

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

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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 1

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*

- Paolo De Castro - *Economist, expert of European policies*
- *Rector of University of Bari*
- 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
Martina Maurizio - *FAO Deputy Director-General*

09:20-09:40

Durum wheat role in the Global Drylands Strategy for ICARDA
Augusto Becerra, *Deputy Director General - Research of ICARDA, Rabat, Morocco*

09:40-09:50

Advancing Mediterranean Agriculture: PRIMA's vision, projects, and opportunities
Ali Rhouma - *PRIMA Foundation, Tunisia Agriculture Ministry*

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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WEDNESDAY, 24 SEPTEMBER 2025

11:20-11:40	Artificial intelligence and machine learning method: enhance prediction accuracy of durum wheat traits José Crossa - <i>CIMMYT, Mexico</i>
11:40-12:00	<i>Title and speaker to be defined</i>
12:00-13:00	Q&A and discussion with the speakers
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>
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>
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>
19:00 -20:00	<i>Welcome Cocktail</i>



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THURSDAY, 25 SEPTEMBER 2025

ROOM 1

08:30-11:00

Session 3

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

Chairs: Carla Ceoloni, *University of Tuscia, Viterbo, Italy*; Marco Maccaferri, *University of Bologna, Italy*

Invited presentations

- 08:30-08:50 **Transfer and characterization of wild relative introgressions into durum wheat**
Julie King - *BBSRC Wheat Research Centre, Nottingham, United Kingdom*
- 08:50-09:20 **Wheat history revealed: insights from ancient grains of southern Israel**
Assaf Distelfeld - *Institute of Evolution, Haifa, Israel*
- 09:20-09:35 **Gene bank genomics of *Aegilops* supports introgression breeding of wheat**
István Molnár - *Hungarian Academy of Sciences, Budapest, Hungary*
- 09:35-09:50 **Unleashing the potential of tetraploid relatives: from core collections to QTL for introgression breeding**
Elisabetta Mazzucotelli - *CREA, Genomics and Bioinformatics, Italy*
- 09:50-10:05 **Resistance to rust diseases in tetraploid wheats**
Pablo Olivera - *USDA-ARS, St. Paul, USA*
- 10:05-10:20 **Genetic architecture of winter survival in the Global Durum Panel**
Ahmad Sallam - *USDA-ARS, St. Paul, USA*
- 10:20-11:00 *Coffee break*
- Invited presentations*
- 11:00-11:15 **Priority actions for Fusarium head blight resistance in durum wheat: insights from the Wheat Initiative**
Ambra Viviani - *DISTAL, University of Bologna, Italy*
- 11:15-11:30 **Genomic breeding for dryland durum at ICARDA**
Filippo Bassi - *ICARDA, Rabat, Morocco*
- 11:30-11:45 **New soft spring durum variety release USDA 'Morris' brings novel milling and baking traits from farm to table**
Jeffrey Boehm - *USDA, Lincoln NE, USA*



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11:45-12:00	Holistic approach to develop drought-tolerance of durum wheat Andrés Schwember - <i>Pontificia Universidad Catolica, Santiago, Chile</i>
12:00-12:30	Short presentations selected from Posters
12:30-13:00	Q&A and discussion with the speakers
13:00-14:00	<i>Lunch</i>
14:00-17:30	Session 4 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, 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>
15:00-15:40	Q&A and discussion with the speakers
15:40-16:00	Short presentations selected from Abstracts
16:00-16:30	<i>Coffee break</i>
16:30-16:50	Presentation by FAO representative <i>Title and speaker to be announced</i>
16:50-19:00	CARLOTTA AWARD Chairs: Patrizia Galeffi; Giuseppina del Signore - <i>ENEA, Roma, Italy</i>



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FRIDAY, 26 SEPTEMBER 2025

ROOM 1

08:30-10:20

Session 5

BREEDING DURUM WHEAT UNDER CLIMATE CHANGE: PROGRESS AND CHALLENGES

Session dedicated to the memory of Gian Tommaso Scarascia Mugnozza

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

Gian Tommaso Scarascia Mugnozza and the SIGA

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*

09:30-09:50

Mediterranean durum wheat in a warming climate: optimizing alleles, phenology, and sowing windows

Pasquale De Vita - *CREA, Sezione Cerealicoltura, Foggia, Italy*

09:50-10:05

Improving durum wheat's resilience to climate change: balancing between accelerating genetic gains and relevance to main production environments

Karim Ammar - *CIMMYT, Mexico*

10:05-10:20

Genomic breeding for heat tolerance at ICARDA

Hafssa Kabbaj - *ICARDA, Rabat, Morocco*

10:20-10:30

Conclusions

Enrico Porceddu - *University of Tuscia, Viterbo, Italy*

AWARD IN MEMORY OF GIAN TOMMASO SCARASCIA MUGNOZZA

10:30-11:00

Coffee break & Posters vision

11:00-13:00

Session 6

BREEDING FOR DISEASE RESISTANCE/TOLERANCE IN DURUM WHEAT

Chairs: Valentyna Klymiuk - *University of Saskatchewan, Canada*;

