

EUCARPIA Cereals Section Wrocław University of Environment and Life Sciences International Conference on Rye Breeding and Genetics 24<sup>th</sup> - 26<sup>th</sup> June 2015, Wrocław, Poland



## **FINAL PROGRAMME**

# Tuesday, 23<sup>th</sup> June 2015

- From 16.00 Arrival, Hotels: Jan Paweł II, Wrocław, 2 Św. Idziego St. or DS Labirynt, ul. Sopocka 23 or DS Raj ul. Pautscha 5/7
- 18.00 19.00 Participant registration (Jan Paweł II Hotel)
- 19:00 Dinner & welcome meeting (Jan Paweł II Hotel)

# Wednesday, 24<sup>th</sup> June 2015

Conference at Wrocław University of Environmental and Life Sciences, 24A Pl. Grunwaldzki

- 8.30 9.00 Participant registration
- 9:00 Addresses of Welcome Welcome by Wrocław University of Environmental and Life Sciences authorities Presentation of information about city of Wrocław
- 9:30 Welcome of the head of EUCARPIA Cereal Section, A. Börner, Gatersleben, Germany
- 9:40 Lucjan Madej: A personal reminiscence by J. Zimny, IHAR Radzikow, Poland

## Session 1: Thirty years of hybrid rye cultivars

Chair: H.H. Geiger, University of Hohenheim, Germany

- 9:50 T. Miedaner, University of Hohenheim, Germany From phenotype to genomics (and back) - Breeding research in the last three decades
- 10:20 P. Wilde, KWS, Bergen, Germany Genetic gain from hybrid rye breeding: achievements and challenges

### 10:50 - 11:20 Coffee & Tea Break

### Session 2: General breeding methods

Chair: P. Wilde, KWS LOCHOW GMBH, Bergen, Germany

- 11:20 J. Larsen, Lethbridge Research Centre, Lethbridge, Canada
  Historical, current and potential future trends for rye production and breeding in
  Canada
- M. Pomomareva, Tatar Research Institute of Agriculture, Kazan, Russia
  A.A Goncharenko, Agricultural Research Institute of Central Region Non-Chernozem
  Zone, Nemchinovka, Russia
  Breeding progress and trends of winter rye yield in Central Russia
- 12:15 Z. Banaszak, Danko, Poland Rye varieties in Poland
- 12:35 E. Urban, I. Hardzei, SPCAF, Minsk, Belarus Breeding trends and cultivation of rye in Belarus



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### 13:00 - 14:00 Lunch at the University

### Session 3: Genomic prediction and selection

- Chair: M. Sorrells, Cornell University Ithaca, USA
- 14:00 M. Sorrells, Cornell University Ithaca, USA Genomic Selection in Plants: Training Population Design and GxE
- 14:30 M. Schönleben, TUM Munich, Germany Genomic prediction across breeding cycles in rye
- 15:00 K. Schmid, University of Hohenheim, Germany
  RYE-Select: Genomic differentiation and artificial selection in the two German rye
  (Secale cereale) breeding pools
- 15:20 Y. Wang, Univ. Hohenheim/IPK Gatersleben, Germany Genome-wide prediction of testcross performance and phenotypic stability for important agronomic and quality traits in elite hybrid rye

#### 15:40 – 16:10 Coffee & Tea Break

### Session 4: Emerging molecular tools

- Chair: P. Masojc, West Pomeranian University of Technology, Szczecin, Poland
- 16:10 E. Bauer, TUM, Freising, Germany Rye – Don't be afraid of an 8 gigabase genome jigsaw
- 16:40 B. Hackauf, Julius-Kühn-Institute, Groß Lüsewitz, Germany
  Approaching complex traits in the rye genome by association mapping and comparative genomics
- 17:10 V. Korzun, KWS LOCHOW GMBH, Germany Genomics and molecular breeding in rye - Current view and future development
- 17.30 P. Masojć. West Pomeranian University of Technology, Szczecin, Poland
  Bidirectional selective genotyping a method to reveal molecular mechanisms
  underlying preharvest sprouting in rye
- 17.50 S. Stojałowski, West Pomeranian University of Technology, Szczecin, Poland Towards localization of restorer genes for the C source of cytoplasmic male sterility in rye
- 18.10 J. Zimny, IHAR Radzikow, Poland Androgenesis in rye
- 18:30 End of the first day
- 19:30 Gala dinner



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# Thursday, 25<sup>th</sup> June 2015

Conference at Wrocław University of Environmental and Life Sciences, 24A Pl. Grunwaldzki

### Session 5: Use of genetic resources and cytogenetics

Chair: A. Börner, IPK Gatersleben, Germany

- P. Dopierała, KWS LOCHOW POLSKA, Kondratowice, Poland 9:00 Use of inbred lines from ancient Polish population varieties to broaden genetic diversity for hybrid rye breeding
- A. Houben, IPK Gatersleben, Germany 9:20 Origin and regulation of rye B chromosomes
- 9:50 A. Lukaszewski, Univ. California, Riverside, USA Introgressions from wheat to rye
- 10:20 E. Gacek, COBORU Słupia Wielka, Poland Legal bases and new trends in DUS testing in cereals
- 10:50 11:20 Coffee & Tea Break

### Session 6: Disease resistance and tolerance to abiotic stresses

- Chair: T. Miedaner, Univ. Hohenheim, Germany
- 11:20 K. Flath, Julius-Kühn-Institute, Kleinmachnow, Germany Pathosystem analyses of rye/leaf rust and stem rust populations
- 11:50 B. Fowler, Univ. Saskatchewan, Canada Breeding for frost tolerance in rye
- M. Rakoczy-Trojanowska, Warsaw University of Life Sciences, Poland 12:20 Association analysis of benzoxazinoid-related traits in rye
- 12:40 A. Gordillo, KWS LOCHOW GMBH, Germany Evaluation of backcross progenies followed by molecular breeding approaches to develop rye hybrids adapted to new environments
- 13:00 14:00 Lunch
- 14:00 15:00 Poster session & discussion



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## Session 7: Nutritional and technological quality

Chair: H. Bujak, Wrocław University of Environment and Life Sciences, Poland

Keynote speakers:

- 15:00 D. Boros, IHAR Radzikow, Poland European rye for enhanced food and feed
- V. Kobylianskii and O. Soloduchina, VIR, St. Petersburg Russia 15:30 Rye breeding for low water soluble pentosans and possibility of its use in animal feeding

**16:00** Closing Session (New location for next meeting in 2020 etc.)

- 16:30 18.30 Wrocław Sightseeing Tour
- 19:00 Dinner & social meeting in a restaurant

# Friday, 26<sup>th</sup> June 2015

A coach trip to the Breeding Station KWS LOCHOW POLSKA to Kondratowice

- 8:15 Meeting in the hotel lobby (Jan Paweł II Hotel) 8:30 - 9:30 Transfer to Kondratowice 9:30 - 10:15 Welcome in KWS LOCHOW POLSKA company Presentation KWS CEREALS activities in Poland Presentation of rye breeding work of KWS LOCHOW in Poland 10:15 – 10:45 Coffee & Tea Break 10:45 – 12:15 Tour on the breeding fields and facilities in Kondratowice 12:15 – 13:00 Rye Belt activities presentation 13.00 – 14:00 Lunch in Kondratowice
- From 14:00 Departure of participants