



mushrooms

INTERNATIONAL

Issue 104 – April 2006

NEWSLETTER OF THE INTERNATIONAL SOCIETY FOR MUSHROOM SCIENCE

Mushrooms International is the Newsletter of the International Society for Mushroom Science and is published 4 times a year. It aims to include news and views from around the world (concerning mushroom biology, business, trade and growing practices) and a list of forthcoming events. We welcome articles, news items and suggestions for topics of general interest to our readers.

Please send material for inclusion in Mushrooms International to the Editors:

Tony and Frances Biggs
66 Brahma Road
North Richmond
NSW 2754, Australia
PH: +61 (0)2 4571 1321
Fax: +61 (0)2 4571 3262
E-mail: biggs@zeta.org.au

MEMBERSHIP:

The International Society for Mushroom Science (ISMS) has an open membership policy. Any individual person wishing to join should send a cheque for €45 (euros) to the Treasurer at the above address.

The Society is not responsible for individual opinions expressed in Mushrooms International. Editorials do not necessarily express the views of ISMS Council.

CONTENTS

- [From the President's Desk](#)
- [Officer Profile](#)
- [Beelman Wins Award](#)
- [About the Sinden Collection](#)
- [Acta Edulis Fungi in Chinese and English](#)
- [Ayecue Foundation launched](#)
- [Edible Mushrooms in Taiwan](#)
- [Coming Events](#)
- [4th International Medicinal Mushroom Conference](#)
- [ISMS 2008](#)
- [2nd Symposium of Mycological Teaching and Scientific Research](#)
- [South African Mushroom Farmers Association Conference](#)
- [2nd SMS Conference](#)
- [ISMS Financial Summary](#)

EDITORIAL – MUSHROOMS FOR LIFE

Consumers in all parts of the world are increasingly interested in the potential health benefits to be gained from eating fresh fruit and vegetables. The extent of this interest varies from country to country but it is significant that many of the fast-food restaurant chains, so popular in Westernised countries, are now including salads and fresh fruit on their menus.

At the same time we observe expansion of scientific activity in fields associated with the nutritional and health-promoting properties of fresh produce.

Mushrooms and other edible fungi are featuring strongly amongst these expanding areas of investigation with researchers globally providing scientific verification for properties which have been attributed to the products for centuries.

We can anticipate these areas of research to attract even more attention as consumers and governments increase pressures for healthier eating. National industries and individual companies are already responding as illustrated by the Ayecue initiative reported in this Newsletter.

Mushrooms International would be pleased to hear from members about other initiatives designed to promote Mushrooms for Life.

Tony and Frances Biggs

□□



From the President's Desk

Welcome to this edition of Mushrooms International, I trust you will enjoy it. Hopefully those receiving the electronic version will enjoy the new format. It has several advantages in that it allows the reader a snapshot of the content and quick links to the items of interest and more detailed information if required. It also helps us to keep the size of the file manageable for emailing purposes but still embed color pictures where appropriate. I'd appreciate if email recipients would please send some feedback on what you think about the new format.

Those of you still receiving a hardcopy, you can log on to the ISMS website (www.isms.biz) to see a full color version. However, I recommend you get the email version if at all possible – it'll be worth the effort of sending your email address to Martmari (secretary@isms.biz) so we can make it happen for you.

Reference Material Management Concept

I was deafened by the silence in response to the article in the last MI about how ISMS might handle information in the future. I had just two emails on the matter – thank you to those members who took the time to provide feedback. The Executive Committee will review the situation at its May meeting but I will encourage a very staged and cautious approach to any future initiatives.

Our Beijing office will shortly begin the task of digitizing the ISMS library collection for our website and MushWorld in Korea will begin developing a new web facility for the organization.

WMCC on Again in Beijing

The Second World Mushroom Cooking Competition (WMCC) will be staged in Beijing, China from 6- 8 September. Last year's event in Chengde, China was an outstanding success with international chefs from five countries competing for supremacy. Publicity spread all around the globe.

ISMS is a strong supporter of this initiative by the Chinese Edible Fungi Association so I encourage every ISMS Corporate member to sponsor a chef from their country to enter this year's event.

ISMS Vice –President, Mr Gu Erxiong is expecting major media attention and anticipates the Beijing competition will be even bigger and better than the inaugural event. Further details will be available shortly but anyone interested in entering or attending this year's WMCC should contact Greg Seymour (president@isms.biz).

2005 Financial Report

The ISMS Financial report for last year appears elsewhere in this newsletter. Compliments to our Treasurer, Anton Sonnenberg, for the excellent job he is doing in looking after our finances. The report shows ISMS continues to be in a strong financial position. Our 2006 operational activities are on budget and the organization will continue to grow without putting our current position at risk. Our Secretary, Martmari van Greuning, has also done an outstanding job of keeping the Associations affairs in order.

