

FROM SEED TO PASTA 5

A SUSTAINABLE DURUM WHEAT CHAIN FOR FOOD SECURITY AND HEALTHY LIVES

BARI - ITALY, 24-27 SEPTEMBER 2025



Chairs

AGATA GADALETA
University of Bari, Italy

ROBERTO TUBEROSA
University of Bologna, Italy

PROGRAM

www.fromseedtopasta.com

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International Conference
FROM SEED TO PASTA 5
Bari - Italy, 24-27 September 2025

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International Conference **FROM SEED TO PASTA 5** Bari - Italy, 24-27 September 2025

PROGRAM

WEDNESDAY, 24 SEPTEMBER 2025

ROOM AMBROSI

08:00-08:30 Registration of participants

08:30-09:10

WELCOME ADDRESSES

Chairs: Agata Gadaleta - *University of Bari, Italy*;
Roberto Tuberosa - *University of Bologna, Italy*

- Maria De Angelis - *Director DISSPA, University of Bari*
- CREA Representative
- CNR Representative
- Stefania Masci - *University of Tuscia, President of SIGA*

09:10-13:00

Session 1

SETTING THE FSTP5 SCENE FOR WHEAT BREEDING 5.0

09:10-09:20

Title to be announced

Maurizio Martina - *FAO Deputy Director General* - **online**

09:20-09:40

Durum wheat role in the Global Drylands Strategy for ICARDA

Augusto Becerra - *ICARDA Deputy Director General Research, Rabat, Morocco*

09:40-09:50

Advancing Mediterranean Agriculture: PRIMA's vision, projects, and opportunities

Ali Rhouma - *PRIMA Foundation, Tunisia Agriculture Ministry* - **online**

09:50-10:10

The tetraploid wheat genetic resources for better bridging durum and bread wheat genomics and breeding

Marco Maccaferri - *University of Bologna, Italy*

10:10-10:30

Svevo reference genome 2.0: a comprehensive tool for durum wheat genomics and breeding

Luigi Cattivelli - *CREA, Genomic and Bioinformatics, Italy*

10:30-10:50

Multi-omic strategies for durum wheat improvement

Curtis Pozniak - *University of Saskatchewan, Canada*

10:50-11:20

Coffee break



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11:20-11:40	Artificial intelligence and machine learning method: enhance prediction accuracy of durum wheat traits José Crossa - <i>CIMMYT, Mexico</i> - online
11:40-12:00	Integrating molecular tools into durum wheat breeding for enhanced crop performance Susanne Dreisigacker - <i>CIMMYT, Mexico</i>
12:00-12:30	Q&A and discussion with the speakers
12:30-13:00	Short presentations selected from Abstracts
13:00-14:00	<i>Lunch</i>
14:00-17:00	Session 2 AGRONOMY, PHYSIOLOGY AND MODELING OF YIELD POTENTIAL TO ENHANCE THE SUSTAINABILITY OF DURUM WHEAT Chairs: Zina Flagella - <i>University of Foggia, Italy</i> ; Nicola Pecchioni - <i>CREA Foggia, Italy</i>
	<i>Invited presentations</i>
14:00-14:20	The transition of durum wheat cultivation from conventional to conservation tillage in Mediterranean conditions Michele Pisante - <i>University of Teramo, Italy</i>
14:20-14:40	Durum wheat spike traits for improving yield potential Nicola Pecchioni - <i>CREA, Cereal and Industrial Crops, Italy</i>
14:40-15:00	Yield potential and adaptation to stress are not mutually exclusive José Luis Araus - <i>University of Barcelona, Spain</i> - online
15:00-15:20	Lessons from global Genotype x Environment x Management (GxExM) systems research to enhance the durum wheat value chain Brian Beres - <i>Agrifood, Alberta, Canada</i> - online
15:20-16:00	Q&A and discussion with the speakers
16:00-16:30	<i>Coffee break</i>
16:30-17:00	Short presentations selected from Abstracts
17:00-19:00	INNOVAR & WHEAT SECURITY Chairs: Fiona Doohan - <i>University of Dublin, Ireland</i> ; Filippo Bassi - <i>ICARDA, Morocco</i>



