Interactive European Network for Industrial Crops and their Applications in the Changing Millennium. Coordinator: Mr. Melvyn F. Askew, Defra, Central Science Laboratory at York, SAND HUTTON, YORK, UK Y041 1LZ, tel.: 44-1904-462309; fax: 44-1904-462029, e-mail: m.askew@csl.gov.uk

NEWS ABOUT THE EUROPEAN PROJECTS WITH INVOLVEMENT OF NETWORK MEMBERS

Hemp Sys. Design, Development and Up-Scaling of a Sustainable Production System for Hemp textiles: an Intergated Quality SYStems Approach. http://www.hempsys.net. Project Coordinator: Gianpietro Venturi - Tel. +39 051 2096652 - Fax +39 051 2096241, Email: gventuri@agrsci.unibo.it. Objectives: The main objective of this project is to promote the development of a competitive, innovative and sustainable hemp fibre textile industry in the EU by:

a) Developing an improved, ecologically sustainable production chain for high quality hemp fibre textiles coupled to an integrated quality system for stems, raw and processed fibres, yarns and fabrics based on eco-labelling criteria.
b) Providing a comprehensive economic assessment of EU and international fibre hemp markets, consumer requirements and EU-production costs and returns. c) Disseminating as much as possible the knowledge generated using the latest information technologies.

EUROFLAX. The activities of the Queens University of Belfast have been on assessing quality of fibre from scutching to yarn and fabric. The following tasks, enzyme-processing steps, environment friendly bleaching recipes to replace chlorite and application of spectroscopy to evaluate fibre quality were carried out. A number of commercial processes were developed and treated yarn samples were woven to prove the efficacy of the treatments.

CORTEX. Corona irradiation in textile finishing. Project realized with the INF involvement 2002 to 2005.


EUROCROP. Agricultural Research for Improving Arable Crop Competitiveness. The project under final steps before the start of the realisation.

BIOKENAF. BIOMass production chain and growth simulation model for KENAF. Contract No: QLK5-CT2002-01729. Coordinator: Centre of Renewable Energy Sources (CRES), Greece. Funding: U.E. Start date: 2003; duration: 3 years. Partners: CRES (Greece), University of Catania (Italy), University of Thessaly (Greece), BTG (France), CETA (Italy), INIA (Spain), FCT/UNL (Portugal), ATO (The Netherlands), UNIBO (Italy), INRA (France), ADAS (UK). Description: The overall objective of the project is to introduce and evaluate kenaf as a non-food crop through an integrated approach for alternative land use in South EU that will provide diversified opportunities for farmers for biological materials for the “bio-based industries” of the future. Specific objectives are: determination of the sustainable yielding potential of kenaf; development of a dynamic growth simulation model; evaluation of the effect of harvesting time and storage methods to the quantity and quality of harvested material; evaluation of the suitability of kenaf for both selected industrial and thermochemical energy applications; environmental assessment and LCA to make scenarios for alternative land use in South EU; economic evaluation of kenaf for alternative land use; preparation of a handbook and booklet for kenaf; link establishment between Biokenaf and AKS (American Kenaf Society).

Please, note: the data about projects are delivered only by INF. The Network members were and are kindly requested to contribute to the list, mentioned in the title of the chapter.
NEWS REGARDING PUBLICATIONS ON NATURAL FIBRES

“NATURAL FIBRES – WLOKNA NATURALNE” – a Yearbook of INF

A publication that was probably the unique in the world, which contained scientific publications regarding natural fibres (an English-Polish version yearbook), edited by the Institute of Natural Fibres – Coordination Centre of the FAO Network. Since 2004 Nature Fibres is replaced by a new quarterly Journal of Natural Fibers.

“JOURNAL OF NATURAL FIBERS”

Journal of Natural Fibers (ISSN: 1544-0478), a quarterly edition, is published by the recognized publishing house The Haworth Press, Inc. Binghamton, NY, USA [for more details see: www.haworthpressinc.com]. All scientists are welcome to publish relevant papers in this publication. Contact: Prof. Dr. Ryszard Kozlowski- Editor-in-Chief, fax/tel.: +48(0) 61 8417-830, E-mail: sekretar@inf.poznan.pl or co-editor for USA Richard Kotek Ph.D., College of Textiles North Carolina State University, Raleigh, E-mail: rktok@unity.ncsu.edu, tel: (919) 515-6585, fax: (919) 515-6532. For information on the contents, publication schedule, submission requirements, please check - https://www.haworthpress.com/store/product.asp?sku=J395%20.


Contents of recent, already published, issues of the Journal of Natural Fibers

Journal of Natural Fibers (ISSN: 1544-0478), Contents of Volume 2, Number 1 2005
1. The Influence Of Growing Factors And Plant Utilization Methods On Biomass And Fibre Yield Methods On Biomass And Fibre Yield As Well As On Fibre Quality Of Hemp (Cannabis sativa L.), T. Schäfer
2. How Does Light Intensity Affect The Elementary Fiber Length In Flax? M. Agosti., D. Sorlino, N. Trapani
3. Trends And Methods In Hemp Breeding In Poland. H. Burczyk., M. Kowalski., M. Plawuszewski
4. Analysis Of Hemp Chemical Pulp Monosaccharide Degradation Compared To Aspen And Spruce Chemical Pulp. F Correira., D. Roy
5. Refining Hemp Fibers For Papermaking. C. Delibas, Trass
7. Oriented Strandboard (OSB) Panels Made From Kenaf Stalks And Aspen. Poo Chow, D. S Bajwa

Miscellaneous
New patents and technologies:
1. Steam Distillation Of Essential Oils From Hemp Panicles. R. Kaniewski, W. Konczewicz
2. Ecological Linen Underwear. M. Florysiak

Journal of Natural Fibers (ISSN: 1544-0478), Contents of Volume 2, Number 2 2005
1. The Development of the Study on Technique for Introducing Exogenous DNA into Flax in China. Wang Yu Fu Kang
2. Flax Improvement By Biotechnology Means. M. Evtimova, M. Vlahova, A. Atanassov
5. Structural Impediments And Prospects For Improved Australian Cotton Production. H. Kidane
Columns: The world market: Prospects For Traditional Jute Products. G. Mackie
Miscellaneous: Research applied to global knowledge of flax development. D. Sorlino
Information: Texas Tech University Researchers Develop Materials Friction Software, S. Sleemmons

**Journal of Natural Fibers (ISSN: 1544-0478), Content of Volume 2, Number 3 2005**

2. Significance Of Different Carbon Sources On Shoot Development Of Miscanthus Genotypes. Sz.Toth, P. Pepo
4. Chemical Finishing Of Linen And Ramie Fabrics. E. Kim, E. Csiszár
5. Low Temperature Chrome Dyeing Of Wool. S.H. Abdel-Fattah, E.M.El-Khatib
6. Highlights On Functional Foods, With Special Reference To Flaxseed. S. Y. Al-Okbi

