

ISHS Section on Medicinal and Aromatic Plants in conjunction with ISHS Commission on Plant Genetic Resources and ISHS Commission on Fruits and Vegetables and Health presents



III International *Humulus* Symposium



will be held 9th – 14th September 2012 in Zatec, Czech Republic, under the auspices of the International Society for Horticultural Science (ISHS)

Invitation

The Organizing Committee has the great pleasure of inviting you to participate in the **3rd International Society for Horticultural Science (ISHS) International *Humulus* Symposium** to be held **9-14th September 2012** in the historic city of **Zatec (Saaz), Czech Republic**. The Symposium is supported by the **ISHS Section on Medicinal and Aromatic Plants**, the **ISHS Commission on Plant Genetic Resources** and the **ISHS Commission on Fruits and Vegetables and Health**, in collaboration with the **Hop Research Institute Co.Ltd. Zatec, Czech Republic** and **The University of Tasmania, Hobart, Tasmania, Australia**. The Symposium will be held at the conference facilities of the **Hop Research Institute**. Transport between Zatec city centre hotels and the conference site will be organized.



The aim of the *Humulus* Symposium is to explore the progress being made on various aspects of hop research and will be organized in the following **6 sections**:

- 1. Hop Breeding and Molecular Biology**
- 2. Plant Pathology, Virology, Entomology**
- 3. Chemistry and Plant Physiology**
- 4. Hop Cultivation and Management**
- 5. Hop, Indispensable Raw Material for Brewing**
- 6. Hop, Beer and Health**

The program will include lectures by **invited speakers**, **oral presentations**, and **poster sessions**. The official language of the *Humulus* Symposium will be **English**. The **proceedings** of the *Humulus* Symposium will be published by ISHS as an **Acta Horticulturae** volume.

The benefits to attending the *Humulus* Symposium include an abundance of opportunities to **network, learn, build relationships**, and hear first-hand **the latest hop science** and related applications. It will be a great chance for everyone to connect with colleagues and discuss the latest information. As the *Humulus* Symposium will be occurring in the hop **harvest season in the Saaz hop region**, **field trips and excursions to harvesting and processing facilities** will be organized for the participants. Furthermore, we are planning to visit the **Saaz Hop Museum, Hop and Beer Temple**, and a small copy of **traditional beer tasting** during **55th Hop Harvest Festival**, which will be held in Zatec before the symposium.



We look forward to seeing you in Zatec.

Best wishes,

Dr. Josef Patzak (co-convener)

Prof. Dr. Anthony Koutoulis (co-convener)

Scientific committee

Dr. Ron Beatson	HortResearch, Nelson Regional Centre, Motueka, New Zealand
Dr. Karel Krofta, Dr. Josef Patzak, Dr. Josef Vostrel	Hop Research Institute, Zatec, Czech Republic
Doc. Dr. Pavel Dostalek	Institute of Chemical Technology Prague, Prague, Czech Republic
Dr. Jaroslav Matousek	Biological Centre ASCR, Ceske Budejovice, Czech Republic
Dr. Peter Darby	Wye Hops Ltd., Canterbury, Kent, UK
Dr. Andreja Cerenak Dr. Sebastijan Radisek	Slovenian Institute of Hop Research and Brewing, Department for Plants, Soil and Environment, Žalec, Slovenia
Prof. Dr. Branka Javornik	University of Ljubljana, Biotechnical Faculty, Ljubljana, Slovenia
Dr. David Gent	US Department of Agriculture-Agricultural Research Service, Department of Botany and Plant Pathology, Oregon State University, Corvallis, Oregon, USA
Dr. John Henning	National Forage Seed Production Research Center, Department of Crop and Soil Science, Oregon State University, Corvallis, Oregon, USA
Dr. Barbara Reed	Agricultural Research Service, National Clonal Germplasm Repository, USDA, Oregon, USA
Dr. Paul Matthews	Steiner Hops Ltd., S.S.Steiner, New York, USA
Dr. Stephen Kenny	Department of Crop and Soil Science, Washington State University, Prosser, Washington, USA
Dr. Ken Eastwell	IAREC, Washington State University, Prosser, Washington, USA
Prof. Dr. Anthony Koutoulis Dr. Simon Whittock	School of Plant Science, The University of Tasmania, Hobart, Australia
Dr. Sarah Pethybridge	Botanical Resources Australia – Agricultural Services Pty. Ltd., Ulverstone, Australia
Dr. Elisabeth Seigner, Dr. Stefan Seefelder	Bayerische Landesanstalt für Landwirtschaft, Institut für Pflanzenbau und Pflanzenzuchtung, Freising, Germany
Prof. Dr. Gerd Weber	Department of Plant Breeding and Biotechnology, University of Hohenheim, Stuttgart, Germany
Prof. Dr. Jonathan Page	Department of Biology, University of Saskatchewan, Canada
Dr. Arne Heyerick	Ghent University, Faculty of Pharmaceutical Sciences, Ghent, Belgium