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THURSDAY, 25 SEPTEMBER 2025

ROOM AMBROSI

08:30-10:35

Session 3

GENETIC RESOURCES IN TETRAPLOID WHEAT TO BETTER BRIDGE DURUM AND BREAD WHEAT

Chairs: Marco Maccaferri, *University of Bologna, Italy*;
Elisabetta Mazzucotelli, *CREA, Genomics and Bioinformatics, Italy*

Invited presentations

08:30-08:45

Transfer and characterization of wild relative introgressions into durum wheat

Julie King - *BBSRC Wheat Research Centre, Nottingham, United Kingdom*

08:45-09:00

Wheat history revealed: insights from ancient grains of southern Israel

Assaf Distelfeld - *Institute of Evolution, Haifa, Israel*

09:00-09:12

Gene bank genomics of *Aegilops* supports introgression breeding of wheat

István Molnár - *Hungarian Academy of Sciences, Budapest, Hungary*

09:12-09:24

Unleashing the potential of tetraploid relatives: from core collections to QTL for introgression breeding

Elisabetta Mazzucotelli - *CREA, Genomics and Bioinformatics, Italy*

09:24-09:36

Resistance to rust diseases in tetraploid wheats

Pablo Olivera - *USDA-ARS, St. Paul, USA* - [online](#)

09:36-09:48

Genomic breeding for dryland durum at ICARDA

Filippo Bassi - *ICARDA, Rabat, Morocco*

09:48-10:00

Holistic approach to develop drought-tolerance of durum wheat

Andrés Schwember - *Pontificia Universidad Catolica, Santiago, Chile*

10:00-10:12

New soft spring durum variety release USDA 'Morris' brings novel milling and baking traits from farm to table

Jeffrey Boehm - *USDA, Lincoln NE, USA*

10:12-10:24

Genetic architecture of winter survival in the Global Durum Panel

Ahmad Sallam - *USDA-ARS, St. Paul, USA*

10:25-10:40

Coffee break



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10:40-11:05

INNOVATIVE APPROACHES FROM THE TECHNICAL INDUSTRIES

Moderator: Roberto Ranieri - Open Fields, Parma, Italy

- **The Strategic Role of Pro-Fume® in Integrated Pest Management for the Milling Sector**

Alexander Stock - Douglas Products and Colkim

- Title and speaker to be announced
Anton Paar

- Title and speaker to be announced
Mouse & CO

11:05-13:15

SPECIAL SESSION “INNOVATIVE APPROACHES FROM THE INDUSTRY”

Honorary chair: Paolo De Castro – Economist, Expert of European Policies

Moderator: Roberto Ranieri - Open Fields, Parma, Italy

11:05-11:20

Opening lecture

Mediterranean diet: a worldwide Italian excellence

Paolo De Castro - Economist, expert of European policies

11:20-11:35

Worldwide pasta business overview

Margherita Mastromauro - President of the Italia Pasta Makers, Italy

11:35-12:00

AltoGrano: a breakthrough in the milling industry

Marcello Miani and Graziano Stasi - Molino Casillo, Bari, Italy

12:00-12:15

Stra Pasta: durum wheat pasta with 19% of protein and 12% of fiber

Emidio Mansi - Pastificio Lucio Garofalo, Gragnano, Italy

12:15-12:30

Innovative approaches to make pasta and filled pasta with durum wheat and other raw materials

Renato Dall'Agata and Alessio Marchesani - Fava-Storci, Cento, Italy

12:30-12:45

End products from the new perennial grain Kernza developed from intermediate wheatgrass, and looking ahead to a perennial durum-wheatgrass hybrid

