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TOPIC 1

ENABLING SUSTAINABLE WHEAT PRODUCTION IN A BROAD CROPPING SYSTEM. I CROP MANAGEMENT, SOIL CONSERVATION AND HEALTH

P1 - Activating genomic resources to decipher biological nitrification inhibition (BNI) in wheat

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P2 - Evaluating Genotype-by-Treatment Interactions in Hexaploid and Durum Wheat under Combined Water and Nutritional Stresses

Delfina Barabaschi ⁽¹⁾ - **Elisabetta Mazzucotelli** ⁽¹⁾ - **Francesca Desiderio** ⁽¹⁾ - **Alessandro Tondelli** ⁽¹⁾ - **Alice Povesi** ⁽¹⁾ - **Luigi Cattivelli** ⁽¹⁾

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P3 - A comparison of innovation systems to enable public-private collaboration in wheat breeding

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P4 - Genetic differences in wheat nitrogen use efficiency are explained by radiation interception under contrasting nitrogen availabilities

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P5 - From Maximum to Economically Optimal Yield and quality: Nitrogen Management Strategies for Winter Wheat in Flanders, Belgium

Bram Vervisch ⁽¹⁾ - **Jonas Claeys** ⁽¹⁾ - **Jill Dillen** ⁽²⁾ - **Veerle Derycke** ⁽³⁾ - **Sofie Landschoot** ⁽³⁾ - **Jean-Pierre Pellissier** ⁽²⁾

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P6 - Effect of Biostimulant Application at Different Growth Stages on Wheat Grain Morphology

Jurica Duvnjak ⁽¹⁾ - **Josip Stanic** ⁽²⁾ - **Velimir Mladenov** ⁽³⁾ - **Valentina Spanic** ⁽¹⁾

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P7 - Enhancing Durum Wheat Drought Resilience and Soil Fertility through Microbial Biostimulants and Wheat-Clover Intercropping Systems

Noemi Gatti ⁽¹⁾ - **Moez Maghrebi** ⁽¹⁾ - **Matteo Spada** ⁽²⁾ - **Alessandra Salvioli di Fossalunga** ⁽¹⁾ - **Marco Laiolo** ⁽³⁾ - **Stefano Maruccia** ⁽³⁾ - **Massimo Blandino** ⁽³⁾ - **Valentina Fiorilli** ⁽¹⁾ - **Stefania Astolfi** ⁽²⁾ - **Gianpiero Viganì** ⁽¹⁾

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P8 - Bread Wheat Varietal Mixtures Enhance Yield Stability and Grain Quality in Variable Environments

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P9 - Fragmented consensus: industry challenges in defining sustainable wheat

Nicolas Giordano ⁽¹⁾ - **Victor Sadras** ⁽²⁾ - **Terry Griffin** ⁽³⁾ - **Katherine Nelson** ⁽⁴⁾ - **Aastha Gautam** ⁽¹⁾ - **Stephen Welch** ⁽¹⁾ - **Mary Guttieri** ⁽¹⁾ - **Hande McGinty** ⁽⁵⁾ - **Nirmal Gelal** ⁽⁵⁾ - **Carlos Bonini Pires** ⁽⁶⁾ - **Aryan Dalal** ⁽⁵⁾ - **Kelsey Andersen Onofre** ⁽⁷⁾ - **Jean Ribert Francois** ⁽⁸⁾ - **Deborah Kohl** ⁽³⁾ - **Trevor Hefley** ⁽⁹⁾ - **Pascal Hitzler** ⁽⁵⁾ - **Romulo Pisa Lollato** ⁽¹⁾

P10 - The Yield and Quality of Winter Wheat Grain under Different Sowing and Nitrogen Management Strategies: A Case Study in Northeastern Poland

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P11 - Conservation Agriculture for Sustainable Wheat Production under the Soil–Climate Conditions of Uzbekistan

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P12 - Growth dynamics and nitrogen utilization characteristics of a wheat line with biological nitrification (BNI) inhibition capacity

Miu Koga ⁽¹⁾ - **Akari Tanaka** ⁽¹⁾ - **Ping An** ⁽²⁾ - **Satoshi Tobita** ⁽³⁾ - **Tadashi Yoshihashi** ⁽⁴⁾ - **Guntur Venkata Subbarao** ⁽⁵⁾ - **Masahiro Kishii** ⁽⁴⁾ - **Taiken Nakashima** ⁽⁶⁾ - **Hayato Maruyama** ⁽⁶⁾ - **Junichi Kashiwagi** ⁽⁶⁾

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P13 - Integrated Biological and Chemical Control Strategies for the Management of Mycotoxin Contamination in Wheat Cropping Systems under Different Tillage Regimes

Marco Laiolo ⁽¹⁾ - **Valentina Scarpino** ⁽¹⁾ - **Stefano Maruccia** ⁽¹⁾ - **Raffaele Meloni** ⁽¹⁾ - **Mattia Scapino** ⁽¹⁾ - **Massimo Blandino** ⁽¹⁾

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P14 - Wheat productivity is often limited by drought and nutrient deficiency, particularly in Mediterranean environments

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P15 - Thinking outside the row – investigating alternate spatial arrangements in wheat cropping

Frank Mazzone ⁽¹⁾ - **James Hunt** ⁽¹⁾ - **Juan Wang** ⁽¹⁾ - **Mohammad Pourkheirandish** ⁽¹⁾ - **James Manson** ⁽²⁾

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P16 - From knowledge to practice:

The economic assessment of improved varieties adoption in the case of wheat

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P17 - A multidimensional framework for selecting soft wheat varieties in dryland environments integrating productivity, nitrogen use efficiency, stability and economic performance

Qudratullah Soofizada ⁽¹⁾ - **Antonio Pescatore** ⁽¹⁾ - **Simone Orlandini** ⁽¹⁾ - **Marco Napoli** ⁽¹⁾

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P18 - Sensory profiles of wheat: Suitability for resilient production and consumer acceptance

Olawale Olalekan ⁽¹⁾ - **Julia Darlison** ⁽¹⁾ - **Nikwan Shariatipour** ⁽¹⁾ - **Karin Wendin** ⁽²⁾ - **Marcus Johansson** ⁽²⁾ - **Tina Henriksson** ⁽³⁾ - **Thomas Björklund** ⁽⁴⁾ - **Firuz Odilbekov** ⁽³⁾ - **Mahbubjon Rahmatov** ⁽¹⁾ - **Eva Johansson** ⁽¹⁾

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P19 - Remote sensing -based evidence from farmers' fields on how wheat benefits cropping systems

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P20 - Perennial wheat and perennial cereals: grain and forage yield

Valentin Picasso ⁽¹⁾

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P21 - Timing Matters: Sowing Date Modulates Winter Wheat Agronomic Optimum Plant Density

Luiz Otavio Pradella ⁽¹⁾ - **Romulo Pisa Lollato** ⁽¹⁾

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P22 - Enhancing Spring Wheat Adaptation in Northern Sweden Through Early Maturity, Yield Potential and Quality Improvement

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P23 - Optimizing wheat agronomic inputs in the humid Midsouth region of the United States

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P24 - Evaluating Planting Strategies and Varietal Canopy Architecture for Maximizing Winter Wheat Yield

Wallas da Silva ⁽¹⁾ - **Maninder Pal Singh** ⁽¹⁾

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P25 - Restorative biostimulants as a strategic tool for drought resilience and resource efficiency in durum wheat systems

Matteo Spada ⁽¹⁾ - **Moez Maghrebi** ⁽²⁾ - **Giulia Quagliata** ⁽¹⁾ - **Eleonora Coppa** ⁽¹⁾ - **Roberto Ruggeri** ⁽¹⁾ - **Francesco Rossini** ⁽¹⁾ - **Gianpiero Vigani** ⁽²⁾ - **Stefania Astolfi** ⁽¹⁾

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P26 - Primer crops to improve wheat productivity in high soil strength sandy soils

Wendy Vance ⁽¹⁾ - **Richard Bell** ⁽²⁾ - **David Minkey** ⁽³⁾ - **Roger Armstrong** ⁽⁴⁾ - **Nigel Wilhelm** ⁽⁵⁾ - **Yash Dang** ⁽⁶⁾

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P27 - Impact of fungicide strategies on yellow rust (*Puccinia striiformis*) and yield in winter wheat cultivars in Belgium

Derycke Veerle ⁽¹⁾ - **Kevin Dewitte** ⁽¹⁾ - **Sofie Landschoot** ⁽¹⁾ - **Joos Latré** ⁽²⁾

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P28 - Optimizing disease management and economic performance of winter wheat through varietal choice, application timing and variety mixtures under Flemish conditions

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P29 - A High Tillering QTn.mst-6B Allele Can Increase Productive Tillers And Yield Under High-Biomass Spring Wheat Cultivars Grown In Rainfed Environments

Mei-Ling Wong ⁽¹⁾ - **Jason Cook** ⁽¹⁾

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P30 - Productivity and identification of high-yielding genotypes of perennial grain crops in rainfed farming conditions of South-Eastern Kazakhstan

Rauan Zhapayev ⁽¹⁾ - **Gulya Kunyipyayeva** ⁽²⁾ - **Aliya Alimzhanova** ⁽¹⁾ - **Alexey Morgounov** ⁽³⁾

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P31 - The effects of strigolactone on the tiller formation in wheat

Min Zhu ⁽¹⁾

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P32 - Slow-release nitrogen fertilizer optimizes the vertical distribution of root systems and soil nutrients in the middle and later stage of wheat

Xinkai Zhu ⁽¹⁾

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TOPIC 2

ENABLING SUSTAINABLE WHEAT PRODUCTION IN A BROAD CROPPING SYSTEM. II PHENOMICS, ENVIROMICS, CROP MODELLING, DIGITAL AGRICULTURE

P33 - DiPredict – AI based optimization of selection under drought stress in wheat breeding

Muhammad Afzal ⁽¹⁾

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P34 - Use of non-supervised clustering to classify wheat phenology

Patricia Arizo-García ⁽¹⁾ - **Enric Cruzado-Campos** ⁽¹⁾ - **Sergio Castiñeira-Ibáñez** ⁽²⁾ - **Daniel Tarrazó-Serrano** ⁽²⁾ - **Alberto San Bautista** ⁽¹⁾

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P35 - Image-based classification of cereal breeding trial plots in Martonvasar

Judit Banyai ⁽¹⁾ - **Gyorgy Balassa** ⁽²⁾ - **Monika Cseplo** ⁽¹⁾ - **Klara Meszaros** ⁽¹⁾ - **Peter Miko** ⁽¹⁾

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P36 - Combining genomics, phenomics and phenotyping analysis to better characterize durum and bread wheat varieties under multi-environmental trials

Matteo Bozzoli ⁽¹⁾ - **Cristian Forestan** ⁽¹⁾ - **Martina Bruschi** ⁽¹⁾ - **Sandra Stefanelli** ⁽¹⁾ - **Francesco De Sario** ⁽¹⁾ - **Anna Giulini** ⁽²⁾ - **Matteo Ruggeri** ⁽³⁾ - **Davide Meriggi** ⁽³⁾ - **Edoardo Bartocetti** ⁽⁴⁾ - **Sridapa Udupa** ⁽⁵⁾ - **Preben Klarskov Hansen** ⁽⁶⁾ - **Humberto Fanelli Carvalho** ⁽⁷⁾ - **Julio Isidro y Sánchez** ⁽⁷⁾ - **Fiona Doohan** ⁽⁸⁾ - **Lisa Black** ⁽⁹⁾

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P37 - NIRS-based models in Wheat Breeding: Potential and Challenges!

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P38 - Development of a Decision Support System for Precision Agriculture in Soria: From uncertainty to Variable Rate-Nitrogen prescription maps in Wheat fields.

Enric Cruzado-Campos ⁽¹⁾ - **Patricia Arizo-García** ⁽¹⁾ - **Sergio Castiñeira-Ibáñez** ⁽²⁾ - **Daniel Tarrazó-Serrano** ⁽²⁾ - **Constanza Rubio** ⁽²⁾

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P39 - Characterizing Wheat GxE Interactions via Factor Analytic Models and Climate Covariates for Cross Performance Prediction in Unobserved Environments.

Mitchell Eglinton ⁽¹⁾ - **Lee Hickey** ⁽¹⁾ - **Ben Hayes** ⁽¹⁾ - **Karine Chenu** ⁽¹⁾ - **Eric Dinglasan** ⁽¹⁾ - **Alison Kelly** ⁽¹⁾ - **Bertus Jacobs** ⁽²⁾

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P40 - Temporal QLT mapping of canopy height using UAV-based phenotyping in bread wheat

Fabio Fania ⁽¹⁾ - **Salvatore Esposito** ⁽²⁾ - **Damiano Puglisi** ⁽¹⁾ - **Patrizio Spadanuda** ⁽³⁾ - **Abelardo Montesinos-López** ⁽⁴⁾ - **Osvaal A. Montesinos-López** ⁽⁴⁾ - **Paolo Vitale** ⁽⁵⁾ - **José Crossa** ⁽⁶⁾ - **Pasquale De Vita** ⁽¹⁾

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P41 - Explainable AI uncovers genomic regions associated with wheat yield prediction within a multimodal deep learning model

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P42 - Managing for upside in a variable climate: envirotyping wheat yield frontiers

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P43 - Scaling law links plant growth variation to grain yield in wheat stands

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P44 - Genomic Prediction in Wheat: using Random Regression Models for Stability with Genotype-Specific Phenology Derived Environmental Covariates

Lucia Gutierrez ⁽¹⁾ - **Pablo Sandro** ⁽²⁾ - **Rishap Dhakal** ⁽²⁾ - **Guillermo Sniadower** ⁽³⁾ - **Pablo Gonzalez-Barrios** ⁽³⁾

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P45 - Applications of Drone-Based High-Throughput Phenotyping in Wheat Variety Evaluation

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P46 - Relationships between UAV-derived vegetation indices, grain yield and plant height in wheat genotypes across growth stages and seasons

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P47 - Precision phenotyping of transpiration profiles and vegetation indices reveals importance of early response to drought in winter wheat

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P48 - Phenome-Emphasis - the French plant phenomic infrastructure

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P49 - UAV Image-Based High-Throughput Phenotyping for Wheat Breeding: From Single Rows to Yield Plots

Ali Lotfi ⁽¹⁾ - **Steve Shirlcliffe** ⁽¹⁾ - **Adam Carter** ⁽¹⁾

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P50 - High-throughput stomatal phenotyping provides novel selection targets for stress-resilient wheat

Mahmoud Mabrouk ⁽¹⁾ - **Nicholas Russell** ⁽¹⁾ - **Emilio Villar Alegria** ⁽¹⁾ - **Tien-Cheng Wang** ⁽¹⁾ - **Jui-An Liang** ⁽²⁾ - **Fang-Jin Wu** ⁽²⁾ - **Yunfeng Huang** ⁽³⁾ - **Benjamin Wittkop** ⁽⁴⁾ - **Rod Snowdon** ⁽⁴⁾ - **Lukas Förter** ⁽⁴⁾ - **Anna Moritz** ⁽⁵⁾ - **Eva Herzog** ⁽⁵⁾ - **Eliyah Ganji** ⁽⁶⁾ - **Gwendolin Wehner** ⁽⁶⁾ - **Andreas Stahl** ⁽⁶⁾ - **Tsu-Wei Chen** ⁽¹⁾

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P51 - From imagery to selection: advancing wheat breeding with uav-based high-throughput phenotyping

Ernandes Manfro ⁽¹⁾ - **Victor Silva Signorini** ⁽¹⁾ - **Ivana Sabljic** ⁽¹⁾ - **Gustavo Mazurkiewicz** ⁽¹⁾ - **Francisco Saccol Gnocato** ⁽¹⁾ - **Juan Ignacio Severo** ⁽²⁾

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P52 - AI-BASED SYSTEM TO SUPPORT SUSTAINABLE AGRICULTURE AND CEREAL SUPPLY CHAIN

Carmen Manganiello ⁽¹⁾ - **Giovanni Laidò** ⁽¹⁾ - **Anna Maria Mastrangelo** ⁽¹⁾ - **Donatella Bianca Maria Ficco** ⁽¹⁾ - **Salvatore Colecchia** ⁽¹⁾ - **Antonio Troccoli** ⁽¹⁾ - **Valeria Menga** ⁽¹⁾ - **Clara Fares** ⁽¹⁾ - **Vanessa De Simone** ⁽¹⁾ - **Maki Habib** ⁽²⁾ - **Chiara Sammarco** ⁽³⁾ - **Antonio Padovano** ⁽³⁾ - **Daniela Marone** ⁽¹⁾

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P53 - Satellite-derived nitrogen nutrition index for precision fertilization in durum wheat: agronomic, economic and environmental performance

Carolina Fabbri ⁽¹⁾ - **Antonio Delgado** ⁽²⁾ - **Lorenzo Guerrini** ⁽³⁾ - **Marco Napoli** ⁽¹⁾

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P54 - Evaluation of Photosynthetic Traits Across Various Hexaploid Wheat Genotypes

Preety Rani ⁽¹⁾ - **Mamrutha HM** ⁽²⁾ - **Zeenat Wadhwa** ⁽³⁾ - **Rinki khobra** ⁽³⁾ - **Vanita Pandey** ⁽³⁾ - **Yogesh Kumar** ⁽³⁾ - **Ratan Tiwari** ⁽³⁾

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P55 - Magnetic resonance imaging (MRI) for wheat grain phenotyping and beyond