Reports From Conferences, Symposia, Workshops

- Plant Genetic Resources In Biodiversity Conservation. Report from 2nd Polish Conference. G. Silska
- Information about the 2nd International Conference on Plant Ontogenesis in Natural and Transformed Environments. Physiological, Biochemical and Ecological Aspects. K. Heller, M. Byczynska

**Journal of Natural Fibers (ISSN: 1544-0478), Contents of Volume 2, Issue: 4 2005**

1. The Effect Of Nitrogen Dose, Sowing Density And Time Of Harvest On Development And Yields Of Hemp Cultivar Bialobrzeskie. L. Grabowska, W. Koziara
4. Preparation Of Cotton Materials Using Corona Discharge. N. Carneiro; A.P. Souto; C. Nogueira; A. Madureira; C. Krebs; S. Cooper
5. Evaluation Of The Influence Of Fibre Length And Concentration On Mechanical Performance Of Hemp Fibre Reinforced Polypropylene Composite. M. Pervaiz, M. Sain, A. Ghosh

Columns

1. Information About New Books:

**Note:** Content of Issue No 1 and 2 in the EUROFLAX No 2, the content of issue 3 and 4 of Volume 1 are provided in the EUROFLAX No 23 and on the request.

**PUBLISHING ACTIVITY OF THE FAO EUROPEAN COOPERATIVE RESEARCH NETWORK ON FLAX AND OTHER BAST PLANTS since 1989**

- Newsletter of the ad Hoc Research Group (the Group acted from 1989 to June 1993) – 9 issues

**EUROFLAX Newsletter**

Information Bulletin EUROFLAX Newsletter – 23 issues since 1994 (200 printed copies, reaches subscribers and Network members in 52 countries), available from the Institute of Natural Fibres, Wojska Polskiego 71b, 60-630 Poznan, Poland, fax: +48 61 8 417 830, e-mail: boint@inf.poznan.pl.

**PROCEEDINGS**

of the European Regional and Global Workshops:

- “FLAX IN EUROPE”, Production and Processing, Poznan, 19- 21 June 1989 (available from the Institute of Natural Fibres)
— “FLAX – AS A FIBRE AND OIL BEARING CROP”, Brno, Czechoslovakia, 18-20 June 1991 (available from AGRITEC, Research, Breeding & Services Ltd, Zemědělská 16, 787 01 Šumperk, The Czech Republic, e-mail: agritec@agritec.cz)
— “FLAX IN THE WORLD” Bonn, Germany, 15-17 June 1993 (available from the Institute of Natural Fibres)
— “PRODUCING FOR THE MARKET” — Proceedings of the 4th European Regional Workshop on Flax, 25-28 September 1996, Rouen, France (available at the Institut Technique du Lin 5, Rue Cardinal Mercier, 75009 Paris, France, tel.: +33/1 42 80 40 56, fax: +33/1 45 26 24 27)
— CD Proceedings of “Bast Fibrous Plants for Healthy Life”, October 24-28, 2004, Banja Luka, Bosnia and Herzegovina, Republic of Srpska

PROCEEDINGS of conferences (almost all available from the Institute of Natural Fibres, Poznan, Poland):
— The First Flax Genetic Resources Workshop, Poznan, Poland, 9-10 November 1993
— The Second Flax Genetic Resources Workshop Brno, 8-9 November 1994
— First Workshop of the Non-Textile Applications of Flax Working Group 14-15 November 1994, INF, Poznan, Poland
— Modern Flax Processing – The First Workshop of the Extraction and Processing Working Group, 15-16 March 1995, INF, Poznan, Poland
— Proceedings of the Symposium: Flax and Other Bast Plants, held at the Institute of Natural Fibres, 30.09 and 1.10.97, Poznan, Poland
— Proceedings of the Hemp, Flax and Other Bast Fibrous Plants Production, Technology and Ecology Symposium, 24-25 September 1998, Poznan, Poland
— Proceedings of the Bast Fibrous Plants Today and Tomorrow, Breeding, Molecular Biology and Biotechnology Beyond 21st Century, 28-30 September 1998, St. Petersburg, Russia
— Book of abstracts of the Fifth International Conference on Frontiers of Polymers and Advanced Materials (ICFPAM) and NATO Advanced Research Workshop on Polymers and Composites for Special Applications; 21 and 25 of June 1999, Institute of Natural Fibres, Poznan, Poland
— Innovative Hemp Production and Hemp Products (The News in Hemp Breeding, Cultivation, Harvesting and Processing). Seminar Materials. 23 February 2000, Institute of Natural Fibres, Poznan, Poland
— Proceedings of the Conference Bast Fibrous Plants at the Turn of Second and Third Millennium, 18-22 September, 2001, Shenyang, China
— Proceedings of the Workshop of the FAO/ESCORENA Network: Mapping of European Germplasm for International Flax Data Base Creation, use in Breeding for different Flax and Linseed Varieties, September 18 – 19, 2002, Šumperk, Czech Republic
— CD Proceedings of the Conference “Flax and Allied Fibre Plants for Human Welfare”, December 8-11, 2003, NRC, Cairo, Egypt
— CD Proceedings of the Conference 11th International Conference on Renewable Resources and Plant Biotechnology NAROSSA® 2005, Institute of Natural Fibres, Poznan, Poland, June 6-7, 2005

OTHER RELATED PUBLICATIONS

Industrial Crops

— Journal of Natural Fibers. published by the publishing house The Haworth Press, Inc. Binghamton, NY, USA [for more details see: www.haworthpressinc.com]. For more see page 17.
— IPGRI Newsletter for Europe, published by the International Plant Genetic Resources Institute, Rome, Italy. e-mail: m.colas@cgiar.org
Hemp

- Journal of Industrial Hemp – the journal of the IHA (e-mail: iha@euronet.nl) – International Hemp Association in the Netherlands, edited by The HAWORTH Press, INC, New York, London, Norwood (Australia), e-mail: BCohen7719@aol.com, http://www.haworthpress.com
- Journal of Cannabis Therapeutics – a sister journal of Journal of Industrial Hemp, edited by The HAWORTH Press, INC, (New York, London, Norwood (Australia), e-mail: BCohen7719@aol.com
- Leson Gero, Pless Petra: Hemp Food and Oil for Health – Your Guide to Cooking, Nutrition, and Baby Care; HEMPTECH, 64 p., Sebastopol 06/99
- The Hemp Commerce & Farming Report, (c) 1999 Ahem, Arthur Hanks. Contact at the e-mail address: jfreeman@ssm.net, http://www.hempreport.com
- John E. Dvorak, e-mail: boston.hemp@pobox.com invites you to visit the archives by performing a DejaNews power search for Dvorak, hemp, and archives: http://www.dejanews.com/home_ps.shtml