Timothy Crews - The Land Institute, Salina, Kansas USA

12.45-13.00

Operative millers: how to manage high innovation and future

Lorenzo Cavalli – President Italian Association of Operative Millers – Antim



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13:00-13:10	Open Discussion
13:10-14:10	<i>Lunch</i>
14:10-16:10	ROUND TABLE WITH DURUM WHEAT AND PASTA STAKEHOLDERS Moderators: Silvia Giuliani - <i>Assosementi, Bologna, Italy</i> ; Roberto Ranieri - <i>Open Fields, Parma, Italy</i> • Maria Caboni - <i>University of Bologna, Italy</i> • Stefano Ravaglia - <i>Società Italiana Sementi, Italy</i> • Andrea Massi - <i>Produttori Sementi Bologna, Italy</i> • Oriana Porfiri - <i>CGS Sementi, Italy</i> • Pierre Devaux - <i>Florimond Desprez, France</i> • Casillo Company, Italy (<i>TBD</i>) • Divella Pasta Company, Italy (<i>TBD</i>)
16:10-16:40	Short presentations selected from Abstracts about Pasta Quality
16:40-17:00	<i>Coffee break</i>
17:00-17:30	Presentation of the commemorative stamp on Nazareno Strampelli Roberto Tuberosa - <i>DISTAL University of Bologna, Italy</i>
17:30-19:00	CARLOTTA AWARD Chairs: Patrizia Galeffi; Giuseppina del Signore - <i>ENEA, Rome, Italy</i>
17:00-17:15	Open Session: Welcome and Acknowledgements
	THEMATIC AREA A
17:15-17:25	Epigenetics as a new frontier for wheat improvement Philippa Borrill - <i>John Innes Centre, UK</i>
17:25-17:35	Genotyping-by-sequencing uncovers a Thinopyrum 4StS-1JvsS Robertsonian translocation linked to multiple stress tolerances in bread wheat Klaudia Kruppa - <i>Biological Resources Dpt., Agriculture Institute, Hungary</i>
17:35-17:45	Special Mention A - Title to be defined Veronica Guwela - <i>CIMMYT, Mexico</i>



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THEMATIC AREA B

17:45-17:55	Mutagenesis-driven modulation of the carotenoid pathway in durum wheat: nutritional gains and pleiotropic effects Samuela Palombieri - Tuscia University, Italy
17:55-18:05	CRISPR-based editing of the ω- and γ-gliadin gene clusters reduces wheat immunoreactivity without affecting grain protein quality Yu Zitong - Plant Pathology Dpt., Kansas State University, USA
18:05-18:15	Special Mention B Complementing wheat with underutilized grains: A closer look at ancient grains and intermediate wheatgrass in food applications Maneka Malalgoda - Manitoba University, Canada
18:15-18:30	AWARD CEREMONY

FRIDAY, 26 SEPTEMBER 2025

ROOM AMBROSI

08:30-10:30	Session 4 BREEDING DURUM WHEAT UNDER CLIMATE CHANGE: PROGRESS AND CHALLENGES <i>Session dedicated to the memory of Gian Tommaso Scarascia Mugnozza</i> Chairs: Antonio Blanco - University of Bari, Italy; Stefania Masci - University of Tuscia, Viterbo, Italy
08:30-08:50	Commemoration of Gian Tommaso Scarascia Mugnozza and his research activities Antonio Blanco - University of Bari, Italy
08:50-09:10	Feeding the World through Science: The life and work of Gian Tommaso Scarascia Mugnozza Antonio Bonatesta - University of Bari, Italy
09:10-09:20	Durum Wheat Research at the University of Tuscia: From Creso to Climate Resilience Stefania Masci - University of Tuscia, Viterbo, Italy
09:20-09:30	Gian Tommaso Scarascia Mugnozza and the Green Revolution Roberto Tuberosa - University of Bologna, Italy



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09:30-09:50	Mediterranean durum wheat in a warming climate: optimizing alleles, phenology, and sowing windows Pasquale De Vita - <i>CREA, Sezione Cerealicoltura, Foggia, Italy</i>
09:50-10:05	Improving durum wheat resilience to climate change: balancing between accelerating genetic gains and relevance to main production environments Karim Ammar - <i>CIMMYT, Mexico</i>
10:05-10:20	Genomic breeding for heat tolerance at ICARDA Hafssa Kabbaj - <i>ICARDA, Rabat, Morocco</i>
10:20-10:30	Conclusions Enrico Porceddu - <i>University of Tuscia, Viterbo, Italy</i>
	AWARD IN MEMORY OF GIAN TOMMASO SCARASCIA MUGNOZZA
10:30-11:00	<i>Coffee break & Posters vision</i>
11:00-13:00	Session 5 BREEDING FOR DISEASE RESISTANCE/TOLERANCE IN DURUM WHEAT Chairs: Valentyna Klymiuk - <i>University of Saskatchewan, Canada</i> ; Fiona Doohan - <i>University of Dublin, Ireland</i>
11:00-11:20	Pre-breeding for disease resistance in durum Valentyna Klymiuk - <i>University of Saskatchewan, Canada</i>
11:20-11:40	The long road to Fusarium Head Blight resistance in durum wheat Barbara Steiner - <i>BOKU University, Vienna, Austria</i>
11:40-12:00	Genetics of FHB resistance in barley using a single plant-omics approach: a model for wheat Gurcharn Singh Brar - <i>University of Alberta, Canada</i>
12:00-12:20	The evolutionary battle between <i>Stb</i> resistance genes and <i>Septoria tritici</i> blotch across bread and durum wheats Marcel Thierry - <i>INRAE, Palaiseau, France</i>
12:20-12:40	Genetic dissection of resistance to major diseases and insects in cultivated emmer wheat Steven Xu - <i>USDA, Albany, USA</i>