Hardy Rolletschek ⁽¹⁾ - **Iaroslav Plutenko** ⁽²⁾ - **Christian Hänig** ⁽²⁾ - **Ljudmilla Borisjuk** ⁽¹⁾

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P56 - Cross-Sensor Phenotyping Reveals Key Traits for Yield-Based Drought Tolerance in Wheat

Sahameh Shafiee ⁽¹⁾

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P57 - A Lightweight Semi-Automated Framework for Wheat Spike Segmentation and Spike-Level Phenotyping

Firozeh Solimani ⁽¹⁾ - **Nida Mushtaq** ⁽¹⁾ - **Fabio Fania** ⁽¹⁾ - **Salvatore Colecchia** ⁽¹⁾ - **Giovanni Laido** ⁽¹⁾ - **Nicola Pecchioni** ⁽¹⁾

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P58 - Differential Antioxidative and Molecular Responses among Winter Wheat Genotypes: Implications for Precision Crop Management

Katarina Šunić Budimir ⁽¹⁾ - **Rosemary Vuković** ⁽²⁾ - **Velimir Mladenov** ⁽³⁾ - **Valentina Španić** ⁽¹⁾

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P59 - Integrating OJIP kinetics and gas exchange traits to screen for drought tolerance in Wheat

Vishnukiran Thuraga ⁽¹⁾ - **Mahubjon Rahmatov** ⁽¹⁾ - **Lan Yuzhou** ⁽¹⁾ - **Firuz Odilbekov** ⁽²⁾ - **Jonathan Cope** ⁽³⁾ - **Eva Johansson** ⁽¹⁾ - **Aakash Chawade** ⁽¹⁾

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P60 - From Climate Data to Durum Wheat Cultivar Selection: An AI-based Interpretable Decision-Support Framework

Walter Vieri ⁽¹⁾ - **Nastasiya F. Grinberg** ⁽²⁾ - **Andreina Belocchi** ⁽³⁾ - **Donatella Paffetti** ⁽⁴⁾ - **Matteo Buti** ⁽⁴⁾

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P61 - Disentangling genetic and environmental control of photosynthetic nitrogen dynamics in wheat canopies

Emilio Villar Alegria ⁽¹⁾ - **Nicholas J. Russell** ⁽¹⁾ - **Tsu-Wei Chen** ⁽¹⁾

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P62 - Rapid detection of wheat frost at seedling Stage using UAV based phenotyping

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⁽¹⁾ Institute of Crop Sciences, Chinese Academy of Agricultural Sciences, Crop Genetics and Breeding, Beijing, China

P63 - High-Throughput Phenotyping and QTL Analysis of Wheat Stomatal Density Enabled by Portable Microscopy and Deep Learning

yonggui xiao ⁽¹⁾ - **yidan jia** ⁽¹⁾ - **shuaipeng fei** ⁽¹⁾ - **lei li** ⁽¹⁾

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P64 - Future climate threatens Australian wheat yield and quality

Zixiong Zhuang ⁽¹⁾ - **Emi Tanaka** ⁽¹⁾ - **Richard Trethowan** ⁽²⁾ - **Danielle Way** ⁽¹⁾

⁽¹⁾ The Australian National University, Research School of Biology, Canberra, Australia - ⁽²⁾ University of Sydney, Plant Breeding Institute, Narrabri, Australia

P65 - Utilizing High-Throughput Phenotyping to Identify Metribuzin Tolerance in Winter Wheat

Melinda Zubrod ⁽¹⁾ - **Andrew Herr** ⁽¹⁾ - **Pia Spychalla** ⁽²⁾ - **Ian Burke** ⁽¹⁾ - **Arron Carter** ⁽¹⁾

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TOPIC 3

CARBON FOOTPRINT OF WHEAT PRODUCTION: TOWARD A REDUCTION OF GREENHOUSE GAS EMISSIONS

P66 - Developing Nitrogen-Efficient Wheat Using Biological Nitrification Inhibition (BNI) Technology for Sustainable Production in the Indo-Gangetic Plains

Pradeep Kumar BHATI ⁽¹⁾ - **Manish kumar Vishwakarma** ⁽¹⁾ - **Narain Dhar** ⁽¹⁾ - **B M Prasanna** ⁽²⁾

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P67- Increasing the protein use efficiency of the MAGIC-WHEAT-Population WM-800

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TOPIC 4

EXPLORING WHEAT DIVERSITY, EVOLUTION AND GENETIC RESERVOIRS

P68 - Controlling wheat – rye interspecific crossability for Wheat and Triticale improvement

Bacon Antoine ⁽¹⁾ - **Sourdille Pierre** ⁽¹⁾ - **Pitarch Anaïs** ⁽¹⁾ - **Partier Anne** ⁽¹⁾ - **Choulet Frederic** ⁽¹⁾ - **Sakuma Shun** ⁽²⁾ - **Vautrin Sonia** ⁽³⁾

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P69 - An automated untargeted metabolomics analysis platform for large-scale samples and its application in wheat polyploidization research

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P70 - Assessment of in situ wild emmer wheat genome evolution over long-term periods

Dana Bar-Zvi ⁽¹⁾ - **Cathy Melamed-Bessudo** ⁽¹⁾ - **Dikla Lifshitz** ⁽²⁾ - **Einav Mayzlish-Gati** ⁽²⁾ - **Avraham A. Levy** ⁽¹⁾
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P71 - Seed germination and seedling establishment in durum wheat: the role of heterosis and its influence in stress tolerance

Sara Belcapo ⁽¹⁾ - **Elise Rethoré** ⁽²⁾ - **Francesca Desiderio** ⁽³⁾ - **Nusrat Ali** ⁽²⁾ - **Lun Jing** ⁽²⁾ - **Clara Le Tennier** ⁽²⁾ - **Sandrine Jaguelin** ⁽²⁾ - **Eric Nguema-Ona** ⁽²⁾ - **Ignacio Ezquer** ⁽¹⁾
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P72 - Wheat polyploidization - genome shock or business as usual?

Peter Civan ⁽¹⁾ - **Meriem Banouh** ⁽¹⁾ - **Jerome Salse** ⁽¹⁾
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P73 - Integrated Analyses of the Vrn-B1 Locus Reveal Structural Variations and Novel Allelic Diversity in Triticum spp.

Ida Colella ⁽¹⁾ - **Giuseppina Angione** ⁽²⁾ - **Salvatore Esposito** ⁽³⁾ - **Francesco Sestili** ⁽¹⁾ - **Dominique Stephanie Hirsz** ⁽⁴⁾ - **Bethan Kate Soanes** ⁽⁴⁾ - **Laura Dixon** ⁽⁴⁾ - **Pasquale De Vita** ⁽⁵⁾
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P74 - Investigation of phenotypic and gene expression response to different vernalization regimes.

Raffaella De Cicco ⁽¹⁾ - **Beth Soanes** ⁽²⁾ - **Dominique Hirsz** ⁽²⁾ - **Domenica Nigro** ⁽¹⁾ - **Giacomo Mangini** ⁽³⁾ - **Laura Dixon** ⁽²⁾
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P75 - Beyond Green Revolution Rht Genes: Candidate Loci Influencing Growth in Durum Wheat

Giuseppina Angione ⁽¹⁾ - **Concetta Lotti** ⁽¹⁾ - **Salvatore Esposito** ⁽²⁾ - **Fabio Fania** ⁽³⁾ - **Damiano Puglisi** ⁽³⁾ - **Ida Colella** ⁽⁴⁾ - **Angelica Giancaspro** ⁽¹⁾ - **Philippa Borrill** ⁽⁵⁾ - **Pasquale De Vita** ⁽³⁾
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P76 - Screening and Genetic Dissection of Common Bunt Resistance in a Diverse Wheat Panel

Claire Simone Ferreira ⁽¹⁾ - **Albrecht Serfling** ⁽¹⁾ - **Andreas Stahl** ⁽¹⁾
⁽¹⁾ Julius Kühn Institut, Institute for Resistance Research and Stress Tolerance, Quedlinburg, Germany

P77 - Genetic Dissection of Root Architectural and Biomass Traits in Durum Wheat Landraces Using Rhizotron Experiments

Genet Atsbeha Fiseha ⁽¹⁾ - **Muhammad Awais Farooq** ⁽¹⁾ - **Congying Zhou** ⁽¹⁾ - **Martina Bruschi** ⁽¹⁾ - **Manar Makoul** ⁽²⁾ - **Francisco Pinto** ⁽³⁾ - **Chunyi Liu** ⁽¹⁾ - **Xinying Z heng** ⁽¹⁾ - **Cristian Forestan** ⁽¹⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Matthew Reynolds** ⁽³⁾ - **Rod J S nowdon** ⁽⁴⁾ - **Enrico Noli** ⁽¹⁾ - **Silvio Salvi** ⁽¹⁾ - **Eric Ober** ⁽⁵⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾
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P78 - Investigating the relationship between grain morphology and polysaccharide content in ancient and modern wheats

Mathilde Francin-Allami ⁽¹⁾ - **David Legland** ⁽¹⁾ - **Axelle Bouder** ⁽¹⁾ - **Sabine Martin** ⁽²⁾ - **Lucie Le Bot** ⁽¹⁾ - **Sylvie Durand** ⁽¹⁾ - **Lèna Brionne** ⁽¹⁾ - **Amélie Bresson** ⁽²⁾ - **Clément Dubiton** ⁽²⁾ - **Camille Alvarado** ⁽¹⁾ - **Angelina D'orlando** ⁽¹⁾ - **Xavier Falourd** ⁽¹⁾ - **Richard Sibout** ⁽¹⁾ - **Christine Girousse** ⁽²⁾ - **Catherine Ravel** ⁽²⁾ - **Anne-Laure Reguerre** ⁽¹⁾ - **Anne-Laure Chateigner-Boutin** ⁽¹⁾

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P79 - Mutation Burden in Wheat Germplasm: It Is Time to Address This Genetic Cost

Yong-Bi Fu ⁽¹⁾

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P80 - Recent winter wheat cultivars from N.A.R.D.I. Fundulea possess a rare combination of high grain yield and good grain protein concentration

Serban Gabriela ⁽¹⁾ - **Marinciu Cristina Mihaela** ⁽¹⁾ - **Galit Indira** ⁽¹⁾ - **Mandea Vasile** ⁽¹⁾ - **Vasilescu Silviu** ⁽¹⁾ - **Saulescu N. Nicolae** ⁽¹⁾

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P81- Dissecting the Root Growth Angle QTLome in tetraploid Wheat (*Triticum turgidum* ssp.) as a Key Component of Drought Stress Resilience

Alessio Gaudino ⁽¹⁾ - **Muhammad Awais Farooq** ⁽¹⁾ - **Martina Bruschi** ⁽¹⁾ - **Manar Makoul** ⁽²⁾ - **Francisco Pinto** ⁽³⁾ - **Chunyi Liu** ⁽¹⁾ - **Enrico Noli** ⁽¹⁾ - **Matthew Reynolds** ⁽⁴⁾ - **Pasquale De Vita** ⁽⁵⁾ - **Nicola Pecchioni** ⁽⁵⁾ - **Rod J Snowdon** ⁽²⁾ - **Silvio Salvi** ⁽¹⁾ - **Eric Ober** ⁽⁴⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾

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P82 - Characterization of α -Gliadin amplicons and identification of celiac disease epitopes in Spanish wheat landraces.

Marta Gavilán-Camacho ⁽¹⁾ - **María H Guzmán-López** ⁽¹⁾ - **Miriam Marín-Sanz** ⁽¹⁾ - **Rosa Morcuende** ⁽²⁾ - **Juan B. Arellano** ⁽²⁾ - **Francisco Barro** ⁽¹⁾

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P83 - Semi-dwarf Italian durum wheats: Thirty-five years of breeding progress under a changing Mediterranean climate

Rosella Motzo ⁽¹⁾ - **Simona Bassu** ⁽¹⁾ - **Marco Dettori** ⁽²⁾ - **Gianluca Carboni** ⁽³⁾ - **Lucia Mameli** ⁽³⁾ - **Francesco Giunta** ⁽¹⁾

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P84 - Induced Mutant Lines as a Source of Phenotypic Variability for Bread Wheat (*Triticum aestivum* L.) Improvement

Svetlana Glogovac ⁽¹⁾ - **Dragana Trkulja** ⁽¹⁾ - **Dragana Miladinović** ⁽¹⁾ - **Milan Miroslavljević** ⁽²⁾ - **Igor Vukelić** ⁽¹⁾ - **Ankica Kondić-Špika** ⁽¹⁾

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P85 - The Complete Chloroplast Genome of *Triticum araraticum* Reveals a Mismatch in the Origin of Georgian Zanduri Wheat (*T. timopheevii*)

Mari Gogniashvili ⁽¹⁾ - **Natia Tepnadze** ⁽²⁾ - **Nana Kunelauri** ⁽¹⁾ - **Assaf Distelfeld** ⁽³⁾

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P86 - Dynamics of repetitive DNA sequences over the course of evolution and intraspecific divergence of tetraploid goat-grass species *Aegilops biuncialis* Vis.

Maida Jazmin Gonzalez Franco ⁽¹⁾ - **Olga Razumova** ⁽¹⁾ - **Viktoria Sokolova** ⁽¹⁾ - **Anna Yurkina** ⁽¹⁾ - **Viktoria Voronezhskaya** ⁽¹⁾ - **Daniil Ulyanov** ⁽¹⁾ - **Mikhail Divashuk** ⁽¹⁾ - **Ekaterina Badaeva** ⁽¹⁾

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P87 - Influence of the root system in the performance of wheat under sustainable systems - TRigoSost

Carla Guijarro-Real ⁽¹⁾ - **María Ángeles Morales-Céspedes** ⁽¹⁾ - **Patricia Giraldo** ⁽¹⁾

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P88 - Digitalize wheat haplotype block diversity towards cost-efficient genotyping and knowledge integration

Wenxi Wang ⁽¹⁾ - **Zihao Wang** ⁽¹⁾ - **Zhengzhao Yang** ⁽¹⁾ - **Zhe Chen** ⁽¹⁾ - **Zhaoxing Yu** ⁽¹⁾ - **Xiaoming Xie** ⁽¹⁾ - **Siqi Chen** ⁽¹⁾ - **Jianxia Niu** ⁽¹⁾ - **Huiru Peng** ⁽¹⁾ - **Zhongfu Ni** ⁽¹⁾ - **Qixin Sun** ⁽¹⁾ - **Weilong Guo** ⁽¹⁾

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P89 - Accumulation of ph1 (zip4-5B) and ph2 (msh7-3D) mutations fails to boost homoeologous recombination in hexaploid wheat

Camille Haquet ⁽¹⁾ - **Isabelle Nadaud** ⁽¹⁾ - **Azahara C. Martin** ⁽²⁾ - **Maria-Dolores Rey** ⁽²⁾ - **Asma Ben Bouslah** ⁽¹⁾ - **Carus John-Bejai** ⁽³⁾ - **Graham Moore** ⁽²⁾ - **Pierre Sourdille** ⁽¹⁾

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P90 - Exploring seasonality in wheat through alternative growth habits

Dominique Hirsz ⁽¹⁾ - **Beth Soanes** ⁽¹⁾ - **India Lacey** ⁽²⁾ - **Harry Taylor** ⁽³⁾ - **Laura Dixon** ⁽¹⁾

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P91 - Molecular characterization of introgressions from *Thinopyrum ponticum* conferring stem solidness in Canadian Wheat.