ISMS Network – a Powerful Asset

Among our ISMS members there is an enormous depth of intellect and experience. I recently had the pleasure of benefiting from this tremendous asset when doing some research to refute the assertions by an ill-informed journalist about mushroom nutrition.

A few quick emails to members who I thought might know something about the topic resulted in some excellent responses and referrals to other experts and key papers in the literature.

In no time at all I had the best information available provided by some of the best scientists on the subject. Having access to the knowledge bank that ISMS possesses via its individual and corporate members is a tremendously powerful asset that makes our membership fee seem miniscule.

Newsletter Timing

Mushrooms International is published four times per year, being due out in February, May, August and November. We are very keen to get articles from members for future editions so let us, and the ISMS membership, know what is happening with mushroom science in your part of the world. Please email all contributions to our editors Tony and Frances Biggs biggs@zeta.org.au. Check the deadlines in this newsletter.

Cheers,
Greg Seymour
President

OFFICER'S PROFILE

Immediate Past President - Dr Mark Wach



A native of San Francisco, California, Dr. Wach attended the University of California at Berkeley, where he received his Bachelor of Science degree in biology in 1978. Subsequently, he spent two years developing and testing new agricultural products for The Dow Chemical Co. His graduate work at The Pennsylvania State University was under the direction of Dr. C. P. Romaine. Dr. Wach's work on the detection of LaFrance disease of button mushrooms provides the basis for commercial virus testing in the mushroom industry today.

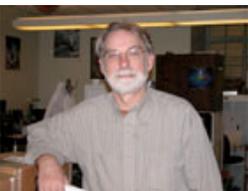
In 1985, following the completion of his doctoral studies, Dr. Wach helped form the research team at Monterey Mushrooms, Inc., the nation's largest producer of fresh market mushrooms. His training in the areas of molecular biology, mushroom biology, and pesticide research allowed him to spend the next several years developing innovative new products for the mushroom industry.

In 1993, Dr. Wach joined Penwest Foods Co., a manufacturer and marketer of corn-based mushroom supplements, as the director of its Agricultural Products Division. During his tenure, the division introduced several new products to the mushroom industry, including Express, a composting accelerator, and Compeat, a coconut based peat moss alternative.

Since 1995, Dr. Wach has served as vice president and director of research and development for Sylvan Inc. He currently directs a multinational team of researchers charged with maintaining Sylvan's position as the premier supplier of mushroom spawn and related products.

He also serves as current Chairman of the American Mushroom Institute and is the immediate Past President of the International Society of Mushroom Science.

Dr. Wach's professional affiliations include: The American Society of Microbiology, The Mycological Society of America, The World Society for Mushroom Biology and Mushroom Products and The Society for Industrial Microbiology. He also serves on the editorial boards of Mushroom News and International Journal of Medicinal Mushrooms and as an invited advisor of Chinamushroom.net and Edible Mushroom Market.□



Beelman Receives Black Award For Excellence In Research

Robert Beelman, Professor of Food Science in Penn State's College of Agricultural Sciences, has received the 2005 Alex and Jessie C. Black Award for Excellence in Research.

The honour, which includes a \$1,000 cash award and a plaque, recognizes significant accomplishments in agricultural research at Penn State.

Prof. Beelman joined the college faculty in 1970. The major thrust of his recent research has focused on cultural, postharvest and minimal-processing practices to improve quality and safety of fruit, vegetable and mushroom products; development of natural food preservatives; and evaluation of bioactive components from mushrooms that can be used in development of functional foods.

Early in his career, Prof. Beelman received international recognition for his research related to the induction of malolactic fermentation in winemaking, which is of critical importance to quality and stability of wines, especially those produced in cool climates where the natural acidity that results is critical.

He isolated and characterized a new strain of malolactic bacteria that he named PSU-1. This strain became the subject of intense academic study and use around the world. His research developed the basis for the first commercial production of freeze-dried malolactic cultures that are now commonly employed as starter cultures to induce malolactic fermentation.

Prof. Beelman also filed a petition with and received approval from the Bureau of Alcohol, Tobacco and Firearms to permit the use of such cultures in wine. As an indication of its importance, PSU-1 was recently selected to be the first wine bacterium to have its genome sequenced.

Among Prof. Beelman's other achievements:

- Established that cultivated mushrooms are by far the best dietary source of ergothioneine, a powerful antioxidant;
- Pioneered the production of selenium-enriched mushrooms;
- Discovered the significance of 10-oxo-trans-8-decenoic acid (ODA), a compound that has unique bioactive properties. ODA appears to function as a growth-stimulating hormone and may lead to more efficient mushroom cultivation or to enhanced production of valuable fungal products.
- Improved safety of fresh mushroom products by reducing populations of unwanted bacteria using novel cultural and postharvest treatments. For example, he developed an irrigation process that results in fresh mushrooms with greatly enhanced shelf life. His Penn State Wash Process is currently being used to produce the precleaned sliced mushrooms now popular on grocery shelves.