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12:40-13:00	Short presentations selected from Abstracts
13:00-14:00	<i>Lunch</i>
14:00-15:30	Session 6 QTLOME, CANDIDATE GENES AND EDITING OF THE DURUM WHEAT GENOME Chairs: Roberto Tuberosa - <i>University of Bologna, Italy</i> ; Anna Maria Mastrangelo - <i>CREA, Cereal and Industrial Crops, Italy</i>
14:00-14:15	The durum wheat germplasm panels and genome as resources to unveil the genetic bases of agronomic traits under conservative agriculture Anna Maria Mastrangelo - <i>CREA, Foggia, Italy</i>
14:15-14:30	Three candidate genes in 60 Kb: which one is responsible for leaf rust resistance in <i>T. dicoccum</i>? Francesca Desiderio - <i>CREA, Fiorenzuola D'Arda, Italy</i>
14:30-14:45	Characterization of the <i>Sbm2</i> QTL, a major QTL for resistance to soil borne cereal mosaic virus (SBCMV) in durum wheat Matteo Bozzoli - <i>DISTAL, University of Bologna, Italy</i>
14:45-15:00	Enhancing durum wheat seed quality and safety through CRISPR gene editing Francesco Camerlengo - <i>DISTAL, University of Bologna, Italy</i>
15:00-15:30	Q&A and discussion with the speakers
15:30-17:00	Session 7 QUALITY AND FUNCTIONAL FOODS TRACEABILITY IN THE DURUM WHEAT CHAIN Chairs: Agata Gadaleta - <i>University of Bari, Italy</i> ; Stefania Masci - <i>University of Tuscia, Viterbo, Italy</i>
	<i>Invited presentations</i>
15:30-15:45	Development of new wheat-derived foods of the Mediterranean diet with improved nutritional and health value Francesco Sestili - <i>University of Tuscia, Viterbo, Italy</i>
15:45-16:00	The expression of the <i>CsIF6</i> gene in wheat: a beta-glucan biosynthesis prospective Ilaria Marcotuli - <i>University of Bari, Italy</i>



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16:00-16:15	Genetic variation in semolina yellow colour-associated genes within the Global Durum Panel Carlos Guzman - <i>University of Cordoba, Spain</i>
16:15-16:30	Short presentations selected from Abstracts of Sessions 6 & 7
16:30-17:00	<i>Coffee break & Posters vision</i>
17:00-19:45	Session 8 DECODING AND LEVERAGING THE DURUM WHEAT PANGENOME Chairs: Marco Maccaferri, <i>University of Bologna, Italy</i> ; Curtis Pozniak - <i>University of Saskatchewan, Canada</i>
17:00-17:20	Landscape of structural variation in the wheat genome: functional and phenotypic consequences Eduard Akhunov - <i>Department of Agronomy, Kansas State University, USA</i>
17:20-17:40	Uncovering hidden diversity in wheat genomes through k-mer-based analyses Simon Krattinger - <i>KAUST, Thuwal, Saudi Arabia</i>
17:40-18:00	Inflorescence architecture and its relevance for sink capacity Thorsten Schnurbush - <i>IPK, Gatersleben, Germany</i>
18:00-18:20	Decoding and leveraging the durum wheat pangenome Cristian Forestan - <i>University of Bologna, Italy</i>
18:20-18:50	Improving wheat productivity: stories from the source and the sink sides Jorge Dubcovsky - <i>University of California, Davis, USA</i>
18:50-19:10	Closing remarks Agata Gadaleta - <i>University of Bari, Italy</i> ; Roberto Tuberosa - <i>University of Bologna, Italy</i>
20:00-23:00	Social Dinner



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SATURDAY, 27 SEPTEMBER 2025

ROOM AMBROSI

09:00-11:30

EWG durum wheat

11:30-12:00

Coffee break and Posters vision

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