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www.maff.gov.uk/farm/acu/acu.htm – there are several good papers related to utilization of natural fibres on the UK MAFF web site
- Henryk Burczyk: Hemp Cultivated for Seeds – The Manual for Hemp Farmers (available at the Institute of Natural Fibres, Poznan, Poland)

INFORMATION ABOUT INTERNATIONAL CONFERENCES CONNECTED WITH NATURAL FIBRES AND TEXTILES

Conferences

2006

- March 22-24, 2006. The 61st Flax Institute conference. Contact: Ms. Lisa Johnson, NDSU Plant Science, Fargo, USA, E-mail: lisa.johnson@imap.ndsu.nodak.edu

- April 2-4, 2006. Textile Processing: State of the Art & Future Developments. NRC, Dokki, Cairo, Egypt. Contact: Prof. N. A. Ibrahim, NRC, Tahrir St., 12311 Egypt, Tel.: +202 33 71211, +202 33 70931, E-mail: info@nrc.org.eg

- April 5-6, 2006. 6th Global Wood and Natural Fibre Composites Symposium, Kongress Palais, Kassel-Stadthalle, Germany. Contact: University of Kassel, Tel.: +49 561/804-3675, Fax: +49 561/804-3692, E-mail: m.murr@uni-kassel.de, www.wpc-nfk.de and www.kutech-kassel.de

- April 20-21, 2006. Nonwovens Research Academy 2006. Roubaix (Lille), France. The event will be hosted by ENSAIT (l’Ecole Nationale Supérieure des Arts et Industries Textiles) with the operational partnership of IFTH (Institut Français Textile-Habillement). Organised in cooperation with STFI (Sächsisches Textilforschungsinstitut e.V.) and the Nonwovens Research Group of Leeds University. Contact: Ms. Giovanna Merola, Tel.: +32 2 740 18 19, E-mail: giovanna.merola@edana.org

- April 28, 2006. Final conference of the project HEMP SYS: Design, Development and Up-scaling of a Sustainable Production System for HEMP Textiles: an Integrated Quality SYstems Approach. University of Bologna, Italy, http://www.hempsys.net. Contact: Dr. Stefano Amaducci, Istituto di Agronomia e Coltivazioni erbaee, Via Emilia Parmense, 84, 29100 Piacenza, Italy, Tel.: +39 0523 599223, Fax: +39 0523 599222, Email: stefano.amaducci@unicatt.it

- May 8-10, 2006. 5th European Motor BioFuels Forum, Hilton Newcastle-Gateshead. Contact: EUROPOINT, Congress & Exhibition Organisers, Contact: Ms. Marieke Bouman, P. O. Box 822, 3700 AV ZEIST, The Netherlands, Tel.: +32 (0) 30 6933 489, Fax:+ +32 (0) 30 6917 394, E-mail: mbouman@europoint-bv.com, web: www.europoint-bv.com

- May 17-19, 20067th INTERNATIONAL CONFERENCE EKOTEXTIL 2006 ‘Ecological Certification Significant Marketing Aspect’, Ustron, Poland. Organisers: The Institute of Textile Materials Engineering Lodz, Poland, Österreichisches Textil-Forschungsinstitut Vienna, Austria, VÚTCH-CHEMITEX Žilina, Slovak Republic, Contact person: Wlodzimierz Szczepaniak, The Institute of Textile Materials Engineering, 118 Gdanska Str., 90-520 Lodz, Poland. Tel.: (48 42) 253-44-00, Fax (48 42) 253-44-90, E-mail: iimw@mazurek.man.lodz.pl

- June 4-7, 2006. 4th International Conference on Textile Biotechnology, Seoul, Korea, contact person: Ms. Eun Kyung Choe, KITECH, Seoul, Korea, E-mail: ekchoe@cosmos.kitech.re.kr, www.intb.org

- June 7-8, 2006. International Nonwovens Symposium, Vienna, Austria. Organiser: EDANA, Avenue Eugène Plasky, 157, B-1030 Brussels, Belgium. Contact: Tel.: +32 2 734 93 10, Fax: +32 2 733 35 18, E-mail: info@edana.org, www.edana.org

University of Lodz Faculty of Textile Engineering and Marketing, ul. Zeromskiego 116, 90-543 Lodz, Poland, Tel.: (+ 48 42) 631 33 21, E-mail: mkwi@p.lodz.pl

- **June 12-13, 2006. 12th International Conference on Renewable Resources and Plant Biotechnology NAROSSA® 2006**, Magdeburg, Germany, Contact person: Dr. Frank Pudel, ÖHMI Consulting GmbH, Managing Director, Berliner Chaussee 66, 39114 Magdeburg, Germany. Tel.: +49-391-8507-0, Fax: +49-391-8507-150, E-mail: narossa@oeimi-consulting.de. Event co-organised by Institute of Natural Fibres, Poznan, Poland

  
  Contact: Mrs. Dora Economou, doral@skee.gr at the Hellenic Clothing Industry Association (SKEE), 51 Ermou st., GR - 105 63 Athens, Greece tel +30 210 3223979, fax +30 210 3239159.

- **June 29– July 1, 2006. Knitt-Tech 2006 Conference ‘New Techniques and Technologies in Knitting’** Ciechocinek, Poland. Organisers: Technical University of Lodz, Department of Knitting Technologies and Structure of Knitted Products, TRICOTEXTIL Institute of Knitting Technologies and Techniques. Contact: Zbigniew Mikolajczyk Ph.D.,Eng., Tel.: (48-42) 631-33-38. Malgorzata Fratczak, Tel./Fax: (0-42) 631-33-31, E-mail: katdziew@p.lodz.pl, Technical University of Lodz, Faculty of Textile Engineering and Marketing, Department of Knitting Technologies and Structure of Knitted Products, ul. Zeromskiego 116, 90-543 Lodz, Poland

- **August 30 – 1 September, 2006. 5th International Conference on Sustainable Energy Technologies, Vicenza, Italy** Conference Secretariat: Fondazione Studi Universitari di Vicenza, Stradella S. Nicola, 3, 36100 Vicenza (VI) Italy, Tel.: +39 0444 998894, Fax: +39 0444 998899, E-mail: secretariat.set2006@gest.unipd.it, Website: http://www2.gest.unipd.it/set2006/

- **October 1-5, 2006, THE 53 th CONGRESS OF THE INTERNATIONAL FEDERATION OF KNITTING TECHNOLOGISTS ‘Knitting Today and Tomorrow’**, Plovdiv, Bulgaria, Organisers: Scientific and Technical Union of Textiles Ready-made Clothing and Leathers, The Bulgarian Section of The International Federation of Knitting Technologists, International Federation of Knitting Technologists (IFKT). Contact: Bulgaria, Sofia 1000, 108 Rakovsky Str, E-mail: congress4ifkt@mail.bg or congress4ifkt@yahoo.com www.43kongresIFKT.com

- **October 3-4, 2006. International Symposium ‘Nanotechnologies in textiles’ INTERNANO-TEX 2006**, Lodz, Poland. Organisers: Technical University of Lodz, Faculty of Textile Engineering and Marketing, Department of Man-made Fibres, Polish Textile Association. Chairman of the Organising Committee: Prof. Dr. Bogumil Laszkiewicz, Ph.D., D.Sc., Tel.: +48 42 631 3338. The scope of the conference includes themes connected with preparation, properties and applications of nanofibers, nanofibers composites and interactive nanotextiles.
  