Prof. Beelman teaches a senior-level course on science and technology of plant foods in which he strives to integrate the results of his research. He has served as major advisor to 46 graduate students.□

THE SINDEN COLLECTION



The Sinden Collection is a generous gift from Dr. James W. Sinden to the Department of Plant Pathology at the Pennsylvania State University. Since 1994 the cataloged collection has been housed in the Penn State Mushroom Spawn Laboratory at 117 Buckhout Laboratory. The entire catalog is available on the World Wide Web in a searchable PDF document (<http://mushroomspawn.cas.psu.edu/SindenCollection.htm>).

The collection contains a variety of materials including photographs, books, articles, newspaper clippings, government documents, blueprints, field reports, lab notebooks, telegrams, company brochures and correspondence by Sinden and his colleagues. Roughly half of the correspondence is purely scientific, between Sinden and fellow mycologists.

The remaining includes letters to and from mushroom growers and food producers. While the correspondence with growers mostly concerns business, it frequently serves as a record of the success of the application of Sinden's synthetic compost. In this respect, the business correspondence has scientific value as well.

On October 26, 1994 the James W. Sinden Library in Mycology and Mushroom Science was dedicated. A ceremony was held in the Department of Plant Pathology at Penn State. Dr. James W. Sinden and his wife Edith Sigel were special guests in attendance.

To physically view the collection, make arrangements with Vija Wilkinson (814-863-2168, vxw2@psu.edu) to visit the Penn State Mushroom Spawn Laboratory. If you are unable to visit, photocopies of individual items may be mailed at \$0.10 USD per page, plus postage. Requests must specify the catalog Call Number for the articles desired.

Other Sinden documents may be found within the Penn State University Libraries' collections <http://cat.libraries.psu.edu> by searching for James W Sinden.□

ACTA EDULIS FUNGI

At the Fifth International Conference on Mushroom Biology and Mushroom Products held in Shanghai, April 2005, several participants commented on the difficulties they had encountered in accessing mushroom scientific research data, as well as mushroom cultivation and marketing information relating to China. In his keynote presentation, Professor Shu-ting Chang identified four notable Chinese mushroom journals, Edible Fungi, Edible Fungi of China, Acta Edulis Fungi and Mushroom Market but noted that, although two of these journals provided short English summaries of papers, virtually all the information was still published only in Chinese.

In an attempt to address this shortfall, and to facilitate better exchange of information between Chinese mushroom biologists and their counterparts worldwide, Acta Edulis Fungi will, from March 2006 onwards, begin publishing accepted manuscripts in both Chinese and English. Acta Edulis Fungi is an official journal of the Shanghai Academy of Agricultural Sciences and is published quarterly (in March, June, September and December). The Academy's Institute of Edible Fungi (IEF) is now responsible for its future publication, and introduction of the new bilingual journal format is planned for March, 2006.

In addition to the stated objective of providing a channel for imparting information on mushroom research, production and marketing in China, the journal also encourages submission of papers from mushroom biologists working in other countries, and a website giving procedural details is presently under construction. Meanwhile, anyone interested in submitting a manuscript and/or taking out a subscription to the journal should contact:

Editor-in-Chief,
Acta Edulis Fungi,
c/o: Institute of Edible Fungi,
Shanghai Academy of Agricultural Sciences,
35 Nanhua Road,
Shanghai 201106,
P.R. China.
Tel: +86 21 62208660 Ext 3179
Fax: +86 21 62209894
Email: xx8@saas.sh.cn or shiyongjunxuebao@126.com



AYECUE FOUNDATION LAUNCHED

The Ayecue Foundation went public at a ceremony in mid-December 2005 at the University of La Rioja in Spain.

Eduardo Cuevas Villoslada, Director General of the Ayecue Foundation, explained that the Foundation has been launched as an instrument in the process of change and permanent adaptation of the Ayecue Group to the new challenges and urgencies of agro-alimentary activities.

“The Foundation is born to manage the opportunities that contribute to the transference of knowledge in the advances of the cultivation of edible fungi, and to promote outcomes of investigations associated with the properties of white button mushrooms (*Agaricus bisporus*) and other edible fungi.

“The Foundation will disseminate information about the health-promoting properties to the markets and provide behaviour guidelines for consumers “Overall, it will collaborate in the widespread promotion of the benefits of healthy eating habits in human nutrition,” said Eduardo Cuevas Villoslada

Background:

Ayecue commenced operations in 1982 as a family company dedicated to the manufacture and commercialisation of edible fungi.

Today, the Ayecue Group of companies consists of compost production plants, cultivation farms, logistic warehouses, research laboratories and processing factories in Spain, Mexico and China.

Ayecue integrates its activities within a large logistical network which guarantees global commercialisation and distribution of their products.