Sandra Ibellow ⁽¹⁾ - **Martha Bonilla-Bentancourt** ⁽¹⁾ - **Carlos Erazo** ⁽¹⁾ - **Pierre Hucl** ⁽¹⁾ - **Adam Carter** ⁽¹⁾

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P92 - Multiple modes of chromosome elimination during hybrid embryogenesis in the subfamily wide hybridization of wheat, oat, and *Pennisetum* species

Takayoshi Ishii ⁽¹⁾

⁽¹⁾ Tottori University, International Platform for Dryland Research and Education, Tottori, Japan

P93 - Genome-wide association study of male reproductive traits reveals a novel locus in *Aegilops tauschii*

Hiroyuki Kakui ⁽¹⁾ - **Moeko Okada** ⁽²⁾ - **Wei Guo** ⁽³⁾ - **Yoshihiro Matsuoka** ⁽⁴⁾

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P94 - A trait-customized Wheat (*Triticum aestivum* L.) core-collection provides sources of resistance against powdery mildew (*Blumeria graminis*) for its use in pre-breeding

Sandip Kale ⁽¹⁾ - **Stefanie Lueck** ⁽²⁾ - **Dimitar Douchkov** ⁽²⁾ - **Jochen Reif** ⁽²⁾

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P95 - Activating the global potential of the Australian Grains Genebank with open data, digital tools and AI

Gabriel Keeble-Gagnere ⁽¹⁾ - **Kerrie Forrest** ⁽¹⁾ - **Debbie Wong** ⁽¹⁾ - **Don Isdale** ⁽¹⁾ - **Luisa Teasdale** ⁽¹⁾ - **James O'Dwyer** ⁽¹⁾ - **Mahdi Rahimi** ⁽¹⁾ - **Kenny Yu** ⁽¹⁾ - **Kanak Jain** ⁽¹⁾ - **Frank Su** ⁽¹⁾ - **Parampreet Kaur** ⁽¹⁾ - **Shiva Azizinia** ⁽¹⁾ - **Irene Van den Berg** ⁽¹⁾ - **Sivakumar Sukumaran** ⁽¹⁾ - **Sally Norton** ⁽¹⁾ - **Matthew Hayden** ⁽¹⁾

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P96 - Discovery of Stem Rust Resistance in a Wheat Wild Relative Using Bulked Segregant Analysis Sequencing

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P97 - Population structure and genetic diversity of Japanese wheat collection assessed by genome-wide genotyping and gene targeted sequencing

Shoya Komura ⁽¹⁾ - **Haruki Nakamura** ⁽²⁾ - **Nobuyuki Mizuno** ⁽¹⁾ - **Yutaka Sato** ⁽¹⁾ - **Tsuyoshi Tanaka** ⁽³⁾ - **Goro Ishikawa** ⁽¹⁾ - **Fuminori Kobayashi** ⁽¹⁾

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P98 - Genomic analysis of *Thinopyrum* spp. introgressions on durum wheat 7AL arm via flow-sorted chromosome sequencing

Ljijana Kuzmanovic ⁽¹⁾ - **Raul Pirona** ⁽²⁾ - **Debora Giorgi** ⁽³⁾ - **Elena Baldoni** ⁽²⁾ - **Alessandra Capoccioni** ⁽¹⁾ - **Miriam Negussu** ⁽¹⁾ - **Maria Lia Di Romana** ⁽¹⁾ - **Sergio Lucretti** ⁽³⁾ - **Francesco Camerlengo** ⁽⁴⁾ - **Francesco Sestili** ⁽⁴⁾ - **Carla Ceoloni** ⁽⁴⁾

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P99 - Winter survival in Iceland explained by population structure in Nordic winter wheat germplasm

Sbatie Lama ⁽¹⁾ - **Egill Gautason** ⁽¹⁾ - **Hrannar Smári Hilmarsson** ⁽¹⁾

⁽¹⁾ Agricultural University of Iceland, Faculty of Agricultural Sciences, Hvanneyri, Iceland

P100 - Stability of grain yield and protein content in winter wheat under varying production conditions

Ana Lovrić ⁽¹⁾ - **Marko Maričević** ⁽¹⁾ - **Ivica Ikić** ⁽¹⁾ - **Bruno Rajković** ⁽¹⁾ - **Hrvoje Šarčević** ⁽²⁾

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P101 - Wheat Genetic Background Selection: A Core Prerequisite for Wide Hybridization and Efficient Utilization of *Agropyron cristatum* 6P Elite Genes

Yuqing Lu ⁽¹⁾ - **Kai Qi** ⁽¹⁾ - **Haiming Han** ⁽¹⁾ - **Jinpeng Zhang** ⁽¹⁾ - **Shenghui Zhou** ⁽¹⁾ - **Lihui Li** ⁽¹⁾

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P102 - Breeding for Better Durum: Enhancing Defense Against Fusarium Headblight Disease

Jedi Joy Mahilum ⁽¹⁾ - **Barbara Steiner** ⁽¹⁾ - **Hermann Buerstmayr** ⁽¹⁾ - **Kirana Rizky Pasthika** ⁽²⁾

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P103 - Variability of grain yield and quality in winter wheat accessions from the Croatian gene bank released over 60-year period

Marko Maričević ⁽¹⁾ - **Ana Lovrić** ⁽¹⁾ - **Ivica Ikić** ⁽¹⁾ - **Bruno Rajković** ⁽¹⁾ - **Hrvoje Šarčević** ⁽²⁾

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P104 - Yield and Yield Components Evaluation in a Subset of Genotypes from the Global Durum Panel (GDPv1) Under Drought and Normal Rainfall Conditions

Juan Manuel Rivera ⁽¹⁾ - **Diana Martino** ⁽¹⁾ - **Lisardo Gonzalez** ⁽¹⁾ - **Juan Pablo Edwards Molina** ⁽²⁾ - **Pablo Federico Roncallo** ⁽³⁾

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P105 - Genome-wide association study of root morphology traits in a collection of durum wheat cultivars and landraces

Grazia Maria Borrelli ⁽¹⁾ - **Daniela Marone** ⁽¹⁾ - **Elisabetta Mazzucotelli** ⁽²⁾ - **Marco Maccaferri** ⁽³⁾ - **Matteo Bozzoli** ⁽³⁾ - **Maria Anna Russo** ⁽¹⁾ - **Anna Iannucci** ⁽¹⁾ - **Antonia Mores** ⁽¹⁾ - **Vanessa De Simone** ⁽¹⁾ - **Leonardo Morcone** ⁽¹⁾ - **Maria Pellegrino** ⁽¹⁾ - **Anna Maria Mastrangelo** ⁽¹⁾

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P106 - Epigenomic dynamics and changes in chromosomal architecture during synthetic wheat formation

Messerer Maxim ⁽¹⁾ - **McKenzie Neil** ⁽²⁾ - **Juhasz Angela** ⁽³⁾ - **Horsnell Richard** ⁽⁴⁾ - **Lan Yuxuan** ⁽⁵⁾ - **Gundlach Heidrun** ⁽¹⁾ - **Gardiner Laura** ⁽⁵⁾ - **Kamal Nadia** ⁽⁶⁾ - **Lang Daniel** ⁽¹⁾ - **Martin Azahara** ⁽²⁾ - **Goodwin Sara** ⁽⁷⁾ - **McCombie Richard** ⁽⁷⁾ - **Regulski Michael** ⁽⁷⁾ - **Martienssen Rob** ⁽⁷⁾ - **Moore Graham** ⁽²⁾ - **Mayer Klaus F X** ⁽¹⁾ - **Hall Anthony** ⁽⁵⁾ - **Spannagl Manuel** ⁽¹⁾ - **Bevan Michael** ⁽²⁾

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P107 - Morphological and Genetic Diversity in Serbian Wheat Germplasm

Sanja Mikic ⁽¹⁾ - **Dragana Trkulja** ⁽²⁾ - **Ankica Kondic-Spika** ⁽²⁾ - **Verica Zelic** ⁽¹⁾ - **Ljiljana Brbaklic** ⁽¹⁾

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P108 - The indigenous, traditional Georgian wheat species, disease-resistant and healthy food

Marine Mosulishvili ⁽¹⁾ - **Nino Toriashvili** ⁽¹⁾ - **Ineza Maisaia** ⁽²⁾ - **Marine Bokeria** ⁽³⁾ - **Zaal Kikvidze** ⁽⁴⁾

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P109 - Integration of molecular cytogenetic techniques and SNP genotyping to identify the genomic loci associated with *Aegilops speltoides* derived leaf rust resistance gene

Niranjana Murukan ⁽¹⁾ - **Ragini R** ⁽¹⁾ - **Malavika N Shal** ⁽¹⁾ - **Navpreet Kaur Sekhon** ⁽¹⁾ - **Priyanka Agarwal** ⁽¹⁾ - **Chetna Chugh** ⁽¹⁾ - **Prachi Yadav** ⁽¹⁾ - **Niharika Mallick** ⁽¹⁾ - **SK Jha** ⁽¹⁾ - **SMS Tomar** ⁽¹⁾ - **Vinod** ⁽¹⁾

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P110 - Exploring the regulatory mechanisms of hybrid incompatibilities in synthetic hexaploid wheat by transcriptome analysis

Sotaro Nakanishi ⁽¹⁾ - **Kazusa Nishimura** ⁽¹⁾ - **Makoto Kashima** ⁽²⁾ - **Haruna Kagehira** ⁽²⁾ - **Moeko Okada** ⁽³⁾ - **Yuki Monden** ⁽¹⁾ - **Kenji Kato** ⁽¹⁾ - **Atsushi Toyoda** ⁽⁴⁾ - **Hidetaka Nishida** ⁽¹⁾

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P111 - Linking aneuploidy, meiotic irregularities and fertility to phenology in synthetic octoploid wheat derived from *Triticum turgidum* and *Aegilops columnaris*

Adam Izzuddin Nasir ⁽¹⁾ - **Kentaro Yoshida** ⁽¹⁾

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P112 - Unlocking Global Wheat Diversity through the Panphenome

Hannah Friederike Oertel ⁽¹⁾

- ⁽¹⁾ Quantitative Genetics, Seeland, Germany

P113 - Potential of traditional Spanish wheat varieties for organic farming and end-use quality analysis

José Palma ⁽¹⁾ - **Laura Pascual** ⁽¹⁾ - **Elena Benavente** ⁽¹⁾ - **Patricia Giraldo** ⁽¹⁾

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P114 - Potential of traditional Spanish wheat varieties for organic farming and end-use quality analysis

José Jorge Palma Pérez ⁽¹⁾ - **Laura Pascual** ⁽¹⁾ - **Patricia Giraldo** ⁽¹⁾ - **Elena Benavente** ⁽¹⁾

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P115 - QTL mapping for seminal root traits in Meridiano × Kyperunda durum wheat RIL population

Guglielmo Piazzì ⁽¹⁾ - **Borjana Arsova** ⁽²⁾ - **bartolo giuseppe dimattia** ⁽¹⁾ - **luca ceccato** ⁽¹⁾ - **matteo bozzoli** ⁽¹⁾ - **jana kelm** ⁽²⁾ - **jule hansen** ⁽²⁾ - **Helena Waldmann** ⁽²⁾ - **tanja ehrlich** ⁽²⁾ - **Kerstin Nagel** ⁽²⁾ - **joefine kant** ⁽³⁾ - **marco maccaferri** ⁽¹⁾ - **Silvio Salvi** ⁽¹⁾

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P116 - Uncovering Alien Defences: Detecting Rust Resistance Introgressions in Wheat Using High-Density SNP Arrays and Segmentation

Marin Pierre ⁽¹⁾ - **Vazeille Aymeric** ⁽¹⁾ - **Bouchet Sophie** ⁽¹⁾

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P117 - Identification and mapping of Hessian fly resistance genes in elite spring bread wheat genotypes

Fatima Ezzahra Rachdad ⁽¹⁾ - **Wuletaw Tadesse DEGU** ⁽¹⁾ - **Fatima HENKRAR** ⁽²⁾

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P118 - Differential Phosphorus Acquisition Strategies in Triticum turgidum ssp. durum: Plant Nutritional Insights for Future Breeding

Tobias Reineke ⁽¹⁾ - **Steffen Parl** ⁽¹⁾ - **Mahdi Jalali** ⁽¹⁾ - **Mirriam Chishala Chibesa** ⁽²⁾ - **Raphael Tiziani** ⁽²⁾ - **Salvatore Esposito** ⁽³⁾ - **Tanja Mimmo** ⁽²⁾ - **Pasquale De Vita** ⁽³⁾ - **Jakob Santner** ⁽¹⁾

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P119 - Australian donors based wheat nested association mapping population enhanced genetic diversity for stripe rust adult plant resistance in high yielding cultivars from eastern africa and south asia

Karanjeet Sandhu ⁽¹⁾ - **Davinder Singh** ⁽¹⁾ - **Fikrte Belayineh** ⁽²⁾ - **Tamrat Negash** ⁽²⁾ - **Hanif Khan** ⁽³⁾ - **Subhash Bhardwaj** ⁽³⁾ - **Suraj Baidya** ⁽⁴⁾ - **Dhruba Thapa** ⁽⁴⁾ - **Muhammad Fayyaz** ⁽⁵⁾ - **Shahzad Asad** ⁽⁵⁾ - **Robert Park** ⁽¹⁾

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P120 - Defining the juvenile-to-adult phase transition in wheat revealed its diversification among spring wheat varieties

Kanata Senoo ⁽¹⁾ - **Shunsuke Yoshioka** ⁽¹⁾ - **Koichi Yamamori** ⁽¹⁾ - **Takanori Yoshikawa** ⁽¹⁾ - **Shuhei Nasuda** ⁽¹⁾

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P121 - Evaluation, validation and mapping of unknown leaf and stripe rust resistances from wheat genetic resources

Albrecht Serfling ⁽¹⁾ - **Jochen Christoph Reif** ⁽²⁾ - **Andreas Stahl** ⁽¹⁾

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P122 - Genome Assemblies and Comparative Genomics of 18 Aegilops Species Reveal Evolutionary Dynamics in Diploid and Polyploid Wild Wheat Relatives

Hamna Shazadee ⁽¹⁾ - **Tara Edwards** ⁽²⁾ - **Madeleine Lévesque-Lemay** ⁽²⁾ - **Chunfang Zhang** ⁽³⁾ - **Jennifer Ens** ⁽⁴⁾ - **Frank M. You** ⁽³⁾ - **Curtis J. Pozniak** ⁽⁴⁾ - **Sylvie Cloutier** ⁽²⁾

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P123 - Integrating High-Throughput Genomics and Advanced Bioinformatics to Rationalize and Enhance Utilization of Wheat Genetic Resources from the National Genebank of India

Amit Kumar Singh ⁽¹⁾

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P124 - Watkins wheat landraces: a treasure of stripe rust resistance alleles identified using multi-model association analyses

Jasneet Singh ⁽¹⁾ - **Jawad Awan** ⁽¹⁾ - **Naveen Kumar** ⁽¹⁾ - **Samuel Holden** ⁽¹⁾ - **Rajdeep Khangura** ⁽²⁾ - **Gurcharn Brar** ⁽¹⁾

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P125 - Unlocking adaptive genetic diversity in Mediterranean durum wheat using genome-wide association analysis

Fatima Ezzahrae Addi ⁽¹⁾ - **Jose Miguel Soriano** ⁽¹⁾

⁽¹⁾ Universitat de Lleida, Ciència i Enginyeria Forestal i Agrícola, Lleida, Spain

P126 - Identification of novel genes for early heading from wild emmer wheat collected in Israel

Nina Takano ⁽¹⁾ - **Kazusa Nishimura** ⁽¹⁾ - **Yun-hsuan Chang** ⁽²⁾ - **Mai Kakusaka** ⁽³⁾ - **Maho Okuma** ⁽¹⁾ - **Kazuki Murata** ⁽²⁾ - **Ryohei Nakano** ⁽²⁾ - **Kanako Kawaura** ⁽³⁾ - **Tetsuya Nakazaki** ⁽⁴⁾ - **Kenji Kato** ⁽¹⁾ - **Yuki Monden** ⁽¹⁾ - **Hidetaka Nishida** ⁽¹⁾

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P127 - Global diversity of arabinoxylans, alkylresorcinols and phenolic acids in 180 rye (*Secale cereale* L.) accessions: implications for functional food innovation

Yuanyuan Tian ⁽¹⁾

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P128 - Phenotypic Characterization of Serbian Bread Wheat Landraces for Breeding-Relevant Traits

Dragana Trkulja ⁽¹⁾ - **Sanja Mikić** ⁽²⁾ - **Svetlana Glogovac** ⁽¹⁾ - **Milan Miroslavljević** ⁽²⁾ - **Bojan Jocković** ⁽²⁾ - **Igor Vukelić** ⁽¹⁾ - **Dragan Živančev** ⁽²⁾ - **Delfina Barabaschi** ⁽³⁾ - **Elisabetta Mazzucotelli** ⁽³⁾ - **Ankica Kondić Špika Kondić Špika** ⁽¹⁾

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P129 - A spike length QTL co-localizing with TaERF-A1 shows pleiotropic effects on plant height and agronomic traits

Giuliana Ferrari ⁽¹⁾ - **Nicole Pretini** ⁽²⁾ - **Fernanda Gabriela González** ⁽¹⁾ - **Leonardo Sebastián Vanzetti** ⁽³⁾

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P130 - A Balkan Durum Wheat Panel for Resistance to Mosaic and Streak Viruses under Climate Change

Ana Velimirović ⁽¹⁾ - **Yu Cai** ⁽²⁾ - **Heike Lehnert** ⁽³⁾ - **Jelena Zindović** ⁽¹⁾ - **Zoran Jovović** ⁽¹⁾ - **Novo Pržulj** ⁽⁴⁾ - **Marco Maccaferri** ⁽⁵⁾ - **Giacomo Mangini** ⁽⁶⁾ - **Mariella Matilde Finetti-Sialer** ⁽⁶⁾ - **Jitendra Thakur** ⁽⁷⁾ - **Gordana Lastovicka Medin** ⁽⁸⁾ - **Dragan Perović** ⁽²⁾

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P131 - Yield Performance of Synthetic-derived Winter Wheat Lines in the U.S. Southern Great Plains

Qingwu Xue ⁽¹⁾ - **Shuyu Liu** ⁽²⁾ - **Jackie Rudd** ⁽¹⁾ - **Amir Ibrahim** ⁽³⁾ - **Shannon Baker** ⁽¹⁾ - **Jason Baker** ⁽¹⁾ - **Kirk Jessup** ⁽¹⁾

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P132 - Deleterious Mutational Load Across Wheat Evolution: From Wild Diploid Progenitors to Hexaploid Bread Wheat

Peter Zhurbenko ⁽¹⁾ - **Avraham Levy** ⁽¹⁾

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P133 - An Anarchist's Guide to Public/Private Collaborations

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TOPIC 5

WHEAT GENOMES AND PANGENOMES

P134 - Annotation Is the New Bottleneck in Plant Genomics: Frame-Sensitive Detection of CDS Discrepancies with CDScompare, Applied to Hexaploid Wheat

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P135 - Towards Developing a Pangenome and Haplotype Catalogue for Yield and Yield Related Traits in Wheat

Anu Chitikineni ⁽¹⁾ - **Yan Huang** ⁽¹⁾ - **Chengzhi Jiao** ⁽²⁾ - **Yongchao Hao** ⁽²⁾ - **Kefei Chen** ⁽³⁾ - **Dion Bennett** ⁽⁴⁾ - **Zhonghua Chun** ⁽⁵⁾ - **Richard Harper** ⁽⁶⁾ - **Liu Xin** ⁽⁷⁾ - **Reyazul Rouf Mir** ⁽¹⁾ - **Rajeev Varshney** ⁽¹⁾