  Contact: Piotr Kulpinski, Ph.D., Tel.: +48 (42) 631 33 62, E-mail: internanotex@mail.pl.p.lodz.pl

- **October 8-11, 2006. International Textile, Clothing & Design Conference: Magic World of Textiles**, Dubrovnik, Croatia. Organisers: The Faculty of Textile Technology, University of Zagreb, Croatia. www.itttc.ttf.hr.For more information please contact: Prof. Zvonko Dragecic, Ph. D., Tel.: +385 1 37 12 542, Tel./Fax: +385 1 37 12 535, E-mail: zvonko.dragjecic@ttf.hr

- **October 19-20, 2006. European Conference on Biorefinery Research**, , Marina Congress Center, Helsinki. A major conference on biorefinery research organised by the European Commission with the support of the Finnish Presidency. For updated information on this event, please consult this website regularly http://europa.eu.int/comm/research/energy/gp/gp_events/biorefinery/article_3764_en.htm or contact the Conference Helpdesk rtd-biorefinery-event@cec.eu.int

- **October 20, 2006. Symposium on technical uses of flax and hemp**, Prague, Czech Republic. Organiser: CELC, 15 rue du Louvre, F-75001 Paris, France. Contact: Tel. +33 142 21 02 35, Fax: +33 142 21 48 22, E-mail: celtc.sg@wanadoo.fr. The event will be held on the occasion of the CELC-congress in October 2006 in Prague.

- **November 21-24, 2006. 8th Pacific RIM Bio-based Composites Symposium**, Kuala Lumpur, Malaysia. Contact: Dr. Mohd Nor Mohd Yusoff, Chairman of Technical Committee. Tel.: 603-6279 7280, Fax: 603-6280 4620, E-mail: mdnor@frim.gov.my, symposium website: http://www.frim.gov.my/newsevent_reg2.cfm

- **November 28th to December 1st 2006. III Symposium on Natural Fibres, Full Use of Fibres and Textile Applications (FIBRATEX 2006), as a part of 13th SCIENTIFIC CONVENTION ON ENGINEERING AND
ARCHITECTURE (CCIA 2006), CUJAE, Cuba, Havana, November 28th to December 1st 2006. Organizer of FIBRATEX 2006: El Instituto Superior Politécnico “José Antonio Echeverría” (CUJAE). Contact person: Ms. Martha Mazorra Mestre, Jefa Grupo de Tensoactivos y Emulsiones, Universidad Técnica de Energía Renovable (UTER), CUJAE. Cuba, Havana, Tel.: 537-266 3633, E-mail: marta@ceter.cujae.edu.cu, conrado@ceter.cujae.edu.cu, http://www.cujae.edu.cu/DocumentosHTML/Vinculos/CCIA%202006.htm

December 7-8, 2006. Conference on Natural Fibres: Vision 2020 organised by North India Section of Textile Institute (NISTI), New Delhi, India. Contact person: Prof. R. Chattopadhyay, Department of Textile Technology, Indian Institute of Technology, New Delhi -110016, India, Tel.: + 91-11-26591412 (O), +91-11-26581977 (R), Fax: +91- 11-2658-1103, E-mail: rchat@textile.iitd.ernet.in and Prof. V. K. Kothari, Department of Textile Technology, Indian Institute of Technology, New Delhi -110016, India, Tel.: +91-11-26591401 (O), +91-11-26591937(R), Fax: +91- 11-2658-1103, E-mail: kotharivk@gmail.com

2007

September 2007. IX International Cotton Conference “Future of Cellulosic Fibres”, Gdynia, Poland. Organisers: - Technical University of Lodz, Department of Spinning Technology, Department of Clothing Technology, contact: Technical University of Lodz, Faculty of Textile Engineering and Marketing, ul. Zeromskiego 116, 90-543 Lodz, Tel.: +48 42 631 33 35 - Gdynia Cotton Association, contact: Gdynia Cotton Association, ul. Derdowskiego 7, 81-369 Gdynia, tel.+48 58 620 75 98, fax +48 58 620 75 97, e-mail: ib@gca.org.pl , www.cotton.org.pl

Fairs connected with textiles

- April 20-21, 2006. 4th Industrial Trade Fair on Microencapsulation. Strasbourg, France. The event aims of presenting the major trends in microencapsulation technologies and markets, creating long term partnership between technology providers and end-users. Organisers: Denis Poncelet, Professor, ENITIAA, Nantes, France, Jean-Antoine Meiners, President, MCC, Colombier, Switzerland, Thierry Vandamme, Professor, ULP, Strasbourg, France, Klaus Eichler, Director, TCC & Glatt, Binzen, Germany. For more information please contact: ITFM4@bioencapsulation.net, Tel.: +33 2 51 78 55 45, Fax: + 33 2 51 78 54 67

- July 11-14, 2006. Hong Kong Intl Textile & Garment Machinery & Technology Fair, Hong Kong, China. Contact: Tel.: +(852)-(852)-25165024, www.adsale.com.hk

- September 13-15, 2006. Baltic Textile + Leather, Vilnius, Lithuania. Contact: LATIA. Tel.: +370 5 273 4789, Fax: +370 5 273 4787, E-mail: latia@latia.lt. www.latia.lt

- September 20-22, 2006. Fachmesse COMPOSITES EUROPE 2006 , Essen, Germany

- September 5-8, 2006. ITE - Textile Expo Uzbekistan, Tashkent, Uzbekistan. Contact: ITE Uzbekistan Tel.: +998 71 113 0 180, Fax: +998 71 151 2164, E-mail: gulnoza@ite-uzbekistan.uz http://www.ite-uzbekistan.uz

- October 3-6, 2006, Textile Expo Russia 2006. 1st Russian International Textile Machinery Exhibition Moscow, Russia

- October 17-21, 2006. CITME 2006 (China International Textile Machinery Exhibition), Beijing, China. Contact: Tel.: +49 89 949 22-350, www.imag.de,

2007


- March 14-17, 2007. 7th AAMA-TEX 2007 (Asia Apparel Machinery & Accessories Exhibition) Singapore Expo, Singapore. Contact: Tel.: 6743 0113, E-mail: smtas@smtas.org.sg


REPORTS ON THE EVENTS


The event was held at the Boardwalk Conference Centre in Port Elizabeth. The conference was organized by Institute of Natural Fibres (INF) (Poznan, Poland) - the Coordination Centre of the FAO/ESCORENA European Cooperative Research Network on Flax and other Bast Plants, the Department of Trade and Industry of Republic of South Africa (the dti), and the Council for Scientific and Industrial Research of South Africa (CSIR).

