



Incorporating the 8th
European Fusarium Seminar

Symposium Program*

(As of 18 November, 2004)

2nd International Symposium on Fusarium Head Blight

Incorporating the 8th European Fusarium Seminar

Wyndham Orlando Resort, Orlando, FL USA

11-15 December, 2004

Friday, 10th December

7:00 p.m. – 9:00 p.m. – REGISTRATION (*Location: Jasmine/Magnolia Ballroom Foyer; outside Azalea B – Symposium Office*)

Saturday, 11th December

9:00 a.m. – 5:00 p.m. – REGISTRATION (*Location: Jasmine/Magnolia Ballroom Foyer; outside Azalea B – Symposium Office*)

9:00 a.m. – 12:45 p.m. – Authors for the following sessions set up posters:
Host Plant Resistance and Variety Development;
Genetic Engineering; and
Chemical, Cultural and Biological Control

1:00 p.m. – **Opening Remarks** (*Location: Jasmine/Magnolia Ballroom*)

Rick Ward, President of the International Organizing Committee, Michigan State University, East Lansing, MI, USA

Mike Davis, President, American Malting Barley Association, Milwaukee, Wisconsin, USA

* Invited Speakers and Oral presentations will take place in Jasmine/Magnolia Ballroom; Poster presentations will be held in the Orange/Lemon Ballroom.

Saturday, 11th December (cont.)

Opening Talk: Richard Emerson, Vice-President of Operations, Busch Agricultural Resources, Inc., St. Louis, Missouri, USA
Impact of Scab on the U.S. Malting and Brewing Industry.

SESSION 1: PLENARY (*Location: Jasmine/Magnolia Ballroom*)

CHAIRPERSON: Rick Ward, Michigan State University, East Lansing, Michigan, USA

1:30 p.m. – Bikram Gill, Kansas State University, Manhattan, Kansas, USA
Cereal Genome and Gene Space Analysis.

2:10 p.m. – H. Corby Kistler, USDA-ARS, St. Paul, Minnesota, USA
Genomics of *Fusarium graminearum*.

2:50 p.m. – Paul Nicholson, John Innes Center, Norwich, Norfolk, United Kingdom
Host-Pathogen and Pathogen-Pathogen Interactions in FHB.

3:30 p.m. – Open Discussion

3:50 – 4:10 p.m. – BREAK (*Location: Oleander A and Jasmine/Magnolia Foyer*)

4:00 – 7:15 p.m. – Host Plant Resistance and Variety Development Poster Session - **Authors are asked to be at their posters.** (*Location: Orange/Lemon Ballroom*)

6:00 – 7:15 p.m. – RECEPTION (*Location: Oleander, Oleander Foyer and Orange/Lemon Ballroom*)

7:15 p.m. – DINNER - Sponsored by Bayer CropScience (*Location: Jasmine/Magnolia Ballroom*)

Guest Speaker: Sanjaya Rajaram, ICARDA, Tlalnepantla, Mexico

Sunday, 12th December

6:15 – 8:15 a.m. – BREAKFAST – Continental Buffet (*Location: Palms Ballroom E*)

9:00 a.m. – 5:00 p.m. – REGISTRATION (*Location: Jasmine/Magnolia Ballroom Foyer; outside Azalea B – Symposium Office*)

SESSION 2: HOST PLANT RESISTANCE AND VARIETY DEVELOPMENT (*Location: Jasmine/Magnolia Ballroom*)

CHAIRPERSON: Peter Ruckebauer, University of Natural Resources and Applied Life Sciences, Vienna, Austria

Sunday, 12th December (cont.)