Activities:

In working towards establishing a healthier world the Ayecue Foundation aims to launch an ambitious program of activities in research and development supported by the Food and Health Research Institute, which the Foundation will manage.

Aims of the Foundation include

- study and promotion of a healthy diet and life
- promotion of the world of gastronomy associated to the world of edible fungi,
- promotion of research, development, management and quality of edible and medicinal fungi,
- development activities related to social sponsorship and patronage,
- organisation of educational and communication programs, orientated to all social scopes, and
- organisation of a range of events such as congresses and symposia.

Food and Health Research Institute:

Food and Health Research Institute, managed by Ayecue Foundation, is vocationally orientated to research, development and innovation associated with mushrooms and other edible fungi.

Aims of the Institute are closely related to those of the Foundation and include:

- promotion of studies for development and transfer of technology which allows advancements in substrate and edible fungi production and conservation,
- promotion, organisation and management of educational programs and information at all levels in the areas of fungi production, commercialisation and consumption, promotion and organisation of events related to the objectives of the Institute and Foundation,
- communication of events, announcements, investigation outcomes, etc which are related to the aims of the Institute and Foundation,
- compilation of publications and information related to the world of edible fungi from scientific, technological, nutritional, medical, anthropological, promotional and culinary perspectives
- promotion of the consumption of edible fungi on the basis of their healthful characteristics, and
- creation and maintenance of the web page: www.ayecuefoundation.org.

The Food and Health Institute has a Scientific Committee which advises on its activities and includes world class researchers. Professor Shu-Ting Chan, Professor Jan I Lelley, Professor Robert Beelman, Dr Shiuan Chen and Dr Glenn Cardwell are all members.

On-going research is following two areas of investigation

- Enhancement of the immune system: Effect of different samples of polysaccharides extracted from mushrooms to be tested.

- Health benefits: Cholesterol regulation and general benefits for health of a regular intake of white button mushrooms

More information: Dr Francisco Javier Rubio Pomar, Director, Food and Health Research Institute, Calle Gallo, s/n. 26560 Autol, La Rioja, Spain. Ph +34 941 390044, fax +34 941 390110, email idi@ayecue.com

Edible Mushroom Production in Taiwan

*Ming-Shu Ho and *Jin-Torng Peng

* Former Director, Dept. of Agricultural Extension, Taiwan Farmers' Association. **Former Director, Dept. of Plant Pathology

Introduction

Mushroom in Western countries usually means *Agaricus bisporus* and *Lentinula edodes* (*Shii-take*) in Japan. In Taiwan, Mushroom does not only mean *A. bisporus* or *L. edodes* but also *Volvariella volvacea* (straw mushroom), *Flammulina velutipes* (golden mushroom) and some times including many other kinds of edible fungi such as *Auricularia*, *Tremella* and *Pleurotus* genus.

Taiwan adjoins the Pacific Ocean in the east, looks southward to the Philippine Islands, separated from the Chinese mainland by the Taiwan Straits in the West, and is 300 odd nautical miles from Okinawa in the northeast. Taiwan proper is 377 km in length from north to south and 142 km in width at the widest point. The Central Mountain Range, running from north to south separates the island into Eastern and Western Zones. On the east coast, slopes fall away steeply to the Pacific depth, but on the west side the land extends 15 to 30 kilometers from the foothills to the sea, forming a big plain area suitable for farming.

The climate is subtropical in the north and tropical in the south. Apart from the mountain moderate temperature region, the average monthly temperature in winter is about 15° C and summer 28°C. The average annual rainfall is 2,500 mm. Due to the different directions of winter and summer monsoon, northern Taiwan is rainy in winter, while southern Taiwan's rainy season extends from early summer to autumn. Typhoons are a specific feature which should be mentioned. With strength and tremendous rainfall, they often bring revolving tropical storms to the island.

The above-mentioned monsoon type weather, success in synthetic compost experiments, use of plastic growing houses, improvement of cultivation techniques and a well organized farmers' organization helped Taiwan to be the largest canned common mushroom (*A.bisporus*) export country in 1973.

Cultivation of edible fungi



Owing to increasing labor costs and competition from developing countries, common mushroom growing (*Agaricus bisporus*) is no longer the major agricultural industry in Taiwan. Today many kinds of mushrooms are consumed domestically, including the common mushroom.

There are four growing methods used for the production of mushrooms by commercial growers:

A. Bed cultivation with compost media: For *Agaricus bisporus* , *Volvariella volvacea*, etc.

B. Wood log cultivation: For *Tremella fuciformis*, *Lentinula edodes*, etc.

C. Bottle cultivation with saw dust media: For *Flammulina velutipes*, *Pleurotus eryngii*, etc.

D. Plastic bag cultivation with sawdust media: For *Auricularia polytricha*, *Pleurotus cystidiosus*, *Pleurotus eryngii*, etc.