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P136 - Studing fusarium head blight resistance in durum wheat through snp-based linkage analysis

Pasqualina Colasuonno ⁽¹⁾ - **Iliaria Marcotuli** ⁽¹⁾ - **Maria Simone** ⁽¹⁾ - **Davide Caranfa** ⁽¹⁾ - **Stefania Lucia Giove** ⁽¹⁾ - **Rita Milvia De Miccolis Angelini** ⁽¹⁾ - **Agata Gadaleta** ⁽¹⁾

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P137 - Genetic Variation and Association Mapping Studies in Elite Spring Bread Wheat Genotypes for Yield and Other Agronomic Traits under Irrigated and Rainfed Environments

Zakaria El Gataa ⁽¹⁾ - **Rania Gamal** ⁽²⁾ - **Wuletaw Tadesse** ⁽³⁾

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P138 - QTL mapping of Fusarium head blight resistance in durum wheat using near-isogenic lines

Agata Gadaleta ⁽¹⁾ - **Stefania Lucia Giove** ⁽¹⁾ - **Iliaria Marcotuli** ⁽¹⁾ - **Pasqualina Colasuonno** ⁽¹⁾

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P139 - Identification and Analysis of the TCP Gene Family in Wheat

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P140 - Genome assembly and annotation of bread wheat and synthetic hexaploid wheat lines as a resource for structural variation analysis and leaf rust resistance gene discovery

Bosen Jia ⁽¹⁾ - **Sylvie Cloutier** ⁽²⁾ - **Frank You** ⁽²⁾ - **Tara Edwards** ⁽¹⁾ - **Chi Dawn** ⁽¹⁾ - **Chunfang Zheng** ⁽¹⁾ - **Madeleine Lévesque-Lemay** ⁽¹⁾ - **Brent McCallum** ⁽³⁾ - **Colin Hiebert** ⁽³⁾ - **Leslie Bezte** ⁽³⁾ - **Elsa Reimer** ⁽³⁾ - **Curt McCartney** ⁽⁴⁾ - **Curtis Pozniak** ⁽⁵⁾ - **Joel Ens** ⁽⁵⁾

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P141 - De-novo annotation of the wheat pangenome reveals complexity and diversity of the hexaploid wheat pan-transcriptome

Thomas Lux ⁽¹⁾ - **Benjamin White** ⁽²⁾ - **Rachel Rusholme-Pilcher** ⁽²⁾ - **Angéla Juhász** ⁽³⁾ - **Curtis Pozniak** ⁽⁴⁾ - **Manuel Spannagl** ⁽¹⁾ - **Anthony Hall** ⁽²⁾ - **10+ Wheat Genome Project** ⁽⁴⁾

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P142 - Transposable Element Exaptation as a Source of Gene Innovation in Bread Wheat

Flavia Mascagni ⁽¹⁾ - **Filippo Giuseppe Marino** ⁽¹⁾ - **Gabriele Usai** ⁽¹⁾ - **Samuel Simoni** ⁽¹⁾ - **Marco Castellacci** ⁽¹⁾ - **Alberto Vangelisti** ⁽¹⁾ - **Tommaso Giordani** ⁽¹⁾ - **Lucia Natali** ⁽¹⁾ - **Andrea Cavallini** ⁽¹⁾

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P143 - Use of AI in wheat databases: overview and prospects

Alaux Michael ⁽¹⁾ - **Caccamo Mario** ⁽²⁾ - **Dyer Sarah** ⁽³⁾ - **Edwards David** ⁽⁴⁾ - **Hassani-Pak Keywan** ⁽⁵⁾ - **Sen Taner** ⁽⁶⁾

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P144 - High-Resolution Mapping of the 5B-7B Reciprocal Translocation in Wild Emmer Wheat via De Novo Assembly

Kazusa Nishimura ⁽¹⁾ - **Koichiro Ushijima** ⁽¹⁾ - **Yasuo Yasui** ⁽²⁾ - **Nina Takano** ⁽¹⁾ - **Ryohei Nakano** ⁽³⁾ - **Yuki Monden** ⁽¹⁾ - **Kenji Kato** ⁽¹⁾ - **Hidetaka Nishida** ⁽¹⁾

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P145 - k-mer based approaches to exploit haplotypes and introgressions from genebank collections

Jesus Quiroz Chavez ⁽¹⁾

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P146 Genomic Gain and Loss Estimation in the D genome of Asian Wheat Landraces and Modern Cultivars Inferred from Pangenome Graph

Van Tuan Anh Nguyen ⁽¹⁾ - **Shunsuke Yoshioka** ⁽²⁾ - **Katharina Jung** ⁽²⁾ - **Kentaro Shimizu** ⁽²⁾ - **Shuheii Nasuda** ⁽¹⁾

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P147 - From k-mers to candidates: Dissecting structural diversity and novel resistance haplotypes at the wheat Yr47/Lr52 locus

Bernice Waweru ⁽¹⁾ - **Burkhard Steuernagel** ⁽²⁾ - **Rachel Goddard** ⁽³⁾ - **Ryan Joynson** ⁽³⁾ - **Isidore Ambroise Diouf** ⁽⁴⁾ - **Cristobal Uauy** ⁽¹⁾

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P148 - Bioinformatics Analysis of the ADK Gene Family in Wheat

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TOPIC 6

WHEAT FUNCTIONAL GENOMICS

P149 - Harnessing Skim-Sequencing for High-Throughput Genomic Analysis in Wheat and Wild Relatives

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P150 - Wheat genotype impacts plant responses to biosolutions

Claire Benezech ⁽¹⁾ - **Valentine Fontaine** ⁽¹⁾ - **Louis-Valentin Meteignier** ⁽¹⁾ - **Jean-Benoit Morel** ⁽¹⁾ - **Marie-Emmanuelle Saint Macary** ⁽²⁾

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P151 - TaPIF3 integrates light and gibberellin responses to control chloroplast development and growth in wheat

Daisy Bown ⁽¹⁾ - **Ben Sibbett** ⁽¹⁾ - **Lorraine E. Williams** ⁽¹⁾ - **Peter Hedden** ⁽²⁾ - **Stephen G. Thomas** ⁽³⁾ - **Matthew J. Terry** ⁽¹⁾

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P152 - Breaking the Silence: Understanding Recombination Suppression in Wheat Wild Gene Introgressions

Floriane Chéron ⁽¹⁾ - **Luxi Yan** ⁽¹⁾ - **Isabelle Nadaud** ⁽¹⁾ - **Pierre Sourdille** ⁽¹⁾

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P153 - Transcriptome Analysis Of Durum Wheat Under Heat Stress

Boris Demenou ⁽¹⁾ - **Saad En Naimani** ⁽²⁾ - **Matthieu Bogard** ⁽²⁾

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P154 - Assessing aquaporin phospho-regulation and drought response relationships in wheat

Joseph Esimu ⁽¹⁾ - **Annamaria De Rosa** ⁽¹⁾ - **Samantha McGaughey** ⁽¹⁾ - **Rose Zhang** ⁽¹⁾ - **Alison Bentley** ⁽²⁾ - **Gonzalo Estavillo** ⁽²⁾ - **Jessica Hyles** ⁽²⁾ - **Caitlin Byrt** ⁽¹⁾

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P155 - OPRIII-B1 copy number variation association with root system architecture (RSA) and growth dynamics in tetraploid wheat

Nikolay Govta ⁽¹⁾ - **Gal Shaked-Raz** ⁽¹⁾ - **Hanan Sela** ⁽¹⁾ - **Gilad Gabay** ⁽²⁾ - **Jorge Dubcovsky** ⁽³⁾ - **Tzion Fahima** ⁽¹⁾ - **Tamar Krugman** ⁽¹⁾

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P156 - Environment-Dependent Epigenetic Modulation of Stem Solidness in Wheat

Arpit Gaur ⁽¹⁾ - **Duncan Pantos** ⁽¹⁾ - **Andrew Lehrenz** ⁽¹⁾ - **Suchismita Mondal** ⁽¹⁾

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P157 - Deciphering the transgressive yield in commercial cultivar ND5181 through the lens of transcriptional modules

Zhe Chen ⁽¹⁾ - **Qiuyuan Li** ⁽¹⁾ - **Lingfeng Miao** ⁽¹⁾ - **Danyang Zhao** ⁽¹⁾ - **Yongming Chen** ⁽¹⁾ - **Yanhong Liu** ⁽¹⁾ - **Shiqi Chen** ⁽¹⁾ - **Chenji Zhang** ⁽¹⁾ - **Zhengzhao Yang** ⁽¹⁾ - **Jie Liu** ⁽¹⁾ - **Zhaorong Hu** ⁽¹⁾ - **Yufeng Zhang** ⁽¹⁾ - **Mingshan You** ⁽¹⁾ - **Huiru Peng** ⁽¹⁾ - **Zhongfu Ni** ⁽¹⁾ - **Qixin Sun** ⁽¹⁾ - **Jiewen Xing** ⁽¹⁾ - **Weilong Guo** ⁽¹⁾

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P158 - Integrating GWAS, Haplotype Mapping and Genomic Selection to Unlock the Diversity of Ancient Indian Dwarf Wheat (*Triticum sphaerococcum*) for Biotic, Abiotic Stresses, Nutrition and Nitrogen use efficiency

Farkhandah Jan ⁽¹⁾ - **Mukesh Rathore** ⁽¹⁾ - **Nikita Aggarwal** ⁽¹⁾ - **Mahpara Bashir** ⁽¹⁾ - **Pawanjeet Kaur** ⁽¹⁾ - **Rohit Kumar** ⁽¹⁾ - **Mohd Anwar Khan** ⁽¹⁾ - **Sundeep Kumar** ⁽²⁾ - **Anu Chitikineni** ⁽³⁾ - **Rajeev K Varshney** ⁽³⁾ - **Reyazul Rouf Mir** ⁽³⁾

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P159 - Refining the candidate region of a major gene Ymhk responsible for resistance to wheat yellow mosaic virus

Kenji Kawaguchi ⁽¹⁾ - **Takehiro Ohki** ⁽²⁾ - **Kazumitsu Onishi** ⁽³⁾ - **Koichi Hatta** ⁽⁴⁾ - **Fuminori Kobayashi** ⁽⁵⁾ - **Toshiharu Shuri** ⁽⁴⁾

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P160 - Dynamic atlas of histone modifications and gene regulatory networks in endosperm of bread wheat

Yuqi Li ⁽¹⁾ - **Chao He** ⁽¹⁾ - **Siteng Bi** ⁽¹⁾ - **Chengxiang Song** ⁽¹⁾ - **Heping Zhang** ⁽¹⁾ - **Xintong Xu** ⁽¹⁾ - **Qiang Li** ⁽¹⁾ - **Sulaiman Saeed** ⁽¹⁾ - **Wei Chen** ⁽¹⁾ - **Chunjie Zhao** ⁽¹⁾ - **Caixia Lan** ⁽¹⁾ - **Handong Su** ⁽¹⁾ - **Hailiang Mao** ⁽¹⁾ - **Wenhao Yan** ⁽¹⁾

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P161 - Investigating the Regulatory Mechanism of VRN2 and VRN3 in Mediating Adaptation to Photoperiod and Vernalization in Wheat (*Triticum aestivum* L)

Ankui Liu ⁽¹⁾

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P162 - The investigation of genetic control of leaf senescence in wheat

Yalin Liu ⁽¹⁾ - **Chris Buckley** ⁽¹⁾ - **Mike Haydon** ⁽¹⁾

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P163 - QTL Mapping for Sulfur Utilization Efficiency Traits in Wheat Seedlings

Long Teng Ma ⁽¹⁾ - **Jia Li Li** ⁽¹⁾ - **Ying Hua Su** ⁽¹⁾ - **Yan Zhao** ⁽¹⁾

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P164 - Breeding Implications of Wheat Tiller-1 (WT-1) in Optimizing Tiller Architecture and Yield Potential

Rizwana Maqbool ⁽¹⁾ - **Ragupathi Nagarajan** ⁽²⁾ - **Mutti Jasdeep** ⁽³⁾ - **Kulvinder Gill** ⁽⁴⁾

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P165 - TaRCR1-A enhances wheat regeneration by modulating cytokinin levels via CKX activation

Hui Meng ⁽¹⁾ - **Ke Xin Gao** ⁽¹⁾ - **Liang-Zi Zhou** ⁽¹⁾ - **Ying Hua Su** ⁽¹⁾

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P166 - Investigating the Influence of Genomic Location: Gene Expression and Fusarium Head Blight Response in Wheat-Rye introgression lines.

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P167 - Identification of novel resistance loci to Septoria tritici blotch (STB) in winter wheat using Genome-Wide Association Mapping

Dominika Piaskowska ⁽¹⁾ - **Urszula Piechota** ⁽¹⁾ - **Magdalena Radecka-Janusik** ⁽¹⁾ - **Piotr Słowacki** ⁽¹⁾ - **Paweł Czembor** ⁽¹⁾

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P168 - Spatial transcriptomic dissection of floral meristem fate in multi-ovary and single-ovary wheat

Yue Qu ⁽¹⁾ - **Cong Tan** ⁽²⁾ - **Guilherme V. Yoshikawa** ⁽¹⁾ - **Scott A. Boden** ⁽¹⁾

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P169 - From Triticeae to Avenae: Translational Dissection of the miR156/SPL and VRN Modules to fine-tune flowering in Hexaploid Oat

Mehtab Singh ⁽¹⁾ - **Sharanaya Tripathi** ⁽¹⁾ - **Arvind Ambalatharasan** ⁽¹⁾ - **Rajvinder Kaur** ⁽¹⁾ - **Jaswinder Singh** ⁽¹⁾

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P170 - Genome-wide association analysis of wheat core collection based on grain protein content

Jae-Han Son ⁽¹⁾ - **ChanHyun Choi** ⁽¹⁾ - **Myoung-Goo Choi** ⁽¹⁾ - **Jun-Seok Choi** ⁽¹⁾ - **Myoung-Hui Lee** ⁽¹⁾ - **Min-Ju Kim** ⁽¹⁾ - **Chon-Sik Kang** ⁽¹⁾

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P171 - SQUAMOSA Promoter Binding-Like (SPL) Proteins interact with Pullulanase to Regulate Starch Metabolism in Wheat

Sharanya Tripathi ⁽¹⁾ - **Zhou Zhou** ⁽²⁾ - **Arvind Ambalatharasan** ⁽¹⁾ - **Mehtab Singh** ⁽¹⁾ - **Rajvinder Kaur** ⁽³⁾ - **Jaswinder Singh** ⁽¹⁾

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P172 - TaERE gene improves shoot regeneration and transformation efficiency in wheat

Xin Yu Wang ⁽¹⁾ - **Feng Jie Liu** ⁽¹⁾ - **Liang-Zi Zhou** ⁽¹⁾ - **Ying Hua Su** ⁽¹⁾

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P173 - Telomere-to-telomere genome assembly reveals the genomic architecture of disease resistance and yield coordination in elite wheat YM33

Yating Wang ⁽¹⁾

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P174 - Consideration on the design of inflorescence for high yield potential of wheat

Yi Peng Wang ⁽¹⁾ - **Liang-Zi Zhou** ⁽¹⁾ - **Ying Hua Su** ⁽¹⁾

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P175 Genetic Dissection of End-use Quality in Wheat to Facilitate Breeding

Ruijie Zhang ⁽¹⁾ - **Yijie Liu** ⁽¹⁾ - **Xiaobang Zhang** ⁽¹⁾ - **Tao Yang** ⁽¹⁾ - **Tianqi Kang** ⁽¹⁾ - **Longfei Wu** ⁽¹⁾ - **Mingde Liu** ⁽¹⁾ - **Yuhan Zhang** ⁽¹⁾ - **Yizhong Miao** ⁽¹⁾ - **Zhongfu Ni** ⁽¹⁾ - **Qixin Sun** ⁽¹⁾ - **Yingyin Yao** ⁽¹⁾

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P176 - Genetic and molecular dissection of brassinosteroid-regulated plant architecture in barley

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P177 - A Spatial Transcriptomic Atlas of Early Wheat Spike Development

Xiang Zhang ⁽¹⁾ - **Liang-Zi Zhou** ⁽¹⁾ - **Ying Hua Su** ⁽¹⁾

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P178 - Multi-omics analyses uncover regulatory networks governing flavonoid biosynthesis in *Triticum aestivum*

Yueqi Zhang ⁽¹⁾ - **Wei Chen** ⁽¹⁾

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TOPIC 7

INNOVATIVE WHEAT BREEDING

P179 - The Establishment of the First Speed Breeding Facility in Central Asia and Fine-Tuning of Its Protocol

Aibek Abduakassov ⁽¹⁾ - **Kanat Yermekbayev** ⁽¹⁾

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P180 - Phenological adjustment: a tool for developing advanced durum wheat lines adapted to Chile Mediterranean rainfed areas

Christian Alfaro Jara ⁽¹⁾ - **Marcela Opazo** ⁽²⁾ - **Felipe Rubilar** ⁽³⁾ - **Iván Matus** ⁽⁴⁾ - **Dalma Castillo** ⁽⁴⁾

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P181 - Wheat: staple and strategic crop in Uzbekistan

Oybek Amanov ⁽¹⁾ - **Diyor Juraev** ⁽¹⁾ - **Sherzod Dilmurodov** ⁽¹⁾ - **Nurzod Boysunov** ⁽¹⁾