Dr. Ana M. Fortes
Plant Molecular Biology & Biotechnology Unit, ICAT,
FCUL, University of Lisbon, Lisbon, Portugal

Prof. Dr. Jean-Marc Jeltsch
Université de Strasbourg 1, Ecole Supérieure de
Biotechnologie Strasbourg, Illkirch Graffenstaden, France

Local organizing committee

J. Patzak, Hop Research Institute, Zatec, CR
J. Vostrel, Hop Research Institute, Zatec, CR
K. Krofta, Hop Research Institute, Zatec, CR

Conveners

J. Patzak, Hop Research Institute, Zatec, CR
A. Koutoulis, University of Tasmania, Hobart, Australia

Invited Speakers

Section 1 - Hop Breeding and Molecular Biology

Dr. Jaroslav Matousek

Biological Centre AS CR, Institute of Plant Molecular Biology, Ceske Budejovice, Czech Republic
„Molecular background putatively involved in regulation of lupulin gland metabolome“

Dr. John Henning

National Forage Seed Production Research Center, Department of Crop and Soil Science,
Oregon State University, Corvallis, Oregon, USA
„Overview of the USDA-ARS Hop Molecular Breeding Program“

Dr. Simon Whittock

Hop Products Australia, Bellerive, Tasmania, Australia
„Overview of the Australian hop breeding program“

Section 2 - Plant Pathology, Virology, Entomology

Dr. David James

Department of Entomology, Washington State University, Prosser, Washington, USA
„How methyl salicylate evolved from candy to a tool for hop pest management“

Prof. Dr. Teruo Sano

Plant Pathology Laboratory, Faculty of Agriculture and Life Sciences, Hirosaki University,
Hirosaki, Japan
„The history, origin, and diversity of hop stunt and hop stunt viroid“

Section 3 - Chemistry and Plant Physiology

Dr. Martin Biendl

Hopsteiner HHV, Mainburg, Germany
„Isolation of prenylflavonoids from hops“

Dr. Ana M. Fortes

Plant Molecular Biology & Biotechnology Unit, ICAT, FCUL, University of Lisbon, Lisbon, Portugal
„Organogenic Nodule Formation in Hop: A Tool to Study Morphogenesis in Plants with Biotechnological and Medicinal Applications“

Section 4 - Hop Cultivation and Management

Dr. Hiroo Matsui

Suntory Beer and Spirits Ltd., Tokyo, Japan
„Saaz hop quality and cultivation influences“

Dr. Barbara Reed:

Agricultural Research Service, National Clonal Germplasm Repository, USDA, Oregon, USA
„Cryopreservation and maintenance of hop material in USDA germplasm collection“

Section 5 - Hop, Indispensable Raw Material for Brewing

Prof. Dr. Guido Aerts

KaHo St.-Lieven, Association KULeuven, Laboratory of Enzyme, Fermentation, and Brewing Technology, Ghent, Belgium
„The origin of staling aldehydes: hop versus malt“

Section 6 - Hop, Beer and Health

Dr. Clarissa Gerhauser (by proxy)

German Cancer Research Center, Toxicology and Cancer Risk Factors, Heidelberg, Germany
„Xanthohumol from hop and cancer prevention“

Dr. Arne Heyerick

Ghent University, Faculty of Pharmaceutical Sciences, Ghent, Belgium
„Medicinal uses of hops: Focus on estrogenic properties“