Yearly production of edible mushrooms in Taiwan (2005) □

Common name	Scientific name	Number of growers	Production (tonnes)	Market	Unit price (US\$/Kg)
Common white mushroom	<i>Agaricus bisporus</i>	T:254↓ C:21↑	T:2400↓ C:1876↑	Fresh domestic	2.00 – 4.50
Hot mushroom	<i>Agaricus bitorquis</i>	T:40↓	T:285↓	Fresh domestic	3.50 – 4.20
Summer oyster mushroom	<i>Pleurotus cystidiosus</i>	T:30↓	T:700↓	Fresh domestic	1.20
Phoenix tail mushroom	<i>Pleurotus sajor-caju</i>	T+ C:100↑	T+C:4500↑	Fresh and processing, domestic	2.00 – 3.00
Shii-take	<i>Lentinula edodes</i>	T:450↓	T:36000↓	Fresh and processing, domestic	2.00 – 2.60
Golden mushroom	<i>Flammulina velutipes</i>	C: 30↓	C: 36000↑	Fresh and processing, domestic and exported	1.20 – 2.80
	<i>Agrocybe cylindracea</i>	T: 50↑ C: 1	T: 500↑ C: 312↓	Fresh and processing, domestic	3.50 – 5.50
King oyster mushroom	<i>Pleurotus eryngii</i>	T:40↑ C:40↑	T+C:4320	Fresh and processing, domestic	2.80 – 4.90
	<i>Pleurotus citrinopileatus</i>	T:30↑	T:435↑	Fresh domestic	3.10 – 3.50
	<i>Hypsizigus marmoreus</i>	C:2↑	C:470↑	Fresh domestic	5.50
Sunny mushroom	<i>Agaricus brazilia</i>	T+C:100↑	T+C:250↑	Fresh and processing, domestic	7.70 – 12.50
	<i>Lentinus giganteus</i>	T:5↓	T:50↓	Fresh domestic	4.20
	<i>Auricularia fuscusuccinea (white mutant)</i>	T:2↑	T:2(dry)↑	Dry domestic	55.75
	<i>Auricularia mesenterica</i>	T:110↓	T:17500↓	Fresh and dry, domestic and exported	1.20 – 1.60
Straw mushroom	<i>Volvariella volvaria</i>	T:100 ↓	T:2000↓	Fresh domestic	1.00 – 1.40
Shaggy cap	<i>Coprinus comatus</i>	T:6↑	T:60↑	Fresh domestic	4.20 – 5.50
Monkey head mushroom	<i>Hericium erinaceum</i>	T+C:6↓	T+C:60↓	Fresh and processing, domestic	3.50
	<i>Ganoderma tsuga</i>	T:25↓	T:15(dry) ↓	Processing, domestic and exported	17.50 – 24.50
Other Pleurotus mushrooms	<i>Pleurotus spp.</i>	T:3↑	T:40↑	Fresh domestic	1.75 – 2.00
	<i>Coriolus versicolor</i>	T:1	T:2.4(dry)	Dry domestic	35.00

Key:

T=Traditional growing method without climatic control,
C=Climatic control
↑=increasing, ↓=decreasing

Taiwanese people are eating a much wider range of edible mushrooms than previously and are keen to find new types of mushrooms. Vegetarians eat much more mushrooms than others.

Research and development

The major R & D areas under investigation at the Taiwan Agricultural Research Institute are:

- Breeding of edible mushrooms, especially *Pleurotus eryngii*, *Agrocybe cylindracea* and *Agaricus bisporus* as well as *Lepista nuda*.
- Development of an indoor composting method using rice straw as the main material for cultivation of *Agaricus bisporus*, *A. bitorquis* and *A. brazilia* as well as *Lepista nuda*.
- Development of the technology for automated cultivation of those edible mushrooms which can be grown with bottle system.
- Development of new types of edible mushroom such as *Pleurotus tuber-regium* and other *Pleurotus* mushrooms as well as *Maitake*(*Grifola frondosa*), *Lepista nuda* and *Coprinus comatus*.
- Survey and investigation of wild edible mushrooms for artificial cultivation and also for breeding of cultivated species.

For more information, the authors can be contacted on email mshobio@yahoo.com.au.□

Coming Events

2006

- | | |
|------------------------|---|
| May 6-9 | United Fresh Fruit & Vegetable Association Produce Expo and Conference, McCormick Place, Chicago, IL. Phone 202/303-3400 or www.uffva.org |
| May 31-June 2 | Dutch Mushroom Days, Hertogenbosch, The Netherlands. www.mushroomdays.com |
| June 11-13 | 48th Annual Mushroom Industry Conference, Penn State, PA, USA. Phone 814/865-8301 |
| July 23-26 | Second Symposium on Mycological Teaching and Scientific Research, Dalian, China. lvgz@dlnu.edu.cn or luguozhongg@hotmail.com |
| July 11-13 | SAMFA Conference, Kloofzicht Lodge in the Zwartkops Mountains, South Africa |
| August 21-26 | Eight International Mycological Congress (IMC8), Cairns, Australia |
| September 17-20 | 2nd International Spent Mushroom Substrate Symposium, Philadelphia, PA, USA. www.americanmushroom.org |
| October 4 – 8 | 33rd Australian Growers Conference, Stamford Grand, Glenelg, Adelaide, South Australia - info@amga.asn.au |
| October 20-24 | PMA's Fresh Summit, San Diego, CA. www.pma.com |
| October 25-29 | 1st All African Scientific Conference on Edible and Medicinal Mushrooms, Nile Resort Hotel (Jinja) Uganda |