- 8:15 a.m. – **Plenary Talk:** Maarten van Ginkel, CIMMYT, Texcoco, Mexico; and Tomohiro Ban, CIMMYT and CIMMYT-JIRCAS, Tsukuba, Ibaraki, Japan
Global Progress in Identifying and Deploying FHB Resistance Genes.
- 8:55 a.m. – Jim Anderson, University of Minnesota, St. Paul, Minnesota, USA
Towards Map-Based Cloning of the *Qfhs.ndsu-3BS* QTL that Confers Resistance to Fusarium Head Blight in Wheat.
- 9:15 a.m. – Hirokazu Handa, National Institute of Agrobiological Sciences, Tsukuba, Ibaraki, Japan
Mapping of the FHB QTL on the Short Arm of Wheat 2D Chromosome Using the Co-Linearity between Wheat 2D and Rice Chromosomes, 4 and 7.
- 9:35 a.m. – Andy Kleinhofs, Washington State University, Pullman, Washington, USA
Genetic and Physical Mapping of the Barley Chromosome 2H Fusarium Head Blight Resistance QTL.
- 9:55 p.m. – Hermann Buerstmayr, University of Natural Resources and Applied Life Sciences, Vienna, Austria
QTLs and Markers for FHB Resistance in Wheat.
- 10:15 a.m. – BREAK (*Location: Oleander A and Jasmine/Magnolia Foyer*)
- 10:30 a.m. – Peidu Chen, Nanjing University, Nanjing, Jiangsu, China
Development and Utilization of Alien Translocation Lines for Wheat Scab Resistance Improvement
- 10:50 a.m. – Blake Cooper, Busch Agricultural Resources Inc., Fort Collins, Colorado, USA
Practical Experiences of Breeding for Lower Fusarium Head Blight and Deoxynivalenol in Malt Barley Using both Structured and Random Mating Population Breeding Methods.
- 11:10 a.m. – Daryl Somers, Agriculture and Agri-Food Canada, Winnipeg, Manitoba, Canada
Molecular Breeding of Wheat and Introgression of FHB Resistance QTLs.
- 11:30 a.m. – Akos Mesterházy, Cereal Research non-profit Company, Szeged, Hungary
Breeding Strategies and Their Results against FHB in Wheat
- 12:00 – 1:30 p.m. – LUNCH (*Location: Palms Ballroom E*)
- 1:30 p.m. – Marc Lemmens, University of Natural Resources and Applied Life Sciences, Vienna, Austria
The Role of DON-Resistance in the FHB Resistance Complex in Wheat.
- 1:50 p.m. – Mike Taylor, Limagrain-Nickerson, Peine-Rosenthal, Lower Saxony, Germany
Incorporation of Fusarium Head Blight Resistance in European Winter Wheat Breeding Programmes; a Breeder's Point of View.

Sunday, 12th December (cont.)

2:10 p.m. – Open Discussion

3:10 – 3:30 p.m. – BREAK (*Location: Oleander A and Jasmine/Magnolia Foyer*)

3:15 – 5:00 p.m. – Genetic Engineering; and Chemical, Cultural and Biological Control Poster Session - **Authors are asked to be at their posters.** (*Location: Orange/Lemon Ballroom*)

Monday, 13th December

6:30 – 8:15 a.m. – BREAKFAST – Continental Buffet (*Location: Palms Ballroom E*)

9:00 a.m. – 5:00 p.m. – REGISTRATION (*Location: Jasmine/Magnolia Ballroom Foyer; outside Azalea B – Symposium Office*)

SESSION 3: GENETIC ENGINEERING (*Location: Jasmine/Magnolia Ballroom*)

CHAIRPERSON: Kay Simmons, USDA-ARS-NPS, Beltsville, MD, USA

8:30 a.m. – **Plenary Talk:** P. Stephen Baenziger, University of Nebraska, Lincoln, Nebraska, USA

Wheat Transformation: A needed tool for Wheat Genetics and Germplasm Improvement

9:10 a.m. – Maria Somleva, USDA-ARS, Albany, California, USA

A Novel Strategy for Transgenic Control of Fusarium Head Blight in Wheat.

9:30 a.m. – Ron Skadsen, USDA-ARS, Madison, Wisconsin, USA

Development of Tissue-Specific Promoters for Targeting Anti-*Fusarium* Gene Expression.

9:50 a.m. – Jyoti Shah, Kansas State University, Manhattan, Kansas, USA

Expression of *Arabidopsis* NPR1 in Wheat Confers Resistance to Fusarium Head Blight.

10:10 a.m. – BREAK (*Location: Oleander A and Jasmine/Magnolia Foyer*)

10:30 a.m. – Marion Brodhagen, University of Wisconsin, Madison, Wisconsin, USA

Role of Dioxygenases in Fungal Sporulation.

10:50 a.m. – Gary Muehlbauer, University of Minnesota, St. Paul, Minnesota, USA

Microarray Analysis of Barley Infected with *Fusarium graminearum*.