Preliminary program

Sunday 9 September 2012

Day of Arrival, Registration

Monday 10 September 2012

Registration

1.Hop Breeding and Molecular Biology Lectures /

Poster session

Welcome reception

Tuesday 11 September 2012	2.Plant Pathology, Virology, Entomology 3.Chemistry and Plant Physiology Lectures / Poster session Beer tasting
Wednesday 12 September 2012	4.Hop Cultivation and Management Lectures / Poster session Excursions (harvest, museum and temple)
Thursday 13 September 2012	5.Hop, Indispensable Raw Material for Brewing 6.Hop, Beer and Health Lectures / Poster session Farewell party
Friday 14 September 2012	Day of Departure or Post-Conference Tour

Post-Conference-tour (additional costs of 290,-€) will be organized to visit the most beautiful and interest places of the Czech Republic: Prague, Karlovy Vary (Carlsbad), Karlstejn castle, Pilsen Urquell brewery and beer museum.

Registration

On-line registration has started at 1st January 2012 on Symposium web page.

Registration Fees	before 15 th May 2012	after 15 th May 2012
ISHS-members	450,-€	500,-€
Non-ISHS-members	500,-€	550,-€
Students	225,-€	275,-€
One-day participants	150,-€	200,-€
Accompanying persons	225,-€	275,-€

For ISHS and Non-ISHS Members:

The registration fee includes participation in all scientific meetings, coffee and tea breaks during the meeting, lunches, excursions, symposium bag with book of abstracts, regional information and name badge, final program, and a copy of the Symposium Proceedings issued by ISHS (as a volume of *Acta Horticulturae*).

For Students:

The registration fee includes participation in all scientific meetings, coffee and tea breaks during the meeting, lunches, receptions, and symposium bag with book of abstracts, regional information, name badge, and final program.

For One-day Participants:

The registration fee includes participation in all scientific meetings, coffee and tea breaks during the day, lunch.

Call for oral/poster presentations

Submit an abstract for consideration as an **oral** or a **poster presentation**. Abstracts must be submitted to the Scientific Committee of the Symposium directly via e-mail to patzak@chizatec.cz as an attachment file in MS Word format thereby strictly following the guidelines provided below or through on-line Abstract submission. Please remember to indicate 'Abstract Submission' in the subject line of the e-mail. Furthermore, the abstract must be received by 1 June 2012.

Guidelines for the submission of an abstract:

1. The abstract must be written in English and should be limited to a maximum of 300 words on a single page. Use Times New Roman, size 12. Bold the title which should not be more than two lines. Title, author(s) name(s), affiliation(s) and the body of the abstract should be fully justified. Please leave one blank line below the abstract title, below the author names, and below the affiliation line..
2. Leave uniform margins of 2.5 cm or 1 inch all around the page.
3. The authors must be listed starting with author's surname followed by initials. Indicate the presenting author with an (*). Include the e-mail address of the corresponding author.
4. The abstract must include a concise statement of the research problem, specific objectives, methodology/procedures applied while conducting the research, results and discussion, a concluding statement, and few key references.
5. Indicate on top of the abstract to which Section the abstract belongs and indicate the preference for Oral or Poster presentation between brackets.
6. Abstracts will be reviewed and edited accordingly by the Symposium Scientific Committee. The corresponding authors will be duly informed on acceptance of the contribution either as an Oral or as a Poster presentation through e-mail well after the early registration deadline until 30 June 2012. The titles of accepted contributions, form of presentation (oral/poster), and appropriate section, will be posted on the Symposium website.

Guidelines for manuscript submission:

The willing authors are asked to submit full manuscripts at the conference for peer-review by the Symposium Scientific Committee. Reviewed manuscripts will be published post-conference by the ISHS in a volume of Acta Horticulturae. For publication guidelines in Acta Horticulturae, please follow the [Authors Instructions](#) available at <http://www.ishs.org/wri/pap1.htm> and, if additional information is required, please contact us immediately. Each participant paying the registration fee (except guests and students) will receive a copy of the Acta Horticulturae, the Symposium Proceedings.