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P182 - Improving Lr34 Adult Plant Rust Resistance in Wheat

Saeid Babaei ⁽¹⁾ - **Peng Zhang** ⁽²⁾ - **Smriti Singh** ⁽²⁾ - **Rohit Mago** ⁽¹⁾ - **Evans Lagudah** ⁽¹⁾ - **Ming Luo** ⁽¹⁾ - **Michael Ayliffe** ⁽¹⁾

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P183 - Genomic prediction of stem structural biomass uncovers productivity trade-off under Mediterranean climate

Simeon Ntawuguranayo ⁽¹⁾ - **Roy Sadeh** ⁽¹⁾ - **Molla Geb Taye** ⁽¹⁾ - **Hanan Sela** ⁽²⁾ - **Ittai Herrmann** ⁽¹⁾ - **Zvi Peleg** ⁽¹⁾ - **Roi Ben-David** ⁽³⁾

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P184 - CRISPR/Cas9-mediated mutagenesis of the RING-type E3 ubiquitin ligase, TaGW2, in the elite Canadian cultivar AAC Brandon increases grain size and weight but reduces total grain number per plant

Andriy Bilichak ⁽¹⁾ - **Louie Lopus** ⁽¹⁾ - **Zhen Yao** ⁽¹⁾ - **Curt McCartney** ⁽²⁾ - **Brent McCallum** ⁽¹⁾ - **Sean Walkowiak** ⁽³⁾ - **Santosh Kumar** ⁽⁴⁾ - **Lovemore Malunga** ⁽¹⁾

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P185 - Introgression and in-field validation of stem solidness from *Thinopyrum ponticum* into adapted Canadian hexaploid wheat germplasm

Martha Liliana Bonilla Betancourt ⁽¹⁾ - **Pierre Hucl** ⁽¹⁾ - **Carlos Erazo** ⁽¹⁾ - **Curtis Pozniak** ⁽¹⁾ - **Adam Carter** ⁽¹⁾
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P186 - Advancing Fusarium Head Blight Resistance in Wheat: Genetic Gains and Genomic Selection Strategies

Charlotte Brault ⁽¹⁾ - **Emily Conley** ⁽¹⁾ - **Andrew Read** ⁽²⁾ - **Harsimardeep Gill** ⁽¹⁾ - **Sarah Blecha** ⁽²⁾ - **Andrew Green** ⁽³⁾ - **Karl Glover** ⁽⁴⁾ - **Jason Cook** ⁽⁵⁾ - **Ruth Dill-Macky** ⁽⁶⁾ - **Jason Fiedler** ⁽⁷⁾ - **James Anderson** ⁽¹⁾
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P187 - Genomic strategies to accelerate genetic gain in wheat (Wheatboost)

Thomas Brown ⁽¹⁾
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P188 - John Innes Centre - Wheat Transformation and Gene Editing

Valentina Buffagni ⁽¹⁾ - **Mark A. Smedley** ⁽¹⁾ - **Macarena Forner** ⁽¹⁾ - **Simon Grffiths** ⁽¹⁾ - **Sadiye Hayta** ⁽¹⁾
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P189 - Advances in Wheat Genetics in Brazil – 1991 to 2025

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P190 - Combining GRF-GIF-Enhanced Cas9 Editor Plants and a Virus-based gRNA Delivery for Functional Gene Validation in Durum Wheat

Francesco Camerlengo ⁽¹⁾ - **Ambra Viviani** ⁽¹⁾ - **Lorenzo Calzini** ⁽¹⁾ - **Alberto Tassinari** ⁽¹⁾ - **Zitong Yu** ⁽²⁾ - **Eduard Akhunov** ⁽²⁾ - **Silvio Salvi** ⁽¹⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾
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P191 - Synergistic Application of Speed Breeding for Genetic Studies and Cultivar Release in Wheat (*Triticum aestivum* L.)

Jin-Kyung Cha ⁽¹⁾ - **Hyeonjin Park** ⁽¹⁾ - **Youngho Kwon** ⁽¹⁾ - **So-Myeong Lee** ⁽¹⁾ - **Woo-Jae Kim** ⁽¹⁾ - **Jong-Hee Lee** ⁽¹⁾
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P192 - Optimisation of genetic gain for two negatively correlated traits: the case study of winter bread wheat yield and grain protein content.

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P193 - Adaptation and Quality Traits of Winter Durum Wheat Cultivars Developed in Martonvásár over the Last Decade

Mónika Cséplő ⁽¹⁾ - **Katalin Puskás** ⁽¹⁾ - **Marianna Rakszegi** ⁽¹⁾ - **Klára Mészáros** ⁽¹⁾ - **Judit Bányai** ⁽¹⁾ - **Andrea Uhrin** ⁽¹⁾ - **Péter Mikó** ⁽¹⁾ - **Gyula Vida** ⁽¹⁾
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P194 - Evaluating genetic variability and biometric indicators in bread wheat varieties: Implications for modern selection methods

Diyor Juraev ⁽¹⁾ - **Sherzod Dilmurodov** ⁽¹⁾ - **Oybek Amanov** ⁽¹⁾ - **Aziz Nurbekov** ⁽²⁾

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P195 - Implementation of Multi-Trait Rapid-Cycle Recurrent Genomic Selection in Canadian Wheat Breeding

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P196 - Responding to Yr15 Virulence to Strengthen Wheat Resistance

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P197 - A pan proteome of wheat and its use for breeding

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P198 - SNP genotyping with large, intermediate and small marker panels in hexaploid wheat

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P199 - Stem elongation phase as a key trait to improve grain number and yield: Preliminary results from BC4 lines with similar anthesis dates but advancing beginning of stem elongation

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P200 - Seven Decades of Global Impact: CIMMYT's End-to-End Framework for Accelerating Bread Wheat Breeding

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P201 - Major-Effect QTLs and Validated Markers for Improving Stripe Rust Resistance in Wheat Breeding

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P202 - Improving Genomic Prediction Accuracy for Wheat Stem Sawfly Resistance in Winter Wheat

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P203 - Haplotype-based Autoencoders for Dimensionality Reduction and Haplotype Block Effect Estimation

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P204 - Plant-plant interactions and canopy complexity in winter wheat

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P205 - The ARCs Spring wheat breeding program for the dryland winter rainfall region of the Western Cape.

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P206 - Molecular overview of Eastern Canadian winter wheat germplasm for agronomic, quality and disease resistance traits using KASP and STS markers

Gavin Humphreys ⁽¹⁾ - **Bijendra Khadka** ⁽¹⁾ - **Michel McElroy** ⁽²⁾ - **Tara Edwards** ⁽¹⁾ - **Emma Hawthorn** ⁽¹⁾ - **Helen Booker** ⁽³⁾ - **Ljiljana Tamburic-Ilincic** ⁽⁴⁾ - **Frank You** ⁽¹⁾ - **Sylvie Cloutier** ⁽¹⁾

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P207 - Identifying the genetic drivers of Wheat's endogenous Biological Nitrification Inhibition (BNI) capacity.

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P208 - MosaicFarmAI: An innovative deep learning model for accurate genomic predictions in ultra-sparse field trials

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P209 - Diallel Analysis of Local Bread Wheat (*Triticum aestivum* L.) Cultivated in Uzbekistan

Diyor Juraev ⁽¹⁾ - **Oybek Amanov** ⁽¹⁾ - **Sherzod Dilmurodov** ⁽¹⁾ - **Aziz Nurbekov** ⁽²⁾ - **Nurzod Boysunov** ⁽¹⁾

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P210 - INHERITANCE PATTERNS IN F₁ HYBRID GENERATIONS OF DURUM WHEAT

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P211 - Effect of Vrn1 and Rht8 genes on wheat performance in South Eastern Europe

Ankica Kondic-Spika ⁽¹⁾ - **Dragana Trkulja** ⁽¹⁾ - **Svetlana Glogovac** ⁽¹⁾ - **Milan Miroslavljevic** ⁽²⁾ - **Igor Vukelic** ⁽¹⁾ - **Simon Griffiths** ⁽³⁾

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P212 - Pyramiding of alien genes for high grain Fe and Zn in bread wheat using marker assisted selection

Rahul Kumar ⁽¹⁾ - **Anjali Verma** ⁽¹⁾ - **Shoeb Ahmed** ⁽¹⁾ - **Pushpendra K Gupta** ⁽¹⁾

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P213 - Western Canadian wheat breeding: the path ahead

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P214 - Root traits as Breeding Targets for Improved Nitrogen Use Efficiency in Durum Wheat

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P215 - DPFlow: A Flexible and Reproducible Pipeline for the Processing and Visualization of Multi-Sensor Drone Data for Wheat Breeding

Chun-Han Lee ⁽¹⁾ - **A.K.M. Tanbir Sazid** ⁽¹⁾ - **Michael Drzisga** ⁽¹⁾ - **Muhammad Afzal** ⁽¹⁾ - **Andreas Maurer** ⁽¹⁾

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P216 - Powerful one-dimensional scan to detect heterotic quantitative trait loci

Guoliang Li ⁽¹⁾ - **Renate Schmidt** ⁽¹⁾ - **Yusheng Zhao** ⁽¹⁾ - **Jochen Reif** ⁽¹⁾ - **Yong Jiang** ⁽¹⁾

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P217 - Loss of Dicer-like 5 induces temperature-sensitive male sterility in wheat

Azahara C. Martin ⁽¹⁾ - **Sébastien Bélanger** ⁽²⁾ - **D. Blaine Marchant** ⁽³⁾ - **Junpeng Zhang** ⁽⁴⁾ - **Madison McGregor** ⁽⁴⁾ - **Mark Smedley** ⁽⁵⁾ - **Sadiye Hayta** ⁽⁵⁾ - **Graham Moore** ⁽⁵⁾ - **Blake C Meyers** ⁽⁴⁾

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P218 - QTL for winter hardiness in western Canadian winter wheat (*Triticum aestivum* L.)

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P219 - Stigma longevity is not a major limiting factor in hybrid wheat seed production

Marina Millan Blanquez ⁽¹⁾ - **James Simmonds** ⁽²⁾ - **Nicholas Bird** ⁽³⁾ - **Yann Manes** ⁽⁴⁾ - **Cristóbal Uauy** ⁽²⁾ - **Scott Boden** ⁽⁵⁾

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P220 - Tracking Transgenes with Color: Evaluating RUBY as a Visual Marker in CRISPR-Edited Mutant Plants in triticum species

Matthew Milner ⁽¹⁾

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P221 - Changes in Pannonian wheat spike architecture during the past 90 years

Milan Miroslavljević ⁽¹⁾ - **Vladimir Aćin** ⁽¹⁾ - **Dragana Trkulja** ⁽¹⁾ - **Sanja Mikić** ⁽¹⁾ - **Ljiljana Brbaklić** ⁽¹⁾ - **Krstina Aleksić** ⁽¹⁾ - **Jovana Timić** ⁽¹⁾ - **Bojan Jocković** ⁽¹⁾

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P222 - Association mapping to identify loci associated with stripe rust adult plant resistance in hard winter wheat

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P223 - Introgression and development of tetraploid durum wheat material integrating the common wheat QTL2D_wssmv and Sbm1 resistance loci against WSSMV and SBCMV mosaics

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P224 - Genetic basis of breeding gains in yield component traits in Nordic spring wheat

Keiko Nishioka ⁽¹⁾ - **Anja Karine Ruud** ⁽¹⁾ - **Morten Lillemo** ⁽¹⁾

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P225 - Identification of salt tolerant Maize-Wheat and Pearl millet-Wheat cybrid lines produced through in vitro fertilization system

Farzana Nowroz ⁽¹⁾ - **Nonoka Onda** ⁽¹⁾ - **Aya Satoh** ⁽¹⁾ - **Takayoshi Ishii** ⁽²⁾ - **Takashi Okamoto** ⁽¹⁾

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P226 - Effects of High Temperature Stress during Grain Filling on Yield and Grain Quality of Bread Wheat Genotypes

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P227 - Comparative Analysis of Durum Wheat Varieties with Different Breeding Origins Across Multiple Cultivation Systems: Insights into Nitrogen Metabolism Gene Expression

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P228 - TRANSFERRING RYE CHROMOSOME IN TO WHEAT USING TRITICALE AS BRIDGE SPECIES FOR LEAF RUST RESISTANCE

Dharam Pal ⁽¹⁾ - **Anjali Pal** ⁽¹⁾ - **SC Bhardwaj** ⁽²⁾ - **Subodh Kumar** ⁽²⁾ - **Niranjana M** ⁽³⁾

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P229 - Improving Glutenin Subunit Genotypes to Develop "K-ExtraStrong" Wheat for Strategic Blending

Hyeonjin Park ⁽¹⁾ - **Jin-Kyung Cha** ⁽¹⁾ - **So-Myeong Lee** ⁽¹⁾ - **Jin-Woo Bae** ⁽¹⁾ - **Ye Rin An** ⁽¹⁾ - **Woo-Jae Kim** ⁽¹⁾

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P230 - Marker-assisted introgression of effective yellow rust (Pst) resistance loci into triticale

Piotr Słowacki ⁽¹⁾ - **Urszula Piechota** ⁽¹⁾ - **Magdalena Radecka-Janusik** ⁽¹⁾ - **Dominika Piaskowska** ⁽¹⁾ - **Magdalena Pałuba** ⁽¹⁾ - **Paweł Czembor** ⁽¹⁾

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P231 - Integrating Genomic Selection and Biofortification to Improve Grain Nutritional Quality and Productivity in Wheat

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P232 - Innovations paving (half)-way towards hybrid wheat breeding

Jochem Reif ⁽¹⁾

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P233 - Physiological diversity and trait composition in elite CIMMYT bread wheat: implications for yield potential, stress adaptation, and pre-breeding

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P234 - Integrating Grain Imaging for Deoxynivalenol (DON) Prediction using Fusarium-Damaged Kernel Assessment in Canadian Wheat

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P235- Biological Nitrification Inhibition in Wheat: from genetic integration to mechanistic understanding, field validation, and deployment pathways

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P236 - Assessment of Tall and Short Plant Height Controlling Alleles on Wheat Adaptation and Yield Using Near-Isogenic Lines

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P237 - Power calculations for testing genetic correlation between pure- and mixture line effects in wheat breeding

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P238 - Vision for hybrid wheat through key male trait integration: A path towards optimizing hybrid grain set

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P239 - Towards accelerating nitrogen use efficiency in five Australian wheat varieties through molecular breeding

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P240 - Replaying The Green Revolution in Wheat Landraces Through Advanced Gene Editing

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P241 - Toward Resilient Wheat Production: Stress Physiology and Disease Resistance in Hybrids

Valentina Spanic ⁽¹⁾ - **Katarina Šunić Budimir** ⁽¹⁾ - **Jurica Duvnjak** ⁽¹⁾ - **Ivan Varnica** ⁽²⁾ - **Goran Jukic** ⁽²⁾ - **Ivna Štolfa Čamagajevac** ⁽³⁾ - **Rosemary Vukovic** ⁽³⁾ - **Hrvoje Sarcevic** ⁽⁴⁾
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P242 - Decoding Wheat G×E Dynamics: Insights from Elite Germplasm and BNI (Biological Nitrification Inhibition) lines in Australia

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P243 - Genetic improvement of FHB and DON resistance by combining the Fhb1 gene with additional resistance QTL, and favorable morphological traits, in winter wheat population

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P244 - Decentralized wheat breeding pipeline: Serving the region from the hotspot

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P245 - West and Central Africa Wheat Development Network (WECAWheat): Leveraging Partnerships for Wheat Transformation in Africa

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P246 - Why people don't prefer to do gamma irradiation mutation breeding using wheat seed

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P247 - Haplotype-Based Identification and Deployment of Rust Resistance Loci in Elite Wheat

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P248 - Unlocking the Genetic Potential of Central Asian Wheat through Molecular Breeding, Genomic Selection and Speed Breeding

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P249 - International Partnership and Investment on capacity building Enhanced Ethiopian Wheat Productivity

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P250 - Genomic prediction with haplotype blocks in wheat

Carola Zenke-Philippi ⁽¹⁾ - **Philipp Georg Heilmann** ⁽¹⁾ - **Yohannes Fekadu Difabachew** ⁽¹⁾

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P251 - Multiplex Genome Editing Enables Simultaneous Improvement of Multiple Elite Traits in Wheat

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TOPIC 8

DEVELOPING CLIMATE-SMART WHEAT IN THE CONTEXT OF ABIOTIC STRESSES

P252 - From Farmers' Fields to Future Harvests: Yield and Quality Evaluation of New Wheat Varieties under Dry Season Conditions in Morocco

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P253 - Genomic and spectral signatures of PSII heat tolerance in cereals

Hanna Amoanima-Dede ⁽¹⁾ - **Joy Ojo** ⁽¹⁾ - **Rebecca Thistlethwaite** ⁽²⁾ - **Li Li** ⁽³⁾ - **Robert Cope** ⁽⁴⁾ - **Beata Sznajder** ⁽⁵⁾ - **Richard M. Trethowan** ⁽²⁾ - **Owen K. Atkin** ⁽⁶⁾ - **Onoriode Coast** ⁽¹⁾

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P254 - Genetic dissection of root architectural and biomass traits in durum wheat landraces using rhizotron experiments

Genet Atsbeha Fiseha ⁽¹⁾ - **Muhammad Awais Farooq** ⁽¹⁾ - **Congying Zhou** ⁽¹⁾ - **Martina Bruschi** ⁽¹⁾ - **Manar Makoul** ⁽²⁾ - **Francisco Pinto** ⁽³⁾ - **Chunyi Liu** ⁽¹⁾ - **Xinyinh Zheng** ⁽¹⁾ - **Cristian Forestan** ⁽¹⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Matthew Reynolds** ⁽³⁾ - **Rod J Snowden** ⁽²⁾ - **Enrico Noli** ⁽¹⁾ - **Silvio Salvi** ⁽¹⁾ - **Eric Ober** ⁽⁴⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾

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P255 - Genomic loci for preharvest sprouting resistance in spring wheat (*Triticum aestivum* L.)