2007

- February 18-20** 19th NAMC, Sheraton San Diego Hotel & Marina. www.americanmushroom.org
- September 23-27th** 4th International Medicinal Mushroom Conference, Ljubljana, Slovenia
- November** 1st International Symposium of Edible and Medicinal Mushrooms and 2nd Meeting in the Biology of Edible and Medicinal Mushrooms, Bahia Blanca, Argentina

2008

- May 21-24** 17th International Congress on the Science and Cultivation of Edible and Medicinal Fungi, Cape Town, South Africa www.mushroominfo.co.za

4TH INTERNATIONAL MEDICINAL MUSHROOM CONFERENCE (IMMC4) IN LJUBLJANA, SLOVENIA

The 4th International Medicinal Mushroom Conference (IMMC4) will be held in Ljubljana, Slovenia between the 23rd and 27th of September, 2007. Slovenia, a member state of the European Union, will host it in its historical capital Ljubljana with a tradition of memorable hospitality. IMMC4 would provide a creative and informative event for mycologists and mycology students, medical doctors, immunologists, contagious disease specialists, naturopaths, ecologists, bioremediators and all those who are interested in studying and discussing the most current research on the biological properties of mushrooms.

We would like to invite you to participate in this event. Please visit the IMMC4 website <http://www.immc4.si> for further information.

On behalf of the organizing committee,
Prof. Dr. Franc Pohleven



CAPE TOWN INTERNATIONAL CONVENTION CENTRE, CAPE TOWN, SOUTH AFRICA
Wednesday 21 to Saturday 24 May 2008

LOCATION:

Cape Town, South Africa, has been voted one of the top international destinations in the world and is filled with natural beauty and a rich variety of stimulating activities. It is blessed to have South Africa's top six tourist attractions within one hour's drive from the city centre: The Victoria & Alfred Waterfront, Table Mountain, Cape Point, the Winelands, Kirstenbosch Botanical Gardens and Robben Island.

VENUE:

The Cape Town International Convention Centre (CTICC) was opened in 2003 and is in Cape Town's city centre, beneath Table Mountain, and only a 20 minute drive from the International Airport. Major hotels are within walking distance to the CTICC.

PROGRAMME:

The academic programme will be held over the four day period, with Farm Walks in the Cape Town area.

TRADE EXHIBITION:

There will be a trade exhibition at the conference. Any interested exhibitors are to please contact Tanya Schmidt at Eastern Sun events: tanya@easternsun.co.za.

SOCIAL EVENTS:

An excellent social programme showcasing the quality of life and beautiful surroundings of the city are planned.

- Winelands theme – dinner on a wine farm
- Cape Malay Street Party
- Cocktails at the Victoria and Alfred
- Waterfront

PRE- AND POST – TOURS:

Delegates can take the opportunity of staying in South Africa a little longer to explore the unique flora of Africa. Examples of pre- and post- tours re:

- Day tours in and around Cape Town
- Wild Flower viewing tours to the northern parts of South Africa.
- Whale watching tours
- Tours to the spectacular Garden Route and Route 62 (which incorporates the world's longest wine route)
- Wildlife excursions to safari lodges

ACCOMPANYING PERSONS TOURS:

Tours will be arranged for accompanying persons that will showcase the wonderful city of Cape Town and environs.

ORGANISING COMMITTEE:

Roddy Cairns (MD, Denny Mushrooms)
Ross Richardson (MD, Highveld Mushrooms)
Dr Martmari van Greuning (Country Manager, Sylvan)

CONFERENCE ORGANISERS

Eastern Sun Events
P O Box 12612, Centrahil, Port Elizabeth, South Africa.
Phone: +27 41-374 5654 Fax: +27 41-373 2042
E-mail: info@easternsun.co.za
Website: <http://www.mushroominfo.co.za/>

MYCOLOGICAL SOCIETY OF CHINA

Second Symposium on Mycological Teaching and Scientific Research

FIRST ANNOUNCEMENT

The Mycological Society of China will hold the Second Symposium on Mycological Teaching and Scientific Research in Dalian, 23-26th July, 2006. This is the first national symposium to be held this century (the first was in 1999), and all mycology teachers and researchers are cordially invited to attend and discuss together the development of mycology in China.