The event was attended by 151 experts from 22 countries: Brazil, Bangladesh, Canada, China, Czech Republic, Germany, Hungary, India, Iran, Italy, Northern Ireland, Nigeria, Pakistan, Poland, Portugal, Republic of South Africa, Russia, Swaziland, Sweden, Turkey, UK, and the USA. Fifty-one oral presentations and twenty posters were presented during the plenary sessions and six scientific sessions.

The Institute of Natural Fibres delivered nine oral presentations and presented eight posters in the scope of flax and hemp cultivation, extraction, harvesting and processing with special focus to novel advanced non-textile applications especially nano-cellulosic fibres (preparation, properties and directions of application) and smart cellulosic fibres and fabrics. Professor Kozlowski presented the current situation of the FAO/ESCORENA European Cooperative Research Network on Flax and other Bast Plants and proposal for future prospects wit focus on finding the new sources of financing and dimension.

The topics presented in the plenary sessions by the keynote speakers included topics such as: eco friendly natural fibre textiles for sustainable development; cottons role in sustainable textiles and textiles for performance. The balance of the programme was divided into two parallel sessions.. Session A included 27 reports which were distributed between 7 sub-sessions. The first sub-session was agronomy and primary processing; information about fibre quality of hemp grown on the Swedish island Gotland; important plant parasitic nematodes affecting fibre crops such as cotton and hemp in South Africa and “Flax Canada 2015: going beyond the status quo” were presented.

A group of authors from South Africa presented information about the adaptability of European fibre flax (Linum usitatissimum L.) cultivars to South African environmental conditions. The last two talks of this subdivision were devoted to performance of four European hemp cultivars cultivated under different agronomic experimental conditions in the Easter Cape Province of South Africa and application of osmotic pressure for evaluation of quality and quantity of fibre in flax and hemp.

The sub-session A2 was titled “Trends in textile metrology” which was a review on the development of rapid analytical techniques for assessing physical properties of modified linen fabric.

The sub-session A3 “Textile processing (mechanical)” included 6 reports. The first one on a new bale cutter, important stage of the bast fibre plants processing, the second, report was on geometrical and dimensional properties of knitted fabrics (the effect of spinning systems and blending ratios).

The rest were on technical innovations from bale to silver, the effect of course edge on worsted spinning performance and yarn properties, digital printing on silk fabric and textile education.

The next sub-session Functional properties of textile/smart textiles comprised of five reports: the development of multifunctional fibrous structure for technical application; information on the antibacterial cotton fibre; the influence of fabric construction, lignin content and other factors on UV blocking.

The last two reports described the comfort of flexible upholstery fire barriers and smart cellulose fibres and fabrics.

The sub-session A5 entitled “Economical aspects of textile production” included 3 reports: improved profitability through industrial upgrading of bastfibres, information about the newest achievements in curaua processing and applications – a sustainable option of Amazonian region and the works within the project “HEMP SYS: design, development and up-scaling of a sustainable production system for hemp textiles: an integrated quality systems approach. How to effect hemp fibre quality?” were presented

Only one talk was given in the sub-session entitled “Clothing comfort and health aspects of textiles” included high performance in sewing – guaranteeing seam quality through control of sewing dynamics.

The last sub-session of A session was devoted to nanotechnology in textiles. Five reports were included in this subdivision; presentation about nanotechnologies for modification and coating of fibres and textiles and the report devoted to continuous yarns from electrospun fibres. Information about nanostructured nonwovens from water soluble polymers via electrospinning, Nano-cellulosic fibres, preparation, properties and directions of application, report dedicated to decreasing flammability of polymeric materials and application of nanocomposites as flame retardants.
Session B had 9 reports which was distributed between 4 sub-sessions.

Session B1 was titled “Environmental aspects of textile production”. Here 3 reports were given: Commitment to sustainable development in the textile sector, Cleaner production in textile manufacture – results of cleaner textile production project and results of activities to create an ongoing awareness and demand for textile products produces in a more environmentally responsible manner. The second sub-session was titled “Fibre, yarn and fabric properties” it included 3 reports. Information about comparison of cotton yarn strength prediction methods, Using neuro-fuzzy for prediction ring spun yarn strength from cotton fibre properties and cotton fibre quality index.

The third sub-session B3 titled “Textile processing chemical” included 6 reports. Compatibility of cotton/nylon and cotton/polyester warp-knit Terry toweling with industrial laundering procedure; the information about influence of corona treatment on linen fabric dyed with natural dyestuffs; information about the effect of corona treatment on finishing processes of linen fabrics.

The last 3 reports of this sub-session were devoted to the development of a new vat dyeing process for cellulose materials pre-treated with corona, liquid ammonia treatment of linen and cotton/linen fabrics, and comparison of the alkaline hydrolysis of poly (trimethylene terephthalate) and poly(ethylene terephthalate). The last B sub-session, entitled “Application, Development” included 7 reports. Group of contributors gave presentation about development of hemp fibre reinforced polypropylene composite; fibrillation of natural fibres – increasing the specific surface for high performance composites. Information about biodegradable/compostable composites from ligno-cellulosic fibres was described as well.

The last 4 reports were dealing with surface modification of polyester fibres, biodegradable wipes made by hydroentanglement bonding technique, raw materials based on linseed oils for polyurethane synthesis, and tensile properties of composites made of polyester and PALF (pine apple leaf fibre).

The poster sessions included 12 reports. Polymer application in laundering content bleaching agent for wash fastness improvement of dyed fabrics bi-functional reactive dyes; design to save our environment; South Africa perspective in hemp (Cannabis sativa L.) as fibre crop; identification and development of indigenous fibre plant species for small-scale farmers; preparation of enzymatically modified flax fibre to production of rotor-spoon yarn for apparel; biopreparation of fabrics from bast fibres; fit assessment of slopers for women with bottom heavy figures; embellishment of Madhubani designs with Indian traditional embroideries; breeding and cultivation of fibre flax in sustainable agriculture; prevention against mildew growth in natural fibres; phenotypic variation for functional characteristics of some fibre flax cultivars; new self-propelled harvester for fibrous hemp; enhancing beauty of Rajasthani prints (Sanganer and Bagru) with different techniques; enabling smallholder farmers to produce cotton using non-GMO (Bt) cotton varieties; blending yarns with high content of flax, obtained by pneumomechanical spinning; application of fibrous plants to the bioremediation of industry-contaminated soil; flax cultivars resistant to Fusarium wilt from the collection of the Institute of Natural Fibres (Poland); trends in flax and linseed varieties development in the Czech Republic and another problems were discussed in poster sessions.

Prof. Dr. Ryszard Kozlowski and Dr. Rajesh Anandjiwala took part in the closing ceremony of conference. All speakers who took a part in closing ceremony spoke about the success of this conference.