Ramanpreet Ramanpreet ⁽¹⁾ - **Gurkamal Kaur** ⁽¹⁾ - **Muhammad Iqbal** ⁽²⁾ - **Curt McCartney** ⁽¹⁾ - **Dean Spaner** ⁽²⁾ - **Belay Ayele** ⁽³⁾

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P256 - Insights into the role of arbuscular mycorrhizal symbiosis in environmental stress tolerance of different durum wheat genotypes

Raffaella Maria Balestrini ⁽¹⁾ - **Luca Giovannini** ⁽²⁾ - **Giulio Panicucci** ⁽³⁾ - **Francesca Ieri** ⁽³⁾ - **Fabiano Sillo** ⁽²⁾ - **Elisa Zampieri** ⁽²⁾ - **Francesco Bergese** ⁽²⁾ - **Berivan Özlem Gümüs** ⁽⁴⁾ - **Vicent Arbona** ⁽⁴⁾ - **Miguel González Guzmán** ⁽⁴⁾ - **Giorgia Batelli** ⁽⁵⁾ - **Francesco Sestili** ⁽⁶⁾ - **Daniel Savatin** ⁽⁶⁾ - **Salvatore Esposito** ⁽⁵⁾

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P257 - Hormonal and thermopriming of seeds impart acquired terminal heat stress tolerance through modulation of proteostasis in wheat *Triticum aestivum* L.

Sharmistha Barthakur ⁽¹⁾

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P258 - Response to High Temperature Stress in Bread Wheat Genotypes: A Comparative Evaluation of Organic and Conventional Production Systems

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P259 - Introgression of Rye Chromosome Arm 1RS Enhances Climate Resilience in German Winter Wheat

Yeneneh Bekele-Reba ⁽¹⁾ - **Lorenz Bülow** ⁽²⁾ - **Anne Zaar** ⁽³⁾ - **Michael Koch** ⁽⁴⁾ - **Adalbert Bund** ⁽⁵⁾ - **Carsten Reinbrecht** ⁽⁶⁾ - **Jost Dörnte** ⁽⁷⁾ - **Hubert Kempf** ⁽⁸⁾ - **Josef Holzapfel** ⁽⁸⁾ - **Marco Stucke** ⁽⁶⁾ - **Jörg Plieske** ⁽⁷⁾ - **Lorenz Hartl** ⁽⁵⁾ - **Volker Mohler** ⁽⁵⁾ - **Stefan Streng** ⁽⁶⁾ - **Benjamin Stich** ⁽⁹⁾ - **Bernd Hackauf** ⁽¹⁰⁾

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P260 - Identification and functional characterization of Iron-binding Proteins of bread wheat using hierarchical computational approaches.

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P261 - Development and characterization of salt tolerant wheat variety through integrated breeding approaches

Sajida Bibi ⁽¹⁾ - **Abdul Rusul Awan** ⁽²⁾ - **Muhammad Akhter** ⁽¹⁾

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P262 - Increased night temperature and seed rate effects on grain weight analysed by graphic-mathematical modelling the plastic and elastic growth during grain filling of wheat

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P263 Is yield plasticity a conservative genotypic attribute? Responses of contrasting cultivars to a broad range of conditions

Rafael Carrera ⁽¹⁾ - **Roxana Savin** ⁽¹⁾ - **Gustavo Slafer** ⁽¹⁾ - **Santiago Tamagno** ⁽¹⁾

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P264 - Remodeling of lipid metabolism in wheat anthers under high temperature stress

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P265 - Developing a high-throughput platform for anatomical phenotyping in plants

Yikeng Cheng ⁽¹⁾

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P266 - Developing a high-throughput platform for anatomical phenotyping in plants

Yikeng Cheng ⁽¹⁾ - **Jiawei Shi** ⁽¹⁾ - **Zhanghan Pang** ⁽¹⁾ - **Kejie Chai** ⁽¹⁾ - **Zhen Jia** ⁽¹⁾ - **Bingqian Hao** ⁽¹⁾ - **Wanneng Yang** ⁽¹⁾ - **Qiang Li** ⁽¹⁾

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P267 - Cold acclimation induced freezing tolerance and recovery dynamics in winter and spring wheat cultivars

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P268 - Plant growth promoter Rhizobacteria-mediation for improving drought tolerance in spring bread wheat (*Triticum aestivum*).

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P269 - Farmer-Validated Performance of Climate-Resilient Bread Wheat Varieties Under Real Production Conditions: Breaking the Yield Ceiling in Moroccan Dryland Systems

Imane El ftouh ⁽¹⁾ - **Fatima ezzahra oudrhiri** ⁽¹⁾ - **Ghizlane Diria** ⁽¹⁾ - **Mona Taghouti** ⁽¹⁾ - **Fatima Gaboun** ⁽¹⁾ - **Rabha Abdelwahed** ⁽¹⁾

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P270 - Genome-Wide Association Study for Identifying Drought-Tolerance MTAs Associated with Grain Yield and Related Traits in Spring Bread Wheat (*Triticum aestivum* L.)

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P271 - Characterization of genes to induce early flowering in spring wheat for escaping terminal heat stress

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P272 - Genome-Wide Identification and Functional Characterization of Ta4CL Genes in Wheat: Key Roles in Salt Tolerance, Cold Acclimation, and Lignin Biosynthesis

Fatemeh Gholizadeh ⁽¹⁾ - **Tibor Janda** ⁽¹⁾

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P273 - Linking root traits to nitrogen use efficiency in winter wheat

Luc Gujer ⁽¹⁾ - **Grace Ochieng** ⁽¹⁾ - **Agim Ballvora** ⁽¹⁾ - **Annaliese Mason** ⁽¹⁾

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P274 - Roots Vertical Distribution and Physiological Characteristics in High-Yielding and Waterlogging-Tolerant Wheat

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P275 - Flowering time governs responses to temperature stress: seasonal shifts and asymmetry in wheat yield

Felicity Harris ⁽¹⁾ - **Pengcheng Hu** ⁽²⁾ - **Nectarios Costadopolous** ⁽¹⁾ - **Corinne Celestina** ⁽³⁾ - **James Hunt** ⁽³⁾ - **Kenton Porker** ⁽⁴⁾ - **Rick Graham** ⁽⁵⁾ - **Blakely Paynter** ⁽⁶⁾ - **Hammad Khan** ⁽⁷⁾ - **Kelly Angel** ⁽⁸⁾ - **Matthew Tucker** ⁽⁹⁾ - **Victor Sadras** ⁽¹⁰⁾

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P276 - Integrated genome-wide association analysis of grain yield and adaptive traits in bread wheat across contrasting environments in the MENA region

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P277 - Non-histone deacetylation of TaAREB3 by TaHDA8 fine-tunes root elongation and drought resilience in wheat

Zehui Liu ⁽¹⁾ - **Qun Yang** ⁽¹⁾ - **Mingming Xin** ⁽¹⁾ - **Yingyin Yao** ⁽¹⁾ - **Zhongfu Ni** ⁽¹⁾ - **Qixin Sun** ⁽¹⁾ - **Zhaorong Hu** ⁽¹⁾

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P278 - Variation in weather conditions have significant effects on winter wheat flag leaf stomatal traits

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P279 - Spatio-temporal dynamics of heat sensitivity: how reproductive developmental gradients govern wheat grain-set processes

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P280 - Genomic breeding for heat tolerance at ICARDA

Hafssa Kabbaj ⁽¹⁾ - **Amadou Tidiane Sall** ⁽²⁾ - **ANNA Backhaus** ⁽³⁾ - **Rodomiro Ortiz** ⁽⁴⁾ - **ZAKARIA KEHEL** ⁽⁵⁾ - **Filippo Bassi** ⁽¹⁾

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P281 - Physiological Basis of Spike Fertility Variation in Wheat

Hassan Karim ⁽¹⁾ - **Celia Rasines Gandarillas** ⁽¹⁾ - **Roxana Savin** ⁽¹⁾ - **Gustavo Slafer** ⁽¹⁾

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P282 - Identification and validation of an important waterlogging QTL on chromosome 6A in spring wheat.

Anjali Khadka ⁽¹⁾ - **Anja Karine Ruud** ⁽²⁾ - **Tove Kristina Sundgren** ⁽³⁾ - **Tatiana Belova** ⁽⁴⁾ - **Morten Lillemo** ⁽²⁾

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P283 - Optimising critical periods to maximise resource availability and crop yields in south-eastern Australia

Kate Maddern ⁽¹⁾ - **Bonnie Flohr** ⁽²⁾ - **Neil Hart** ⁽¹⁾

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P284 - Physiological drivers of yield variation between modern durum wheats and Senatore Cappelli under contrasting growing conditions

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P285 - A water-saving drought survival strategy in a wheat TILLING mutant involves metabolic and phosphorylation reprogramming

Ryosuke Mega ⁽¹⁾ - **Shun-ichiro Hirata** ⁽²⁾ - **Kota Yamashita** ⁽³⁾ - **Hinano Takase** ⁽³⁾ - **Taishi Umezawa** ⁽³⁾ - **Yasuko Watanabe** ⁽⁴⁾ - **June-Sik Kim** ⁽⁴⁾ - **Tomoyuki Kosaka** ⁽²⁾ - **Akihiro Nieda** ⁽²⁾ - **Hisashi Tsujimoto** ⁽⁵⁾

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P286 - Black Glumes: A Genetic Trait That Enhances Dry Down in Wheat

Daniela Moraes ⁽¹⁾ - **pierre Hucl** ⁽¹⁾ - **Adam Carter** ⁽¹⁾

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P287 - Genetic analysis of root system architecture and waterlogging tolerance in the Japanese Wheat Core collection

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P288 - Sensitivity to heat stress of wheat O₂-based gas exchange differs between leaves and spikes

Joy Ojo ⁽¹⁾ - **Hanna Amoanimaa-Dede** ⁽¹⁾ - **Elena Dehnavi** ⁽²⁾ - **Rebecca Thistlethwaite** ⁽³⁾ - **Fiona Fogarty** ⁽³⁾ - **Richard M. Trethowan** ⁽³⁾ - **Owen K. Atkin** ⁽⁴⁾ - **Onoriode Coast** ⁽¹⁾

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P289 - Bridging the Adoption Gap: Participatory Validation and Predictive Analytics Drive 100% Re-Adoption of Climate-Resilient Durum Wheat in Morocco

Fatima Ezzahra Oudrhiri ⁽¹⁾ - **Imane El Ftouh** ⁽¹⁾ - **Fatima Gaboun** ⁽²⁾ - **Rabha Abdelwahed** ⁽²⁾ - **Ghizlane Diria** ⁽²⁾ - **Mona Taghouti** ⁽³⁾

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P290 - Unraveling Drought Stress Tolerance Mechanisms in Durum Wheat through RNA Sequencing Applications

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P291 - Genome wide association of fertility related traits in a collection of Spanish bread wheat landraces

Laura Pascual ⁽¹⁾ - **Andres Fernandez Borbolla** ⁽¹⁾ - **Gabriel Coll** ⁽¹⁾ - **Alvaro Carrasco Coquillat** ⁽²⁾ - **Marcos Cadarso** ⁽¹⁾ - **Matilde Lopez-Ferandez** ⁽¹⁾ - **Marina Martinez-Garcia** ⁽¹⁾

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P292 - Dissecting heat-stress tolerance mechanisms in durum wheat (*Triticum durum*) germplasm under field conditions

Roshan Paudel ⁽¹⁾ - **Eder Groli** ⁽²⁾ - **Elisabetta Frascaroli** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾ - **Karim Ammar** ⁽³⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Roberto Tuberosa** ⁽¹⁾

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P293 - Large wheat rhizosheath size enhanced root growth, diverse bacterial communities, and yield in acidic soil with high Al³⁺ content.

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P294 - Characterization of Durum Wheat (*Triticum turgidum* L. ssp. durum) tolerance to drought and terminal heat stress under Moroccan Conditions

Oumaima Rachik ⁽¹⁾ - **Moha Ferrahi** ⁽²⁾ - **Loubna Belqadi** ⁽³⁾ - **Abdelghani Nabloussi** ⁽²⁾ - **Filippo Maria Bassi** ⁽⁴⁾ - **Hafssa Kabbaj** ⁽⁴⁾

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P295 - Yield-Determining Traits Responsible for Yield Penalties Across Contrasting Environments in Elite Wheat Germplasm

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P296 - Post-anthesis short heat waves in durum wheat do not compromise breeding efforts to increase β , β -carotenoid content in grains

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P297 - Validation of Major Genes and Identification of Novel Genomic Regions for Plant Height and Heading Date in a Durum Wheat RILs using GWAS

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P298 - Mapping of QTL for stable falling number in the winter wheat cultivar 'Ellvis'

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P299 - Cascading Functional Water Balance Traits Enhance Wheat Grain Yield Under Terminal Drought

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P300 - Genotypic Variation in Wheat Under Individual and Combined Heat and Drought Stress

Md Shamsuzzaman ⁽¹⁾ - **Bettina Berger** ⁽²⁾ - **Rebecca Thistlethwaite** ⁽¹⁾ - **Abdus Sadeque** ⁽¹⁾ - **Chong Mei Dong** ⁽¹⁾ - **Richard Trethowan** ⁽¹⁾

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P301 - Genome-Wide Association Study Reveals Major SNPs Associated with Pollen Viability and Spikelet Fertility in Wheat under Heat Stress

Abu Bakar Siddique ⁽¹⁾ - **Onusha Sharmita** ⁽¹⁾ - **Zhong-Hua Chen** ⁽²⁾ - **Sergey Shabala** ⁽³⁾ - **Chenchen Zhao** ⁽¹⁾ - **Meixue Zhou** ⁽¹⁾

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P302 - Responding to a changing environment: capturing temperature regulation across wheat development

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P303 - Flowerint Locus T4 delayed flowering and suppressed spikelet outgrowth in bread wheat (*Triticum aestivum*)

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P304 - Physiological and Root Architectural Responses to Flowering-Stage Drought in a Wheat Line Carrying a *Thinopyrum* Group 3 Chromosome

Edina Türkösi ⁽¹⁾ - **Klaudia Kruppa** ⁽¹⁾ - **Éva Darkó** ⁽²⁾ - **Balázs Varga** ⁽³⁾ - **Márton György** ⁽⁴⁾ - **Zsolt Gulyas** ⁽⁵⁾ - **Kristóf Jobbágy** ⁽¹⁾ - **Kateřina Holušová** ⁽⁶⁾ - **Eszter Gaál** ⁽¹⁾ - **Balázs Kalapos** ⁽¹⁾ - **Mónika Cséplő** ⁽¹⁾ - **András Farkas** ⁽¹⁾ - **László Ivanizs** ⁽¹⁾ - **Péter Mikó** ⁽⁴⁾ - **Andrea Gulyás** ⁽¹⁾ - **Norbert Hidvegi** ⁽⁵⁾ - **Péter Kovács** ⁽¹⁾ - **András Cseh** ⁽⁷⁾ - **Márta Molnár-Láng** ⁽¹⁾ - **Jan Bartoš** ⁽⁶⁾ - **Éva Szakács** ⁽¹⁾ - **István Molnár** ⁽¹⁾

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P305- Climatic risk patterns for drought and heat stress in Spanish spring wheat: A phenology driven framework for breeding

Dolors Villegas ⁽¹⁾ - **Castilla Alejandro** ⁽²⁾ - **Rogelio Corbacho** ⁽³⁾ - **Miguel Gutiérrez** ⁽⁴⁾ - **Ernesto Igartua** ⁽¹⁾ - **David Gómez-Candón** ⁽¹⁾ - **Margarita García-Vila** ⁽⁵⁾ - **Alejandro Pérez-de-Luque** ⁽⁶⁾ - **José Antonio Jiménez-Berni** ⁽⁵⁾ - **Joseřina C. Sillero** ⁽⁶⁾

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P306 - Are Winter Wheat Yields Warming Up?

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P307 - Wheat Physiology at CIMMYT – 55 Years' Legacy and the Way Forward

Jiemeng Xu ⁽¹⁾ - **Alma Carolina RIVERA AMADO** ⁽¹⁾ - **Susanne DREISIGACKER** ⁽¹⁾ - **Carolina SAINT PIERRE** ⁽¹⁾ - **Matthew Reynolds** ⁽¹⁾

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P308 - Explicating the relationship between stay-green character, drought tolerance, and yield stability in Pakistani wheat genotypes

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P309 - How will future climate change affect wheat yield and quality?