11:10 a.m. – Open Discussion

Monday, 13th December (cont.)

11:45 – 1:00 p.m. – Lunch (*Location: Palms Ballroom E*)

SESSION 4: CHEMICAL, CULTURAL AND BIOLOGICAL CONTROL (*Location: Jasmine/Magnolia Ballroom*)

CHAIRPERSON: Marcia McMullen, North Dakota State University, Fargo, North Dakota, USA

1:00 p.m. – **Plenary Talk:** Friedrich Kerz-Möhlendick., Bayer CropScience AG, Monheim, Germany

Experience with DMI Fungicides for the Control of FHB - Efficient Use of Efficient Tools.

1:40 p.m. – Phillip Jennings, Central Science Laboratory, York, North Yorkshire, United Kingdom

Effect of Fungicide Timing and Application Rate on Control of Fusarium Head Blight.

2:00 p.m. – Ruth Dill-Macky, University of Minnesota, St. Paul, Minnesota, USA

Cultural Control Options for the Management of Fusarium Head Blight in Wheat and Barley.

2:20 p.m. – Gary Van Ee, Michigan State University, East Lansing, Michigan, USA

Significant Accomplishments and Future Endeavors in Chemical Application.

2:40 p.m. – Wilfried Hermann, University of Hohenheim, Renningen, Baden-Württemberg, Germany

Effect of Previous Crop Residues and Tillage on Fusarium Head Blight of Winter Wheat.

3:00 p.m. – **BREAK** (*Location: Oleander A and Jasmine/Magnolia Ballroom Foyer*)

3:20 p.m. - Gary Bergstrom, Cornell University, Ithaca, New York, USA

The Promise and Challenge of Employing Biological Control in the Integrated Management of Fusarium Head Blight.

3:40 p.m. – Jeannie Gilbert, Agriculture and Agri-Food Canada, Winnipeg, Manitoba, Canada

Alternative Agents and Targets for Biological Control of *Fusarium graminearum*/*Gibberella zeae*.

4:00 - 4:40 P.M. – Open Discussion

Monday, 13th December (cont.)

EXCHANGE OF POSTER DISPLAY

5:00 – 6:00 p.m. – VDUN Authors remove their posters from the poster exhibit.

6:00 p.m. – 8:00 a.m. (Tuesday) – Authors for the following sessions set up posters:
Food Safety, Toxicology and Utilization of Mycotoxin-Contaminated Grain;
Pathogenesis, Epidemiology, and Disease Forecasting; and
Taxonomy, Population Genetics and Genomics of *Fusarium* spp.

Tuesday, 14th December

6:15 – 8:00 a.m. – BREAKFAST – Continental Buffet (*Location: Palms Ballroom E*)

9:00 a.m. – 5:00 p.m. – REGISTRATION (*Location: Jasmine/Magnolia Ballroom Foyer; outside Azalea B – Symposium Office*)

SESSION 5: FOOD SAFETY, TOXICOLOGY, AND UTILIZATION OF MYCOTOXIN-CONTAMINATED GRAIN (*Location: Jasmine/Magnolia Ballroom*)

CHAIRPERSON: Stephen Neate, North Dakota State University, Fargo, North Dakota, USA

8:00 a.m. – **Plenary Talk:** Hans van Egmond, National Institute of Public Health and the Environment, Bilthoven, NL, The Netherlands
Fusarium Toxins; Evolvement of Regulations and Worldwide Limits.

8:40 a.m. – Jim Pestka, Michigan State University, East Lansing, Michigan, USA
Adverse Health Effects of Trichothecene Mycotoxins.

9:00 a.m. – Antonio Logrieco, Institute of Sciences of Food Production (ISPA), Bari, Italy
Beauvericin and Enniatins in *Fusarium* Head Blight Grains.

9:20 a.m. – Open Discussion

10:00 – 10:15 a.m. – BREAK (*Location: Oleander A and Jasmine/Magnolia Ballroom Foyer*)

10:10 a.m.-12:00 p.m. – Food Safety, Toxicology, and Utilization of Mycotoxin-Contaminated Grain; and Pathogenesis, Epidemiology, and Disease Forecasting
Poster Sessions - **Authors are asked to be at their posters.**
(*Location: Orange/Lemon Ballroom*)

12:00 – 1:15 p.m. – LUNCH (*Location: Palms Ballroom E*)

Tuesday, 14th December (cont.)