The world production of fibres for today is about 30 million tonnes. It is a significant amount and any kind of improvement of fibre properties as well as fabrics is a very important economical task with a clear sustainability aspect. So, any kind of pure and applied research in these areas is useful, fruitful and economically important.

The participants of this conference decided to organize the same kind of conference in the near future (in two or three years).

The proceeding of conference will be published as a volume by Nova Science Publishers, Inc. (Hauppauge, New York, USA) in 2006. The Editors of this volume will be Dr. Rajesh Anandjiwala, Prof. Ryszard Kozlowski and Prof. Gennady E. Zaikov.

The delegates visited the new enterprise — COEGA: Deepwater Port and Duty-free Industrial Development Zone in Port Elizabeth, whose aim is enlarging production of novel, advanced products e.g. flame-retardant fabrics.
### Statistical Data on Flax

#### Fibrous Flax in the World

### Fibrous Flax Cultivated Area in the World [ha]

<table>
<thead>
<tr>
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<td>450</td>
<td>132</td>
<td>171</td>
<td>142</td>
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<td>70 000</td>
<td>67 900</td>
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<td>15 567</td>
<td>19 250</td>
<td>19 823</td>
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<td>470</td>
<td>150</td>
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<td>6 302- linseed; 2240-fibre flax</td>
<td>7 095</td>
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<td>6 003</td>
<td>5 500</td>
<td>4 318</td>
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<td>3 994</td>
<td>7 649</td>
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<td>202</td>
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<td>France</td>
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<td>68 416</td>
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<td>Ireland</td>
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<td>Latvia</td>
<td>2 000</td>
<td>300-linseed; 1600-fibre flax</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>1 654</td>
<td>1 654</td>
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<td>Lithuania</td>
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<td>4 520</td>
<td>5 100</td>
<td>6 000</td>
<td>6 345 * (fibre flax: 5 745, linseed 600 ha)</td>
<td>est. 6 823 * (Fibrous flax: 6 000)</td>
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<td>/</td>
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<td>%</td>
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<td>300</td>
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<td>/</td>
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<td>60</td>
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<td>19 300</td>
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<td>28 200</td>
<td>32 480</td>
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<td>4 430</td>
<td>156</td>
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Source: Generally, data provided by relevant countries' official organizations (see also the country data). Those data are not marked. Another source of information is described below:

1 A. Daenekindt: Algemeen Belgisch Vlasverbond, Oude Vestingsstraat 15, B-8500 Kortrijk, Belgium, e-mail: albert.daenekindt@vlasverbond.be
2 FAOSTAT Statistical Database Results 1997 http://apps.fao.org
3 Mr. Jordi Petchamé Ballabriga, Administrateur, Olives, huile d’olive et plantes textiles, D.G. VI.C.4 - Loi 130 7/126, European Commission, 15, rue du Louvre, 75001 Paris, France, t.: +33(0)1 42 21 06 83, e-mail: info@mastersoflinen.com
4 A. Daenekindt: Algemeen Belgisch Vlasverbond, Oude Vestingsstraat 15, B-8500 Kortrijk, Belgium, e-mail: albert.daenekindt@vlasverbond.be
5 FAOSTAT Statistical Database Results 1997 http://apps.fao.org
6 Mr. Jordi Petchamé Ballabriga, Administrateur, Olives, huile d’olive et plantes textiles, D.G. VI.C.4 - Loi 130 7/126, European Commission, 15, rue du Louvre, 75001 Paris, France, t.: +33(0)1 42 21 06 83, e-mail: info@mastersoflinen.com
7 Rumania, e-mail: hempflax@inf.poznan.pl
8 Prof. Dr. D. M. El-Harrir, The Network Representative in the Near East, NRC, Cairo, Egypt, e-mail: profelharrir@netscape.net: acc. to Agricultural Economics, 130 000; 130 000
9 EUROFLAX No 2/05

Note: in all tables the mark °/ means data not available
LINEN MARKET/PRICES IN THE EU

Prices of main products and by-products of flax in Belgium (similar as in other countries of the EU)

Source: VLAS Berichten, the newspaper of the Algemeen Belgisch Vlasverbond, Oude Vestingsstraat 15, 8500 Kortrijk, Belgium. Director; Mr. Albert Daenekindt. The subscription of this newspaper can be ordered at the above address. Contact: fax: +32/56/22 79 30, e-mail: albert.daenekindt@vlasverbond.be.

Scutched flax

<table>
<thead>
<tr>
<th>Water-retted</th>
<th>Dew-retted</th>
</tr>
</thead>
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<tr>
<td>long fibre</td>
<td></td>
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<tr>
<td>Quality</td>
<td>Prices EURO/100kg</td>
</tr>
<tr>
<td>lower quality</td>
<td>up to 148.75</td>
</tr>
<tr>
<td>medium quality</td>
<td>148.76 - 173.50</td>
</tr>
<tr>
<td>better quality</td>
<td>173.51 - 185.90</td>
</tr>
<tr>
<td>very good quality</td>
<td>bonus</td>
</tr>
<tr>
<td>short fibre</td>
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<tr>
<td>lower quality</td>
<td>up to 9.90 EURO/100kg</td>
</tr>
<tr>
<td>medium quality</td>
<td>9.91 - 14.85 EURO/100kg</td>
</tr>
<tr>
<td>better quality</td>
<td>from 14.85 EURO/100kg</td>
</tr>
</tbody>
</table>

-----

by-products

- wasted parts of the straw; dew retted price: up to 3.10 EURO/100kg
- wasted parts of the straw price: up to 4.0 EURO/100kg
- by-products from deseeding price: 2.48 EURO/100kg
- short scutched fibre wastes: from 10.00 EURO/100kg
- shives used for particleboard production: from 2.50 EURO/100kg

EUROPEAN SUBSIDY FOR THE CULTIVATION OF FLAX AND HEMP

Submitted by Dir. A. Daenekindt: Algemeen Belgisch Vlasverbond, Oude Vestingsstraat 15, B-8500 Kortrijk, Belgium 1999

Idem 1998 and 1997, with the exception that the amounts are no longer in terms of Ecu but Euro.

Subsidy per hectare (gross = net): 815.86 Euro (25 percent farmer/75 percent scutcher).

2000

Subsidy per hectare (gross = net): 795.46 Euro (25 percent farmer/75 percent scutcher).

2001

With the crop 2001 started a new and completely modified Common Organization of the Markets in flax and hemp, containing a subsidy for the grower and a subsidy for the primary processor of the flax straw.

1. Grower

Flax and hemp are included in the subsidy system for some arable crops (including the obligation to lay fallow 10 percent of the arable crops area). Subsidy 2001 (basis) for fibre flax and hemp: 75.63 euro/ton. This amount has to be multiplied by the "historic yield for cereals" that has been fixed for each agricultural region. Belgium, for instance, has 13 different agricultural regions, and the subsidy amount for flax fluctuated between 509 and 275 euro per hectare.