Fiona Doohan - *University of Dublin, Ireland*

11:00-11:20

Pre-breeding for disease resistance in durum

Valentyna Klymiuk - *University of Saskatchewan, Canada*

11:20-11:40

The long road to Fusarium Head Blight resistance in durum wheat

Barbara Steiner - *BOKU University, Vienna, Austria*



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11:40-12:00	Utilizing resistance alleles from wheat relatives to build stripe rust resistance in Canadian hard red spring wheat Canada 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, France</i>
12:20-12:40	Genetic dissection of resistance to major diseases and insects in cultivated emmer wheat Steven Xu - <i>USDA, Albany, CA, USA</i>
12:40-13:00	Short presentations selected from Abstracts

ROOM 2 – PARALLEL SECTION

10.30 – 12.45 **INNOVATIVE APPROACHES FROM THE INDUSTRY*** (*Italian language)

Moderator: Roberto Ranieri – Open Fields, Parma, Italy

10:30-10:50	Worldwide pasta business overview Margherita Mastromauro – <i>President of the Italia Pasta Makers, Italy</i>
10:50-11:10	AltoGrano: a breakthrough in the milling industry Marcello Miani and Graziano Stasi - <i>Molino Casillo, Bari, Italy</i>
11:10-11:30	Stra Pasta: durum wheat pasta with 19% of protein and 12% of fiber Emidio Mansi – <i>Pastificio Lucio Garofalo, Gragnano, Italy</i>
11:30-11:50	Innovative approaches to make pasta and filled pasta with durum wheat and other raw materials Renato Dall'Agata and Alessio Marchesani - <i>Fava-Storci, Cento, Italy</i>
11:50-12:10	End products from a new perennial grain Kernza developed from intermediate wheatgrass, and looking ahead to a perennial durum-wheatgrass hybrid Timothy Crews - <i>The Land Institute, Salina, Kansas USA</i>
12:10-12:45	Open Discussion
13:00-14:00	<i>Lunch</i>
14:00-15:30	Round Table - See the program in ROOM 1



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ROOM 1

14:00-15:30

ROUND TABLE WITH STAKEHOLDERS

Moderators: *Silvia Giuliani - Assosementi, Bologna, Italy;*

Roberto Ranieri - Open Fields, Parma, Italy

Stakeholders:

- Maria Caboni - *University of Bologna, Italy*
- Stefano Ravaglia - *Società Italiana Sementi, Italy*
- Andrea Massi - *Produttori Sementi Bologna, Italy*
- Oriana Porfiri - *CGS Sementi, Italy*
- Pierre Devaux - *Florimond Desprez, France*
- Casillo Company, Italy (*TBD*)
- Divella Pasta Company, Italy (*TBD*)
- USA, Canada Pasta producer Representative (*TBD*)

15:30-17:00

Session 7

QUALITY AND FUNCTIONAL FOODS TRACEABILITY IN THE DURUM WHEAT CHAIN

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

Stefania Masci - University of Tuscia, Viterbo, Italy

Invited presentations

15:30-15:45

Development of new wheat-derived foods of the Mediterranean diet with improved nutritional and health value

Francesco Sestili - University of Tuscia, Viterbo, Italy

15:45-16:00

The expression of the *CsIF6* gene in wheat: a beta-glucan biosynthesis prospective

Ilaria Marcotuli - University of Bari, Italy

16:00-16:15

Genetic variation in semolina yellow colour-associated genes within the Global Durum Panel

Carlos Guzman - University of Cordoba, Spain

16:15-16:30

Short presentations selected from Abstracts of Sessions 6 & 7

16.30-17:00

Coffee break & Posters vision



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17:00-19:45

Session 8

DECODING AND LEVERAGING THE DURUM WHEAT PANGENOME

Chairs: Marco Maccaferri, *University of Bologna, Italy*; Curtis Pozniak - *University of Saskatchewan, Canada*

17:00-17:20

Landscape of structural variation in the wheat genome: functional and phenotypic consequences

Eduard Akhunov - *Department of Agronomy, Kansas State University, USA*

17:20-17:40

Uncovering hidden diversity in wheat genomes through k-mer-based analyses

Simon Krattinger - *KAUST, Thuwal, Saudi Arabia*

17:40-18:00

Inflorescence architecture and its relevance for sink capacity

Thorsten Schnurbush - *IPK, Gatersleben, Germany*

18:00-18:20

Exploiting the Tetraploid Wheat pangenome: a functional resource for the whole wheat community

Cristian Forestan - *University of Bologna, Italy*

18:20-18:50

Improving wheat productivity: stories from the source and the sink sides

Jorge Dubcovsky - *University of California, Davis, USA*

18:50-19:10

Closing remarks

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

20.00-23:00

Social Dinner

SATURDAY, 27 SEPTEMBER 2025

ROOM 1

09:00-11:30

EWG durum wheat

11:30-12:00

Coffee break and Posters vision

For Further Information

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