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P310 - Future-proof crops: uncovering effects of future climate stresses on root ideotypes and impact on wheat grain nutritional quality

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TOPIC 9

DISSECTING THE WHEAT-PATHOGEN AND PEST INTERACTION

P311 - Understanding *Tilletia* spp. population structure and virulence to support wheat resistance breeding

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P312 - CResWheat: Advancing Climate-Resilient Spring Wheat Breeding in the Nordic Region

Therese Bengtsson 642TBO ⁽¹⁾ - ***Ahmed Jahoor*** ⁽²⁾ - ***Annika Johansson*** ⁽³⁾ - ***Anne Ingver*** ⁽⁴⁾ - ***Charlotte Damsgård*** ⁽⁵⁾ - ***Firuz Odilbekov*** ⁽⁶⁾ - ***Janni Hedensvang Jørgensen*** ⁽²⁾ - ***Jan T Svensson*** ⁽⁷⁾ - ***Jihad Orabi*** ⁽²⁾ - ***Jon Arne Dieseth*** ⁽⁸⁾ - ***Liina Jakobson*** ⁽⁴⁾ - ***Linda Kærgaard Nielsen*** ⁽⁵⁾ - ***Marja Jalli*** ⁽³⁾ - ***Marwan Alamrani*** ⁽¹⁾ - ***Mehran Patpour*** ⁽⁹⁾ - ***Min Lin*** ⁽¹⁰⁾ - ***Mogens Støvring Hovmøller*** ⁽⁹⁾ - ***Morten Lillemo*** ⁽¹⁰⁾ - ***Muath Alsheikh*** ⁽⁸⁾ - ***Outi Manninen*** ⁽¹¹⁾ - ***Pernille Bjarup*** ⁽²⁾ - ***Pernilla Vallenback*** ⁽⁶⁾ - ***Johanna Fonskov*** ⁽⁶⁾ - ***Reine Koppel*** ⁽⁴⁾ - ***Rodomi Ortiz*** ⁽¹⁾ - ***Ronja Wonneberger*** ⁽¹⁾ - ***Susanne Windju*** ⁽⁸⁾ - ***Tarja Niemelä*** ⁽¹¹⁾

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P313 - Characterizing racial diversity and virulence profiles of *Puccinia graminis* f. sp. *tritici* on durum wheat genotypes from the Mediterranean.

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P314 - Determination of Physiological Races of *Puccinia striiformis* f.sp. *tritici* in Iran

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P315 - Integrating Pest Management, Disease Resistance, Cadmium low uptake, and UAV Phenomics for Advancing Sustainable Wheat Production in Nordic Environments

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P316 - Identification of septoria nodorum blotch sensitivity genes in U.S. Great Plains hard winter wheat

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P317 - Addressing the Emerging Threat of Gout Fly (*Chlorops pumilionis* Bjerck.) to Sustainable Spring Wheat Production in Northern Europe

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P318 - Genetic Loci Underlying Resistance to *Ustilago tritici* in the Spring Wheat Variety Carberry

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P319 - GWAS analysis in an elite durum wheat panel uncovers stable QTLs for fusarium head blight (FHB) spike symptoms and deoxynivalenol (DON) content

Ambra Viviani ⁽¹⁾ - **Alessia Confortini** ⁽²⁾ - **Jad B Novi** ⁽³⁾ - **Eleonora Cappelletti** ⁽¹⁾ - **Sandra Stefanelli** ⁽¹⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Cristian Forestan** ⁽¹⁾ - **Roberta Ghizzoni** ⁽⁴⁾ - **Valeria Terzi** ⁽⁴⁾ - **Stefano Ravaglia** ⁽⁵⁾ - **Eder Groli** ⁽⁵⁾ - **Luigi Cattivelli** ⁽⁴⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Antonio Prodi** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾

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P320 - Phenotypic variation in disease pressure on wheat is driven by genetic variation in rust populations across different environments

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P321 - Genetic dissection of leaf rust, yellow rust and STB resistance in biparental mapping populations from *Triticum turgidum* landraces x modern cultivars

Luca Ceccato ⁽¹⁾ - **Eugenia Carini** ⁽¹⁾ - **Ambra Viviani** ⁽¹⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Jad Novi** ⁽²⁾ - **Chunyi Liu** ⁽¹⁾ - **Congying Zhou** ⁽¹⁾ - **Paola Viola** ⁽³⁾ - **Michael Chocard** ⁽³⁾ - **Carlo Invernizzi** ⁽³⁾ - **Elisabetta Frascaroli** ⁽¹⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾

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P322 - Genomics-enabled wheat breeding to accelerate development of dwarf and common bunt resistant cultivars

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P323 - Genomic Insights into Leaf Rust Resistance: Leveraging Global Germplasm for Durum Wheat Improvement

Francesca Desiderio ⁽¹⁾ - ***Matteo Bozzoli*** ⁽²⁾ - ***Chunyi Liu*** ⁽²⁾ - ***Anna Maria Mastrangelo*** ⁽³⁾ - ***Daniela Marone*** ⁽³⁾ - ***Biagio Randazzo*** ⁽⁴⁾ - ***Jad Novi*** ⁽⁵⁾ - ***Paola Viola*** ⁽⁶⁾ - ***Carlo Invernizzi*** ⁽⁶⁾ - ***Sherif Ragab Mohamed El-Areed*** ⁽⁷⁾ - ***Marcel Thierry*** ⁽⁸⁾ - ***Omar Idrissi*** ⁽⁹⁾ - ***Ali Amamou*** ⁽⁹⁾ - ***Marco Maccaferri*** ⁽²⁾ - ***Luigi Cattivelli*** ⁽¹⁾ - ***Elisabetta Mazzucotelli*** ⁽¹⁾

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P324 - Wax Biosynthesis Genes and lncRNA Regulation in Durum Wheat Resistance to Fusarium Head Blight

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P325 - Purple pericarp wheat reduces host location, feeding efficiency, and progeny development of the granary weevil *Sitophilus granarius* (L.)

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P326 - Genetic factors underlying non-host resistance in wheat against non-adapted powdery mildew

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P327 - Evaluation of yield and quality traits in moderately Fusarium head blight resistant Durum wheat lines

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P328 - Genome-wide association study of multiple disease resistances in Australia using a large-scale international wheat panel

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P329 - Absolute Quantification of Puccinia triticina in a Diverse Wheat Panel Using Droplet Digital PCR (ddPCR)

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P330 - Uncovering Novel Genetic Resistance to Fusarium Crown Rot in Watkins Wheat Landraces

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P331 - Dissecting the Genetic Architecture of Take-All Disease Resistance in Wheat Using Haplotype Analysis Based on Genome-Wide Association Studies

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P332 - Durum landraces as a valuable gene pool to uncover and map resistance to Septoria tritici blotch

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P333 - Genetic Dissection of Lesion Mimicry in Durum Wheat Identifies NLR and Receptor-Like Kinase Candidate Genes

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P334 - Cross-Species Association Mapping Reveals the Genetic Architecture of the Interaction Between Wheat and Its Powdery Mildew Pathogen

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P335 - Introgression of stripe rust adult-plant resistance from cv. Svevo into bread wheat cultivar.

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P336 - Climate Change and Pest Infestation Dynamics: AI-Driven Forecasting of Future Insect Complexes in Wheat Agroecosystems.

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P337 - FreeWheat: High-Resolution Genomics and Microphenomics of Nonhost Resistance to Rust and Mildew

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P338 - CONSEQUENCES OF MANAGEMENT PRACTICES ON DISTRIBUTION OF RUSSIAN WHEAT APHID, DIURAPHIS NOXIA, IN WHEAT PRODUCTION AREAS OF SOUTH AFRICA

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P339 - Genetic Diversity and Population Structure of Fusarium graminearum in the Northern Wheat Belt of India: A First-of-Its-Kind Study

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P340 - Genome-wide association study and Genomic prediction for stem rust resistance at the adult plant growth stage in elite spring bread wheat genotypes

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P341 - Tritordeum as a Habitat for the Development of the Rice Weevil Sitophilus oryzae L.—Analysis of Selected Properties of the Cereal Grains Determining Their Resistance Mechanisms

Bożena Kordan ⁽¹⁾ - **Mariusz Nietupski** ⁽¹⁾ - **Emilia Ludwiczak** ⁽¹⁾ - **Elżbieta Suchowilska** ⁽²⁾ - **Mariusz Foltyński** ⁽¹⁾

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P342 - Genetics of Spot Blotch Resistance in Wheat

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P343 - Effects on yield and seed composition of Puccinia striiformis f. sp. tritici inoculation of wheat near isogenic lines containing Yr9, Yr10, and Yr15 resistance genes

Maryke Labuschagne ⁽¹⁾ - **Ridokunda Sivhada** ⁽¹⁾ - **Willem Boshoff** ⁽¹⁾ - **Angeline Jacoby** ⁽¹⁾

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P344 - Climate change alters the landscape of wheat fungal diseases and breeding in China

Caixia Lan ⁽¹⁾ - **Yichen Zhang** ⁽¹⁾ - **Shaodi Wu** ⁽¹⁾ - **Shunda Li** ⁽¹⁾ - **Ravi Singh** ⁽¹⁾ - **Juan Zeng** ⁽²⁾ - **Wei Xiong** ⁽³⁾

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P3645 - Develop Durum Wheat with Fusarium Head Blight Resistance Adapted to the Northern Great Plains

Xuehui Li ⁽¹⁾ - **Harika Pothula** ⁽¹⁾ - **Evan Salsman** ⁽¹⁾ - **Jason Axtman** ⁽¹⁾ - **Justin Hegstad** ⁽¹⁾ - **Yueqiang Leng** ⁽²⁾ - **Shaobin Zhong** ⁽³⁾ - **Zhao Jin** ⁽¹⁾ - **Jason Fiedler** ⁽⁴⁾ - **Steven Xu** ⁽⁵⁾ - **Elias Elias** ⁽¹⁾

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P346 - Characterizing seedling and adult-plant resistance to Puccinia striiformis f. sp. tritici via genome wide association study and RNA-Seq

Min Lin ⁽¹⁾ - **Julian Rodriguez-Algaba** ⁽²⁾ - **Mogens Støvring Hovmøller** ⁽²⁾ - **Anja Karine Ruud** ⁽¹⁾ - **Jon Arne Dieseth** ⁽³⁾ - **Morten Lillemo** ⁽¹⁾

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P347 - Metabolic Biological Basis Underlying Resistance to Fusarium Head Blight in Bread Wheat

Mengmeng Liu ⁽¹⁾ - **MIn Ao** ⁽¹⁾ - **Xin Hu** ⁽¹⁾ - **Wei Chen** ⁽¹⁾

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P348 - Identification of Genomic Regions and Durum Wheat Genotypes Associated with Yellow Rust Resistance Using a Subset of the Global Durum Panel (GDPv1) Under Inoculation and Field Conditions in Argentina

Juan Manuel Rivera ⁽¹⁾ - **Pablo E. Campos** ⁽²⁾ - **Diana Martino** ⁽¹⁾ - **Lisardo Gonzalez** ⁽¹⁾ - **Juan Pablo Edwards Molina** ⁽³⁾ - **Pablo Federico Roncallo** ⁽⁴⁾

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P349 - Effect of Pm3d/e chimeric gene on powdery mildew resistance of spring wheat (Triticum aestivum L.)

Klara Meszaros ⁽¹⁾ - **Monika Cseplo** ⁽¹⁾ - **Katalin Puskas** ⁽¹⁾ - **Judit Banyai** ⁽¹⁾ - **Csaba Eva** ⁽²⁾ - **Gyula Vida** ⁽¹⁾

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P350 - Identification of resistance sources to Septoria Tritici Blotch (STB) in spring Bread Wheat of Icarda germplasm in Morocco

Fatima Zahra MSSILEA ⁽¹⁾ - **Fatima Henkrar** ⁽²⁾ - **Khaoula Lahrichi** ⁽¹⁾ - **Zakaria El Gataa** ⁽³⁾ - **Fatima Ezzahra Rachdad** ⁽¹⁾ - **Muamar Al Jaboobi** ⁽⁴⁾ - **Tadesse Wuletaw** ⁽⁴⁾

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P351 - Unraveling host-pathogen protein-protein interactions in wheat blast through in-silico docking and molecular dynamics simulations

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P352 - Tracing Hybridization Timing in Wheat Powdery Mildew through Historical Genomics

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P353 - A novel necrotrophic effector-receptor interaction in Parastagonospora nodorum-wheat pathosystem

Eiko Furuki ⁽¹⁾ - **Thomas C. Richardson** ⁽¹⁾ - **Kasia Rybak** ⁽¹⁾ - **Fiona Kamphuis** ⁽¹⁾ - **Huyen Phan** ⁽¹⁾

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P354 - Genetic insights into Durum Wheat resistance to WSSMV and SBCMV across France and Italy

Valentin Ribaut ⁽¹⁾ - **Matteo Bozzoli** ⁽²⁾ - **Yann Holtz** ⁽¹⁾ - **Hélène Pidon** ⁽¹⁾ - **Véronique Viader** ⁽¹⁾ - **Michel Bonnefoy** ⁽³⁾ - **Morgane Ardisson** ⁽¹⁾ - **Sylvain Santoni** ⁽¹⁾ - **Faharidine Mohamadi** ⁽³⁾ - **Marco Maccaferri** ⁽²⁾ - **Jacques David** ⁽¹⁾

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P355 - Virulence analysis of Polish isolates of the fungus Zymoseptoria tritici causing Septoria tritici blotch

Dominika Piaskowska ⁽¹⁾ - **Urszula Piechota** ⁽¹⁾ - **Magdalena Radecka-Janusik** ⁽¹⁾ - **Piotr Słowacki** ⁽¹⁾ - **Paweł Czembor** ⁽¹⁾

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P356 - Integrating NAM and CIM to Map Stripe Rust Resistance in Spring Wheat

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P357 - Discovery of Host Susceptibility Factors for Enhancing Fusarium Head Blight Resistance in Wheat

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P358 - Genome-wide association study reveals enriched diversity for Pratylenchus thornei resistance in Watkins' wheat landraces

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P359 - PGPR Priming and Reprogramming of Stress Crosstalk for Enhancing Resilience to Heat-Induced Spot Blotch Susceptibility in Wheat

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P360 - Integrating Avirulence Depletion and Pantranscriptomics to Identify Host-Specificity Factors in *Blumeria graminis*

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P361 - Rust resistance in a changing world as key for future cereal yields

Philipp Schulz ⁽¹⁾ - **Nathalie Beilke** ⁽¹⁾ - **Tim Kloppe** ⁽¹⁾ - **Edyta Paczos-Grzęda** ⁽²⁾ - **Bettina Klocke** ⁽¹⁾

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P362 - Activation of Exotic Wheat Genetic Resources for Disease Resistance

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P363 - Genome wide association studies and expression analyses identify candidate genes for spot blotch resistance in bread wheat

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P364 - Identification of stable and high-effect loci for durable leaf rust resistance in bread wheat through multi-environment Genome-Wide Association Mapping

Muhammad Ali Sher ⁽¹⁾ - **Shoaib Ur Rehman** ⁽¹⁾ - **Mahmood Alam Khan** ⁽¹⁾ - **Muhammad Abu Bakar Saddique** ⁽¹⁾ - **Babar Farid** ⁽¹⁾ - **Tauqeer Abbas1** ⁽¹⁾ - **Humayun Raza** ⁽²⁾

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P365 - Development of a first comprehensive Near Isogenic line (NIL) series for stem rust resistance in a spring wheat background

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P366 - Exploring Triticale as a Novel Source for Wheat Blast Resistance

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P367 - Exploration of wheat lines with tolerance to Fusarium mycotoxin deoxynivalenol

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P368 - Tracking the evolution of Puccinia graminis f. sp. tritici and its impact on the resistance of wheat cultivars and breeding lines in South Africa

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P369 - Contrasting Wheat Resistances Shape Plant-to-Plant Field Spread of Foliar Disease in Cultivar Mixtures

Adrien Vial ⁽¹⁾ - **Valentina Rossi** ⁽²⁾ - **Åsa Lankinen** ⁽³⁾ - **Laura Grenville-Briggs Didymus** ⁽³⁾ - **Firuz Odilbekovs** ⁽⁴⁾ - **Tina Henriksson** ⁽⁴⁾ - **Aakash Chawade** ⁽¹⁾

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P370 - Deciphering Spot Blotch Resistance in Wheat through Multi-Locus GWAS and Gene Expression Analysis

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P371 - Fusarium, Ergot, and Midge damage in Canadian Wheat across >30 Years and >250,000 Samples

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P372 - Mycotoxin profiles of Tritordeum grain after artificial spike inoculation with Fusarium culmorum

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Marian Wiwart ⁽¹⁾ - **Elżbieta Suchowilska** ⁽¹⁾ - **Michael Sulyok** ⁽²⁾ - **Wolfgang Kandler** ⁽²⁾ - **Rudolf Krska** ⁽²⁾

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P373- Additive Effects of Key Environmental Factor Combinations Drive Wheat Powdery Mildew Incidence Across Growth Stages Under Climate Change

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P374 - Identification and cloning of a greenbug resistance gene from *Aegilops tauschii*

Dhondup Lhamo ⁽¹⁾ - **Jianqiang Shen** ⁽²⁾ - **Genqiao Li** ⁽³⁾ - **Toni Mohr** ⁽¹⁾ - **Roger Thilmony** ⁽¹⁾ - **Prakitchai Chotewutmontri** ⁽¹⁾ - **Han-Chang Chang** ⁽¹⁾ - **Honglian Ye** ⁽⁴⁾ - **Shuyu Liu** ⁽⁵⁾ - **Jackie Rudd** ⁽⁶⁾ - **Brett Carver** ⁽⁷⁾ - **Yong-Qiang Gu** ⁽¹⁾ - **Xiangyang Xu** ⁽³⁾ - **Steven Xu** ⁽¹⁾

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P375 - Molecular identification and validation of an adult-plant stripe rust resistance gene in the wheat cultivar Chuanmai 62

Fangjie Yao ⁽¹⁾ - **Manyu Yang** ⁽¹⁾ - **Ning Yang** ⁽¹⁾ - **Jun Li** ⁽¹⁾ - **Wuyun Yang** ⁽¹⁾ - **Ennian Yang** ⁽¹⁾

(1) Sichuan Academy of Agricultural Sciences, Crop Research Institute, Chengdu, Cina

P376 - Uncovering masked blast resistance genes through chromosome dosage manipulation in allohexaploid wheat

Vy Trinh T. P. ⁽¹⁾ - **Yoshihiro Inoue** ⁽¹⁾ - **Shoya Komura** ⁽¹⁾ - **Miyuki Nitta** ⁽¹⁾ - **Kentaro Yoshida** ⁽¹⁾

(1) Graduate School of Agriculture, Kyoto University, Kyoto, Japan

P377 - Identification of stripe rust resistance loci in Gansu wheat landraces using genome-wide association analysis

Zhe Zhang ⁽¹⁾ - **Yu Zhang** ⁽¹⁾ - **Ying Guo** ⁽²⁾ - **Ravi P. Singh** ⁽¹⁾ - **Caixia Lan** ⁽¹⁾

(1) Huazhong Agricultural University, College of Plant Science and Technology, Wuhan, China - (2) Gansu Academy of Agricultural Sciences, Wheat Research Institute, Lanzhou, China

P378 - Identification and dissection of seedling-stage resistance loci for *Septoria tritici* blotch (STB) in a Global collection of landraces representative of the *Triticum turgidum* ssp. germplasm

Congying Zhou ⁽¹⁾ - **Genet Atsbeha Fiseha** ⁽¹⁾ - **Jad B Novi** ⁽²⁾ - **Eleonora Cappelletti** ⁽¹⁾ - **Chunyi Liu** ⁽¹⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Agata Gadaleta** ⁽³⁾ - **Elisabetta Mazzucotelli** ⁽⁴⁾ - **Thierry Marcel** ⁽⁵⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Antonio Prodi** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾

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TOPIC 10

WHEAT QUALITY, END-USE PROCESSING, NUTRITION AND HUMAN-HEALTH

P379 - Multi-locus GWAS for grain contents of eight minerals in bread wheat (*Triticum aestivum* L.)