2. Primary processor (scutcher)

A subsidy is given to the primary processor for the quantity of fibres that is produced:
- 100 euro per ton for long flax fibres;
- 90 euro per ton for short flax fibres and hemp fibres.

3. Additional subsidy

In some regions (Netherlands, Belgium and North of France) an additional subsidy is assigned to the fibre producer:
- for northern regions: 120 euro per hectare;
- in southern regions: 50 euro per hectare.

2002

The same system as for the crop 2001, but change of some subsidy amounts.

1. Grower: basis subsidy 63 euro/ton (instead of 75.63 euro);
2. Processor (scutcher):
- 160 euro per tonne for long flax fibres;
– 90 euro per tonne for short flax fibres and hemp fibres.
3. Additional subsidy (NL/B/F)
– for northern regions: 120 euro per hectare;
– in southern regions: 50 euro per hectare.

2003 and 2004

Same system and amounts as for the crop 2002.
1. Grower: basis subsidy 63 euro/tonne;
2. Processor (scutcher):
– 160 euro per tonne for long flax fibres;
– 90 euro per tonne for short flax fibres and hemp fibres.
3. Additional subsidy (NL/B/F)
– for northern regions: 120 euro per hectare;
– in southern regions: 50 euro per hectare.

2005

1. Grower

In Belgium, the latest reform of the common agricultural policy - commonly known as the Mid Term Review (MTR) - was implemented already in 2005. France and the Netherlands postponed the implementation until 2006.
The key word of MTR is decoupling. Most of the subsidies the farmer used to receive as direct aid are replaced by a single payment. In order to receive this payment, the farmer has to activate the entitlements he has been assigned, not necessarily by growing a specific crop (decoupling). It is sufficient to keep the soil in a good agricultural condition.
Since the entitlements to the single payment are calculated on the basis of the number of hectares/animals declared during the reference years 2000, 2001 and 2002, their number and amount differ from one farm to another.

2. Primary processor (scutcher)

Same system and amount as for the previous crops:
2.1. production subsidy:
- 160 euro per tonne for long flax fibres;
- 90 euro per tonne for short flax fibres and hemp fibres.
2.2. additional subsidy (Netherlands, Belgium and some regions in the North of France)
- for northern regions: 120 euro per hectare;
- for southern regions: 50 euro per hectare.

2006

1. Grower

idem crop 2005

2. Primary processor

Not clear for the moment (December 2005). The European Commission is evaluating the common organisation of the markets in flax and hemp grown for the fibre, including the processing aid.
COUNTRY DATA ON FIBRE FLAX.

The possessed data regarding acreage of cultivated flax is provided in the general table: FLAX CULTIVATED AREA IN THE WORLD [ha]. We will try to up-date the other data in the next issues of the Newsletter. In this issue we are providing only the set of country data, which are complete and up-dated.

**BELARUS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cultivated area [ha]</th>
<th>Belarussian data</th>
<th>MASTERS OF LINEN data</th>
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<td></td>
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*Send by: 1 I.J. Jarmolovitch, Ministry of Statistics and Analysis of RB, Minsk, Belarus (2000)
2 "Agriculture of the Republic of Belarus". Th e Assemblage of Statistical Office UP MINSTAT, Minsk, Belarus (data collected and sent by Dr. A. A. Lopatnyuk, Ms. L. A. Tinjiakova, The Institute of Agrarian Economics, Minsk, Belarus, E-mail: agrecinst@mail.belpak.by)
3 CELC/MASTERS OF LINEN, 15, rue du Louvre, 75001 Paris, France, tel. +33(0)1 42 21 06 83, fax +33(0)1 42 21 48 22, E-mail : info@mastersoflinen.com*

**BULGARIA**

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>2000</td>
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<td>2001</td>
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<td>2002</td>
<td>470</td>
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<td>2003</td>
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<td>2004</td>
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*Send by: Dr. A. Balabanova, AgroBioInstitute, 2232 Kostinbrod-2, Bulgaria*

**CZECH REPUBLIC**

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<td>Straw yield [t/ha]</td>
<td>3.01</td>
<td>3.34</td>
<td>2.36</td>
<td>3.23</td>
<td>2.73</td>
<td>2.32</td>
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<tr>
<td>Long fibre yield [t/ha]</td>
<td>0.3</td>
<td>0.39</td>
<td>0.35</td>
<td>0.24</td>
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<td>0.32</td>
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<td>Short fibre yield [t/ha]</td>
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<td>0.53</td>
<td>0.42</td>
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<td>0.42</td>
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<td>17484</td>
<td>16811</td>
<td>18526</td>
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<td>Linseed yield [t/ha]*of fibre flax</td>
<td>0.51</td>
<td>0.56</td>
<td>0.50</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
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<tr>
<td>Yarn production [t] (wet + dry spinning)</td>
<td>3850</td>
<td>4835</td>
<td>5301</td>
<td>4300</td>
<td>4150</td>
<td>3894</td>
<td>4020</td>
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<tr>
<td>Production of textiles [1000 m]</td>
<td>12160</td>
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<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<tr>
<td>Particleboards production [m²]</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Export of seed [t]</td>
<td>730</td>
<td>1340</td>
<td>3421</td>
<td>2526</td>
<td>2187</td>
<td>4136</td>
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<td>Export of yarn [t]</td>
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<td>1364</td>
<td>1839</td>
<td>1430</td>
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<td>2088</td>
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<td>Export of fibre [t]</td>
<td>100</td>
<td>90</td>
<td>267</td>
<td>207</td>
<td>226</td>
<td>89</td>
<td>36</td>
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<tr>
<td>Export of linen textiles (fabrics) [1000 m]</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<tr>
<td>Export of cloth (more than 85 percent linen) [t]</td>
<td>1830</td>
<td>2138</td>
<td>2470</td>
<td>1996</td>
<td>1854</td>
<td>1777</td>
<td>1906</td>
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<td>Export of cloth (less than 85 percent linen) [t]</td>
<td>180</td>
<td>184</td>
<td>264</td>
<td>183</td>
<td>190</td>
<td>176</td>
<td>150</td>
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<tr>
<td>Import of fibre [t]</td>
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<td>2925</td>
<td>3001</td>
<td>3169</td>
<td>3457</td>
<td>2603</td>
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<td>Import of yarn [t]</td>
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<td>349</td>
<td>456</td>
<td>279</td>
<td>202</td>
<td>358</td>
<td>563</td>
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<td>Import of textile [1000 m]</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<td>Import of seed [t]</td>
<td>771</td>
<td>561</td>
<td>449</td>
<td>356</td>
<td>376</td>
<td>527</td>
<td>341</td>
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<tr>
<td>Import of linen cloth (more than 85 percent linen) [t]</td>
<td>16</td>
<td>512</td>
<td>609</td>
<td>514</td>
<td>568</td>
<td>353</td>
<td>306</td>
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<tr>
<td>Import of linen cloth (less than 85 percent linen) [t]</td>
<td>28</td>
<td>76</td>
<td>103</td>
<td>78</td>
<td>84</td>
<td>74</td>
<td>184</td>
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*Source: H. Suchomelová, P. Sinirous, S. Krmela, ATOK Praha, Flax Union CR, Šumperk-Temenice, Czech Republic*
Linseed (flaxseed) in Czech Republic