Content of the symposium: academic exchange, special reports and locale visit

Well-known experts and scholars from home and abroad will be invited to deliver special lectures and reports on topics including new worldwide developments in mycology, and the response of mycology to the rapid developments that have taken place in life science theory and technology. The Symposium will provide a forum for the exchange and discussion of new experiences, results and problems of mutual interest relating to mycological teaching and scientific research. These will include the voluntary exchange of teaching courseware to promote the development of mycological teaching and scientific research in China where the popularization and application of mycology is greatly favored.

Organizing and hosting units, date and venue, registration and accommodation arrangements

The symposium is organized by the Education Committee of the Mycological Society of China, and hosted jointly by the School of Life Sciences and the Institute of Biological Resources and Environment of Ethnic Regions, Dalian Nationalities University.

The symposium will be held at the Ethnic Commission Training Center at Dalian Nationalities University, July 23-26, 2006. (Notification will be given of any venue change).

Registration fee: Regular participant, 600 yuan (RMB); Students, 400 yuan (RMB) (student card must be shown). Participants are responsible for their own travel, accommodation and eating arrangements and costs. Rooms can be reserved at the 4-star hotel located at the Ethnic Commission Training Center of Dalian Nationalities University for between 100 and 400 yuan (RMB) per night.

Symposia and submission of manuscripts

Papers of up to 5000 words describing unpublished data will be considered, and accepted papers will be published in a symposium edition of the Journal of Fungal Research. Manuscripts should be written strictly according to the author guidelines for the Journal, and both a printed and electronic copy using Word format should be submitted. Manuscripts will be peer-reviewed, and authors will be charged 50 RMB (non-refundable) at the time of submission and a page charge of 100 RMB if the paper is accepted for publication. The deadline for submitting manuscripts is 4th June (printed versions must be postmarked on or before this date). □

Contact persons:

Lu Guo-zhong, Sun Xiao-dong
School of Life Sciences,
Dalian Nationalities University,
No.18, West Liaohe Road,
Economic and Technical Development Zone,
Dalian 116600.
Tel: 0411-87531936 (office), 0411- 81632508?MP?
Fax: 0411-87531936
E-mail: lvqz@dlnu.edu.cn or luquozhongq@hotmail.com

Zhang Tian-yu, Wu Yue-ming
College of Plant Protection,
Shandong Agricultural University,
College of Plant Protection,
Shandong Agricultural University,
Tai'an,
Shandong 271018
Tel: 0538-8242574 (office), 0538-8242221, 0538-686906?MP?
Fax: 0538-8241324
E-mail tyzhang@sdau.edu.cn or yueming11@163.com

Mycological Society of China, School of Life Sciences, Dalian Nationalities University; Institute of Biological Resources and Environment of Ethnic Regions, Dalian Nationalities University.

South African Mushroom Farmers Association (SAMFA) Conference 11 July 13 July 2006

The conference will be held at the magnificent Kloofzicht Lodge which is nestled in the foothills of the Zwartkops Mountains in the Cradle of Humankind. The lodge is the essence of tranquillity and ultimate luxury, a comfortable 40 minute drive from both Johannesburg and Pretoria.

The serenity is embodied by water, as the lodge, overlooks six exquisite fly fishing dams and the lower reaches of the Blaauwbank Spruit, as it meanders through the unspoilt Zwartkops gorge. The dramatic scenery, natural vegetation and the abundant wildlife set the mood.

Geoff Martin, from Mushroom Composters in Australia, will provide a keynote presentation, sharing his experiences in composting in Australia and New Zealand. Bill Chen, from Sylvan China, will talk about general and mushroom industry developments in China. Eric Vernooij from Euroveen will address issues associated with casing which are critical to growing quality mushrooms in the desired quantity. A representative from Christiaens will speak about Energy Management in the Mushroom Industry.

The farm visit will be to Thornford Mushrooms. Andrew Ford, one of Rossouw Composters' customers will show the conference around his new farm.

Experience a genuine South African brand of unpretentious hospitality, and conferencing that will make your attendance at this worthwhile event an unforgettable experience.

Don't delay in registering as accommodation is limited.

Contact: Eastern Sun Events,
Conference Secretariat
PO Box 12612
Centrahil
Port Elizabeth RSA 6006
Ph: +27 41 374 5654
Fax: +27 41 373 2042
email: info@easternsun.co.za

2ND INTERNATIONAL SPENT MUSHROOM SUBSTRATE SYMPOSIUM

The 2nd International Spent Mushroom Substrate Symposium will be held September 17-20, 2006 in Philadelphia PA, USA. This spent mushroom substrate (SMS) symposium is being organized by The Pennsylvania State University, American Mushroom Institute and the International Society of Mushroom Science (ISMS). The 1st International SMS Symposium was held in Philadelphia, March 1994 and the published proceedings continue to be a valuable resource to industry and academia.