**SESSION 6: PATHOGENESIS, EPIDEMIOLOGY, AND DISEASE
FORECASTING** (*Location: Jasmine/Magnolia Ballroom*)

**CHAIRPERSON: Thomas Miedaner, University of Hohenheim, Stuttgart,
Germany**

- 1:15 p.m. – **Plenary Talk:** Art Schaafsma, University of Guelph, Ridgetown, Ontario, Canada
Approaches to Using Epidemiological Knowledge in the Management of
Fusarium Head Blight in Wheat.
- 1:55 p.m. – Theo van der Lee, Plant Research International, Wageningen, The Netherlands
FusariumScreen™, A Sensitive, Realtime and Non-Destructive Monitoring Tool
for Fusarium Infection in Cereals.
- 2:15 p.m. – Heinrich Buchenauer, University of Hohenheim, Stuttgart, Germany
Ultrastructural Studies on Infection Process of Fusarium Head Blight in
Susceptible and Resistant Wheat Genotypes.
- 2:35 p.m. – Petr Karlovsky, University of Goettingen, Goettingen, Germany
Application of Real-Time PCR in the Epidemiology of Fusarium Head Blight.
- 2:55 p.m. – Naresh Magan, Cranfield University, Silsoe, United Kingdom
Environment and Interactions with other Fungi on Growth and DON Production
by *F. culmorum* and *F. graminearum*.
- 3:15 p.m. – BREAK (*Location: Oleander A and Jasmine/Magnolia Foyer*)
- 3:35 p.m. – Wilhelm Schaefer, University of Hamburg, Hamburg, Germany
Pathogenicity Determinants of *Fusarium graminearum*.
- 3:55 p.m. – Larry Madden, Ohio State University, Wooster, Ohio, USA
Developing Forecasting Systems for Fusarium Head Blight.
- 4:15 – 5:00 p.m. – Open Discussion

Wednesday, 15th December

6:15 – 8:00 a.m. – BREAKFAST – Continental Buffet (*Location: Palms Ballroom E*)

Wednesday, 15th December (cont.)

SESSION 7: TAXONOMY, POPULATION GENETICS, AND GENOMICS OF *FUSARIUM* SPP. (Location: Jasmine/Magnolia Ballroom)

CHAIRPERSON: John Leslie, Kansas State University, Manhattan, KS, USA

7:45-8:30 a.m. – Taxonomy, Population Genetics, and Genomics of *Fusarium spp.* Poster Session - **Authors are asked to be at their posters.** (Location: Orange/Lemon Ballroom)

8:30 a.m. – **Plenary Talk:** Frances Trail, Michigan State University, East Lansing, Michigan, USA
Using Genomics to Understand the Life Cycle of *Gibberella zeae*.

9:10 a.m. – Ulrich Gueldener, Munich Information Center for Protein Sequences (MIPS), Neuherberg, Germany
Development of an Affymetrix GeneChip Microarray using the GEN-AU / MIPS *Fusarium graminearum* Genome Database.

9:30 a.m. – Todd Ward, USDA-ARS, Peoria, Illinois, USA
An Evolutionary Framework for Tackling Fusarium Head Blight: Species Recognition, Toxin Evolution, and Biogeography of the *Fusarium graminearum* Species Complex.

9:50 a.m. – Cees Waalwijk, Plant Research International, Wageningen, The Netherlands
GECCO: A Bioinformatics Tool for Comparative Analysis of Fungal Genomes.

10:10 a.m. – BREAK (Location: Oleander A and Jasmine/Magnolia Foyer)

10:30 a.m. – Gerhard Adam, University of Natural Resources and Applied Life Sciences, Vienna, Austria
Fusarium Genomics Activities in the Austrian Genome Programme GEN-AU

10:50 a.m. – Robert Bowden, USDA-ARS, Manhattan, Kansas, USA
Genetic mapping in *Gibberella zeae*.

11:10 a.m. – Thomas Miedaner, University of Hohenheim, Stuttgart, Germany
Molecular and Phenotypic Diversity within and among Populations of *Fusarium graminearum*.

11:30 – Open Discussion

12:05 – Closing Remarks

12:10 – Symposium Adjourns