Guidelines for oral presentations:

All oral presentations should use PowerPoint. No overhead projector or slide projector will be available. Presentations will be accepted only through electronic files in PowerPoint2000 or later versions of the software. Since unexpected errors may occur during the final presentation, a computer support center will be provided at the beginning of the presentation day to check the compatibility.

Guidelines for poster presentations:

There is no limit to the number of posters that an author can present. Posters will have a maximum size of about 100 cm x 120 cm (40 inches x 48 inches), portrait. It is recommended to use one complete sheet, rather than small multiple sheets for creation in situ. At the top of the poster, include the title, author name(s) and affiliations (organisation, city, country). We suggest the poster to have title letters at least 2.5 cm (1 inch) high. Lettering for the author's information (name and affiliations) may be smaller (1.25 cm or 0.5 inch). Inclusion of a recent photograph of the presenting author will help participants to identify the person to discuss their interests. The smallest lettering on the poster should be no less than 10 mm (0.4 inch) high. Illustrations should be visible from a 1 m (3 feet) viewing distance. We suggest authors bringing at least 25 small (regular-size paper) copies of the poster to hand out to interested participants. Specific instructions for poster set-up will be given in due time.

Accommodation

Reduced rates for participants of the ISHS *Humulus* 2012 Symposium

Two hotels located in the Zatec city centre have reserved a number of rooms for participants of the ISHS *Humulus* 2012 Symposium. Reservations for these hotels can be made using a reservation systems of selected hotels

Hotel Cerny orel

Kruhove namesti 233, 438 01 Zatec

Tel.: +420 602627777

Email: hotelzatec@hotelzatec.cz

Web: <http://www.hotelzatec.cz>

Double room standard: 35,-€/per person and day (breakfast included)

Double room grand: 45,-€/per person and day (breakfast included)

Hotel Zlaty lev

Obloukova 228, 438 01 Zatec

Tel.: +420 415 240 030 – 2, +420 777 800 542

Email: recepce@zlaty-lev.cz

Web: <http://www.zlaty-lev.cz>

Double room standard: 62,-€/per person and day (breakfast included)

70,-€/per 2 persons and day (breakfast included)

Double room middle: 72,-€/per person and day (breakfast included)

80,-€/per 2 persons and day (breakfast included)

Double room grand: 92,-€/per person and day (breakfast included)

100,-€/per 2 persons and day (breakfast included)

Other accommodation options

As a historical and touristic city, Zatec has also another accommodation options for all types of budget. For other hotels (both low- and high-end), we advise you to have a look at <http://www.mesto-zatec.cz/mesto-a-okoli/turistika/ubytovani-/ubytovani.html>.

Travel Information

Please note that the conference venue is located outside the city centre. Transport between the city centre hotels and the conference site will be organized. Detailed driving instructions can also be obtained using an on-line road guide such as <http://maps.google.com/maps>

By Air

Main International Airport is situated in Prague, only 80 km from Zatec and has flights from over 105 destinations, operated by more than 50 international and regional airline companies. Prague Airport is also serving low-budget companies such as Ryan Air and Wizz Air. Transport between the airport and the conference site will be organized. More information can be found on <http://www.prg.aero/en>.

By Train

The use of train is not a convenient way to travel to Zatec. Zatec is accessible by train from Prague or Pilsen, where it is possible to use international trains. The transport from the train station will be organized.

By Car

Zatec is located outside of major European highways on motorway 27 from Pilsen to Most. For Western Europe is useful highway D5 from Rozvadov to Prague and motorway 7 from Chemnitz to Prague. For Eastern Europe is useful highway D1 from Brno to Prague. Prague is also crossing city for the Southern and Northern countries. For detailed driving instructions, an on-line road guide such as <http://maps.google.com/maps> is most useful.

Sponsors

For sponsoring, please don't hesitate to contact us. We will be glad for your support. Thank you in advance.

Useful links



<http://www.chizatec.cz>



<http://www.utas.edu.au>



<http://www.czhops.cz>



<http://www.zateckychmel.cz>



<http://www.mesto-zatec.cz>



<http://chchp.cz/cz/chram-chmele-a-piva>

Please direct all questions and remarks to:

Conference secretariat:

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<http://www.chizatec.cz/en/ishs-2012/>