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<tbody>
<tr>
<td>Cultivated area [ha]</td>
<td>600</td>
<td>646</td>
<td>2251</td>
<td>1700</td>
<td>3280</td>
<td>2548</td>
<td>5345</td>
<td>2154</td>
<td>3000*</td>
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ESTONIA

Fibre Flax

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<tbody>
<tr>
<td>Cultivated area [ha]</td>
<td>323</td>
<td>115</td>
<td>137</td>
<td>89</td>
<td>35†</td>
<td>17</td>
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<tr>
<td>Straw yield [t/ha]</td>
<td>0,198</td>
<td>0,513</td>
<td>0,577</td>
<td>1,180</td>
<td>1,971</td>
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<tr>
<td>Long fibre yield [t/ha]</td>
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<td>Long fibre production [t]</td>
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<td></td>
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<tr>
<td>Mill consumption of flax [t]</td>
<td>0,303</td>
<td>0,513</td>
<td>0,831</td>
<td>0,931</td>
<td>0,916</td>
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<tr>
<td>Mill consumption of flax [t]</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Linseed yield [t/ha]</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Linseed yield [t/ha]</td>
<td>0,513</td>
<td>0,513</td>
<td>0,831</td>
<td>0,931</td>
<td>0,916</td>
<td>0,532</td>
<td>0,831†</td>
<td>1,257</td>
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<tr>
<td>Yarn production [t] (wet + dry spinning)</td>
<td>10</td>
<td>3910</td>
<td>7058</td>
<td>9376</td>
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<tr>
<td>Production of textiles [1000 m²]</td>
<td>10</td>
<td>3910</td>
<td>7058</td>
<td>9376</td>
<td>...</td>
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<tr>
<td>Particleboards production [m³]</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<td>Export of yarn [t]</td>
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<td>334</td>
<td>1189</td>
<td>807</td>
<td>896</td>
<td>1266</td>
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<td>44</td>
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<td>125</td>
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<td>Export of cloth [1000 m²]</td>
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| Source: VORU FLAX-MILL and CENTRAL UNION OF ESTONIAN FLAX, Voru, Estonia (1993-1995) and Mr. Einar Kikkas, Department of Agriculture, Ministry of agriculture, Tallinn, Estonia

FINLAND

<table>
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<tr>
<th></th>
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<tbody>
<tr>
<td>Flax cultivated area [ha]</td>
<td>613</td>
<td>850</td>
<td>1067</td>
<td>365</td>
<td>202</td>
<td>97</td>
<td>67</td>
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LATVIA

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LITHUANIA

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<tbody>
<tr>
<td>Fibre Flax Cultivated area [ha]</td>
<td>8600</td>
<td>8600</td>
<td>9600</td>
<td>9346</td>
<td>9444 plus 200 ha linseed</td>
<td>5600 plus 200 ha linseed</td>
<td>3800ha fibre flax, 500ha of linseed. Total 4300ha*</td>
</tr>
</tbody>
</table>

Source: VORU FLAX-MILL and CENTRAL UNION OF ESTONIAN FLAX, Voru, Estonia (1993-1995) and Mr. Einar Kikkas, Department of Agriculture, Ministry of agriculture, Tallinn, Estonia

†) data for the previous years are revised; **) data on export, import are presented by the special trade system;... data not available - magnitude nil

SOE presents the data of the flax production from 1993 to 2002 in Estonia. Until 1999 fibre flax was planted. Since 2000 oil flax and fibre flax were planted. Data of oil flax sown area and yield are not included in this table Stalks yields are estimated on the basis of the production (the quantities) and sown area; At present data of long fibre and short fibre production are not available, but external trade covers these products from 1995. Production of textiles are evaluated in square metre in Estonia. X) data are confidential, XX) included seeds of oil and fibre flax.

FINLAND

<table>
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sent by: Juha Pirkkamaa, Agropolis Ltd, Agropolis-Engineering, Jokioinen, Finland

LATVIA

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Source: U. Apels, Department of Information, Ministry of Agriculture of the Republic of Latvia, Republic Sq. 2, Riga, LV-1981,

LITHUANIA

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<td>3800ha fibre flax, 500ha of linseed. Total 4300ha*</td>
</tr>
</tbody>
</table>

Source: O. Jukneviciene, Minist. of Agricul., Dep. of Strategy of Plant Production, Prospekt Gedimino 19, Vilnus, Lithuania; completed by Dr. Director Algimantas Endriukaitis, LIA – The Lithuanian Institute
### Poland

<table>
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STATISTICAL DATA ON INDUSTRIAL HEMP

HEMP HARVESTED AREA IN EUROPEAN UNION COUNTRIES AND SOME OTHER COUNTRIES

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Source: data of the Management Committee for Natural Fibers of the EU.
FUTURE PLANS

2006

- June 12-13, 2006. 12th International Conference on Renewable Resources and Plant Biotechnology NAROSSA® 2006, Magdeburg, Germany. Contact person: Dr. Frank Pudel, ÖHMI Consulting GmbH, Managing Director, Berliner Chaussee 66, 39114 Magdeburg, Germany, Phone: +49-391-8507-0, Fax: +49-391-8507-150, E-mail: narossa@oehmi-consulting.de


- December 7-8, 2006. Conference on Natural Fibres: Vision 2020 organised by North India Section of Textile Institute (NISTI), New Delhi, India. Contact person: Prof. R. Chattopadhyay, Department of Textile Technology, Indian Institute of Technology, New Delhi -110016, India, tel : 91-11-26591412 (O), 91-11-26581977 (R), fax: - 91-11-2658-1103, e-mail: rchat@textile.iitd.ac.in and Prof. V. K. Kothari, Department of Textile Technology, Indian Institute of Technology, New Delhi -110016, India, e-mail: kothari@textile.iitd.ac.in

Future endeavours: Efforts towards creation of the e.g. European Platform for Natural Fibres or co-operate with another technology platforms, Contributing to the organization by FAO the International Year of Natural Fibres, Searching for projects - to support financially the Network activities.

REMINDER

Subscription orders and contributions for the next EUROFLAX Newsletter can be sent directly to the Editor by letter, fax or e-mail.

Attention

It is possible to order a translation of selected parts (contributions) of each EUROFLAX Newsletter’s issue in French, Polish or Russian for which a charge is made. Send orders to the Coordination Centre of the Network in Poznan.

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Tel: (48) 61 8480 061, fax: (48) 61 8417 830, e-mail: netflax@inf.poznan.pl, http://www.inf.poznan.pl

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