The 2006 conference promises to embrace the latest advances, challenges, and opportunities for spent mushroom substrate one of the most important issues confronting the commercial mushroom industry. This SMS Symposium will feature invited speakers, paper presentations, and poster sessions emphasizing scientific and technical aspects pertaining the use and disposal of spent mushroom substrate.

The conference will be a scholarly, interdisciplinary symposium of scientists and experts who will share their knowledge and expertise regarding the nature and uses for SMS. The audience will consist of agricultural and biological scientists, educators, engineers, mushroom farmers and others from agriculture, business, government and waste management.

Publication

The SMS Scientific Program Committee welcomes the submission of significant and original research on any topic related to Spent Mushroom Substrate. All papers submitted and deemed acceptable following editorial review by the Scientific Program Committee will be published in the formal proceedings of the symposium.

Note: Manuscripts will not be published if the author has not completed the conference registration.

Important Date

June 30, 2006 – Deadline for submission of full papers and for registration for contributing authors

Website: <http://www.ppath.cas.psu.edu/SMS-Symposium/Symposium.htm>

Scientific Program Committee

David M. Beyer, Chairman (Department of Plant Pathology, Pennsylvania State University.)
Phil Coles (Giorgi Mushrooms)
Paul H. Heinemann (Department of Agricultural and Biological Engineering, Pennsylvania State University.)
Charlee Kelly (Monterey Mushrooms)
Ken Lomax (Department of Bioresource Engineering, University of Delaware)
Don Needham (Hy-Tech Mushrooms Compost)
Ralph Noble (Warwick University)
John Pecchia (Department of Plant Pathology, Pennsylvania State University)
Geoff Price (Sylvan)
Danny Rinker (Department of Plant Agriculture, University of Guelph)

For further information, please contact:

David M. Beyer

Associate Professor
Mushroom Science and Technology
Department of Plant Pathology
Pennsylvania State University
102 Buckhout Lab
University Park, PA 16802
Office: 814-863-7059
Fax: 814-863-7217
Email: dmb8@psu.edu
Website: <http://www.ppath.cas.psu.edu/SMS-Symposium/Symposium.htm>

Laura Phelps

American Mushroom Institute
One Massachusetts Avenue, NW
Suite 800
Washington, DC 20001
USA
202/842-4344 (phone)
202/842-2345 (fax)
Email: lphelps@mwmlaw.com □

ISMS Financial Summary for Financial Year 1 January to 31 December 2005

Income		Expenditure	
Membership		Newsletter UK	€2,927.05
Corporate	€8,841.87	Newsletter SA	€991.03
Associate members	€90.00	ISMS costs	€564.00
Individual members	€1,308.76	Admin costs	€76.56
Total	€10,240.63	Bank costs	€74.97
		Sponsorship	€2,050.00
Westminster Bank Account	€24,083.86	Total	€6,683.61
Rabo Bank Account 31-12-2006	€27,485.00		
Excess income over expenditure to balance			€3,557.02
Current balance (18-04-06)			€31,411.48

□

The bank account of the ISMS has been transferred in September 2005 from The Westminster Bank in the UK to RABO Bank in the Netherlands. The undersigned present treasurer has received a positive bank balance from the previous treasurer (Jeff Smith) of € 24,083.86.

As you have noticed, membership fees can be paid now by electronic bank transfer to the following account:

IBAN: NL28RABO0109770862

BIC: RABONL2U

Address: Schouwburgplein 13, 5801BV Venray, The Netherlands

I want to thank all members that have paid their fees by electronic banking. This reduces the amount of work and simplifies the administration considerably. I want to stress all members that pay by cheque to consider, if possible, payments by electronic banking. The collection of every cheque costs ca € 11.00 which is a considerable percentage of a membership fee of €45.00. I also want to ask all members to include their name and invoice number which simplifies the tracing of payments.

Alternatively, members can pay by credit card but the fees charged by the credit card company also means less of the membership fee is available to ISMS. Electronic banking transfer is the best method.

Anton Sonnenberg

ISMS Treasurer

DEADLINE FOR SUBMISSION OF ARTICLES FOR ISSUE

105 IS 30TH JUNE 2006

EMAIL TO: biggs@zeta.org.au

CONTACTS

PRESIDENT:

Greg Seymour
C/- Locked Bag 3,
Windsor NSW 2756,
Australia
Ph: +61 (0) 2 45776877;
E-mail: president@isms.biz

SECRETARY:

Dr Martmari Van Greuning
c/- PO Box 11171,
Centurion 0046, Pretoria,
South Africa.
Ph: +27 1 2665 2210;
E-mail: secretary@isms.biz

TREASURER:

Dr. Anton Sonnenberg
c/- PO Box 6042, 260 AA,
Horst, The Netherlands.
Ph: +31 77 464 7575;
E-mail: treasurer@isms.biz

INTERNET:

<http://www.isms.biz/> □