Shoeb Ahmed ⁽¹⁾ - **Jitendra Kumar** ⁽²⁾ - **Rahul Kumar** ⁽¹⁾ - **Pushpendra K Gupta** ⁽¹⁾

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P380 - Endoplasmic reticulum stress remodelling by Lunapark proteins: A transcriptomic dissection in model and wheat plants

Muhammad Ali ⁽¹⁾ - **Carmen Mangas** ⁽¹⁾ - **Verena Kriechbaumer** ⁽¹⁾

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P381 - From Farmers' Fields to Future Harvests: Yield and Quality Evaluation of New Wheat Varieties under Dry Season Conditions in Morocco

Ali Amamou (1) - Mouez Amri (2) - Abdelali Laamari (3)

- (1) Settat, Morocco, Plant breeding, Settat, Morocco - (2) UM6P, biological sciences and plant breeding, Benguerir, Morocco - (3) UM6P, Africa Business School, Benguerir, Morocco

P382 - Development of a High Molecular Weight Glutenin Subunits master set from GLU-B1 locus

Francisco Andrade (1) - Juan B. Alvarez (1) - Carlos Guzmán (1)

(1) University of Cordoba, Department of Genetics, Córdoba, Spain

P383 - The Triticeae breeding research group: exploring innovative strategies to enhance grain carotenoid content in wheat

MD Requena-Ramírez (1) - C Rodríguez-Suárez (1) - E. Mazzucotelli (2) - D. Hornero-Méndez (3) - SG Atienza (1)

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P384 - Green Insecticidal Beads Based on Chitosan-Modified Tunisian Diatomaceous Earth and Thyme Essential Oil for the Control of *Rhizopertha dominica* in Stored Durum Wheat seeds

Olfa Bachrouch (1) - Hager Ben Ghanem (2) - Lina Gayess (1) - Syrine Somrani (2) - Ghazlene Mekhloufi (3) - karima Horchani Ennaifer (4) - Arbi Amdouni (5) - Manef Abderraba (6)

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P385 - The ectopic expression of *taexpa6* and the triple knock-out of *tagw2* increase grain weight while maintaining quality traits (protein and phosphorus concentrations) in wheat

Lucas Vicentin (1) - Daniel Calderini (2)

(1) Universidad Austral de Chile, Graduate School, Valdivia, Chile - (2) Universidad Austral de Chile, Instituto de Produccion y Sanidad Vegetal, Valdivia, Chile

P386 - The Tetraploid Wheat Core Collection (TCC): a highly diverse, molecularly characterised germplasm resource assessed for developmental and health-related Quality Traits

Eugenia Carini (1) - Matteo Bozzoli (1) - Cristian Forestan (1) - Sandra Stefanelli (1) - Laura Gazza (2) - Luigi Cattivelli (2) - Elisabetta Mazzucotelli (2) - Maria Caboni (1) - Roberto Tuberosa (1) - Marco Maccaferri (1)

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P387 - A Differentially Distributed Gene Cluster for Isorhamnetin Biosynthesis Identified in Wheat

Yuan hui Chen (1)

(1) Hubei Hongshan Laboratory, Huazhong Agricultural University, WUhan, China

P388 - Identification of QTL involved in heavy metal and trace element accumulation in durum wheat

Alexia Crézé (1) - Christophe Nguyen (2) - Jacques Le Gouis (3) - Matthieu Bogard (1) - Boris Demenou (4)

(1) Arvalis, SAGEP, Baziège, France - (2) INRAE, IPSA, Villenave d'Ornon, France - (3) INRAE, GDEC, Clermont-Ferrand, France - (4) Arvalis, SAGEP, Beauce La Romaine, France

P389 - Agronomic, quality and nutritional potential of modern bread wheat in Ireland

Sinead Dermody (1) - Fiona Doohan (2) - Susanne Barth (1)

(1) Teagasc, Oak Park, Crops Research Centre, Carlow, Ireland - (2) University College Dublin, School of Biology and Environmental Science, Science Centre, Dublin, Ireland

P390 - Viscoelastic Properties and Protein Functionality of High-Amylose Wheat Flour

Riley Smith (1) - Yong Cheng Shi (1) - Hulya Dogan (1)

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P391 - WheatRes: Assessing Genetic Diversity for Durum Wheat Quality in Spanish Landraces and Commercial Cultivars

Virginia Garcia-Calabres Marin ⁽¹⁾ - **Francisco Andrade** ⁽¹⁾ - **Magdalena Izquierdo Julve** ⁽²⁾ - **Julio Isidro y Sánchez** ⁽³⁾ - **Jaime Nolasco Rodríguez-Vázquez** ⁽⁴⁾ - **Ignacio Solís** ⁽⁴⁾ - **Juan Bautista Alvarez** ⁽¹⁾ - **Carlos Guzmán** ⁽¹⁾

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P392 - Comparative analysis of wheat grain protein content: wet chemistry and NIR based methods

Christina Hagerty ⁽¹⁾ - **Gena Mahato** ⁽²⁾ - **Ryan Graebner** ⁽³⁾ - **Matthew Hunt** ⁽³⁾ - **Grayson Namdar** ⁽²⁾ - **Rachael Plunkett** ⁽²⁾ - **Daisy Wood** ⁽³⁾ - **Margaret Krause** ⁽³⁾ - **Surendra Singh** ⁽⁴⁾ - **Francisco Calderon** ⁽³⁾

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P393 - Enhancing Dietary Fiber in Wheat Through Arabinoxylan Improvement

Maria Itria Ibbá ⁽¹⁾ - **Nayelli Hernandez-Espinosa** ⁽¹⁾ - **Guillermo Gerard** ⁽¹⁾ - **Susanne Dreisigacker** ⁽¹⁾

(1) CIMMYT, Global Wheat Program, Texcoco, Mexico

P394 - Effect of the wheat bread-making gene on gluten protein fractions analyzed by high-performance liquid chromatography

Angeline Jacoby ⁽¹⁾ - **Chidimma Gift Omenoba-Nee Ubah** ⁽¹⁾ - **Ansorie Maré** ⁽²⁾ - **Maryke Labuschagne** ⁽¹⁾

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P395 - Twenty-year evaluation of baking quality traits in spring and winter wheat cultivars

Riinu Kaasik ⁽¹⁾ - **Reine Koppel** ⁽²⁾ - **Anne Ingver** ⁽²⁾

(1) Centre of Estonian Rural Research and Knowledge, Department of Plant Protection, Jõgeva, Estonia - (2) Centre of Estonian Rural Research and Knowledge, Department of Plant Breeding, Jõgeva, Estonia

P396 - High-Throughput Prediction of Farinograph and Baking Traits in Hard Red Spring Wheat Using GlutoPeak Indices and Machine Learning: Fast-Track End-Use Quality Decisions

Simardeep Kaur ⁽¹⁾ - **Andrew Green** ⁽²⁾ - **Shahidul Islam** ⁽²⁾

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P397 - Genome-Wide Association Study for Genetic Determinants of Phytic Acid Content and Mineral Bioavailability in Wheat (*Triticum aestivum* L.)

Rahul Kumar ⁽¹⁾ - **Anjali Verma** ⁽¹⁾ - **Shoeb Ahmed** ⁽¹⁾ - **Pushpendra K Gupta** ⁽¹⁾

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P398 - Effect of global warming on wheat grain and baking quality stability - Project CLIMABOUL (CLimat et quAlité BOULangère)

Anne-Laure Chateigner-Boutin ⁽¹⁾ - **Laila Rodrigues De Araujo Alves Cruz** ⁽²⁾ - **Baptiste Vancostenoble** ⁽³⁾ - **Benoît Méléard** ⁽³⁾ - **Christine Girousse** ⁽²⁾ - **Catherine Ravel** ⁽²⁾ - **Valérie Lullien-Pellerin** ⁽⁴⁾ - **Luc Saulnier** ⁽¹⁾ - **Jacques Le Gouis** ⁽²⁾

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P399 - Dynamic Profiling of Lipid Metabolism in Developing Wheat Grains

QianQian Li ⁽¹⁾ - **Ting Chen** ⁽¹⁾ - **Guang Chen** ⁽¹⁾

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P400 - Technological quality screening in wheat: Direct and indirect effects of gluten traits on bread volume

Ernandes Manfro ⁽¹⁾ - **Gabriela Soster Santeti** ⁽¹⁾ - **Viginia Cunha** ⁽¹⁾ - **Luana Carolina do Prado Pabst** ⁽¹⁾ - **Ivana Sabljic** ⁽¹⁾

(1) GDM Seeds, Wheat Research, Passo Fundo, Brazil

P401 - Genome-Wide Identification and Expression Validation of Phytate Biosynthesis Genes in Wheat for Zn bioavailability

Rizwana Maqbool ⁽¹⁾ - **Muhammad Ahsan Khan** ⁽¹⁾ - **Fatime Umar** ⁽¹⁾ - **Muhammad Taseer Abbas Naqvi** ⁽¹⁾

(1) University of Agriculture, Faisalabad, Plant Breeding and Genetics, Faisalabad, Pakistan

P402 - Multifunctional Roles of Sucrose Fatty Acid Esters in Flour- and Starch-Based Premix Foods

Takugi Murata ⁽¹⁾ - **Yuki Mitarai** ⁽¹⁾ - **Tomosada Masuko** ⁽¹⁾

(1) Mitsubishi Chemical Corporation, Food & Healthcare Group, KANAGAWA, Japan

P403 - Integrating Nutritional Quality Sensory Traits and Genetic Diversity for Multi-Trait Wheat Improvement

Olawale Olalekan ⁽¹⁾ - **Julia Darlison** ⁽¹⁾ - **Nikwan Shariatipour** ⁽¹⁾ - **Karin Wendin** ⁽²⁾ - **Marcus Johansson** ⁽²⁾ - **Tina Henriksson** ⁽³⁾ - **Thomas Björklund** ⁽⁴⁾ - **Firuz Odilbekov** ⁽³⁾ - **Eva Johansson** ⁽¹⁾ - **Mahubjon Rahmatov** ⁽¹⁾

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P404 - Genetic Diversity, Fiber Composition and Quality Traits of European Spelt Wheat (*Triticum aestivum* ssp. *spelta*) for Sustainable Crop Improvement

Marianna Rakszegi ⁽¹⁾ - **Sándor Tömösközi** ⁽²⁾ - **Edina Jaksics** ⁽²⁾ - **Péter Mikó** ⁽¹⁾ - **Ildikó Karsai** ⁽³⁾ - **András Cseh** ⁽³⁾

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P405 - Impact of xanthophyll esterification on carotenoid stability during bread-making in wheat and tritordeum

María Dolores Requena-Ramírez ⁽¹⁾ - **Cristina Rodríguez-Suárez** ⁽¹⁾ - **Dámaso Hornero-Méndez** ⁽²⁾ - **Sergio G. Atienza** ⁽¹⁾

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P406 - Understanding the Effects of Global Warming on Wheat Grain to Improve the Stability of Breadmaking Quality.

Laïla Rodrigues De Araujo Alves Cruz ⁽¹⁾ - **Baptiste Vancostenoble** ⁽²⁾ - **Benoît Meleard** ⁽²⁾ - **Christine Girousse** ⁽³⁾ - **David Alvarez** ⁽³⁾ - **Lucie Le-Bot** ⁽⁴⁾ - **Sibille Perrochon** ⁽³⁾ - **Catherine Grand-Ravel** ⁽³⁾ - **Valérie Lullien-Pellerin** ⁽⁵⁾ - **Luc Saulnier** ⁽⁴⁾ - **Anne-Laure Chateigner-Boutin** ⁽⁴⁾ - **Jacques Le Gouis** ⁽³⁾

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P407 - Dissecting the genetic basis of carotenoid accumulation and esterification in an argentinean durum wheat collection using GWAS, evaluation of the carotenoid profile and KASP markers

María Amparo Blanco Méndez ⁽¹⁾ - **Lourdes María Martínez** ⁽²⁾ - **Anna Maria Mastrangelo** ⁽³⁾ - **Diana Martino** ⁽⁴⁾ - **Juan Manuel Rivera** ⁽⁴⁾ - **Juan Manuel Rodrigo** ⁽²⁾ - **Ana Clara Fernández** ⁽²⁾ - **Daniela Soresi** ⁽²⁾ - **Dámaso Hornero Méndez** ⁽⁵⁾ - **Sergio Gustavo Atienza** ⁽⁶⁾ - **Cristina Rodríguez Suárez** ⁽⁶⁾ - **Pablo Federico Roncallo** ⁽²⁾

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P408 - Exploiting gamma-irradiation mutant population for enhancing grain nutritional quality and nitrogen use efficiency.

Ajay Siluveru ⁽¹⁾ - **Alex Howard** ⁽¹⁾ - **Simon Orford** ⁽¹⁾ - **Workie Zegeye** ⁽¹⁾ - **Noam Chayut** ⁽¹⁾ - **Burkhard Steuernagel** ⁽¹⁾ - **Jon Wright** ⁽²⁾

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P409 - Multi-Environment Field Trials of a European Elite Wheat Panel Provide Insights into the Genetic Architecture of Falling Number Stability

Iulian Gabur ⁽¹⁾ - **Harmeet Chawla** ⁽²⁾ - **Sylvia Seddig** ⁽³⁾ - **Frank Ordon** ⁽⁴⁾ - **Holger Zetzsche** ⁽⁴⁾ - **Andreas Stahl** ⁽⁴⁾

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P410 - Tritordeum, an alternative cereal for breadmaking

Elżbieta Suchowilska ⁽¹⁾ - **Marian Wiwart** ⁽¹⁾ - **Anna Szafrńska** ⁽²⁾

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P411 - Genotype × Agroecological Management Interactions Promote Rheological and Nutritional Quality of Durum Wheat in Mediterranean Mountains

Mona Taghouti ⁽¹⁾ - **Rajae Kallida** ⁽²⁾ - **Fatima Gaboun** ⁽³⁾ - **Miguel Sanchez-Garcia** ⁽⁴⁾ - **Nasserddine Louahdi** ⁽⁵⁾ - **Rola El Amil** ⁽⁶⁾ - **Ilaria Mazzoli** ⁽⁷⁾ - **Dubravka Kolarić Zatezalo** ⁽⁸⁾ - **Rachid Mrabet** ⁽²⁾ - **Filippo Bassi** ⁽⁴⁾

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P412- Accelerating wheat quality phenotyping: streamlined bioactive assays and NIR-machine learning prediction of processing quality

Wenfei Tian ⁽¹⁾ - **Zhonghu He** ⁽¹⁾

(1) Chinese Academy of Agricultural Sciences (CAAS), Institute of Crop Sciences, Beijing, China

P413 - A simple way for wholegrain bakery products to be low-FODMAP

Aleksandra Torbica ⁽¹⁾

(1) Institute of Food Technology in Novi Sad, University of Novi Sad, Novi Sad, Serbia

P414 - Environmental and genetic determination of semolina Minolta b* value in winter durum wheat

Gyula Vida ⁽¹⁾ - **Katalin Puskas** ⁽¹⁾ - **Monika Cseplo** ⁽¹⁾

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P415 - A high-quality bread wheat genome unravels adaptive evolution of wheat end-use quality

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IWC4 2026 - SELECTED ORAL TALKS

TOPIC 1

ENABLING SUSTAINABLE WHEAT PRODUCTION IN A BROAD CROPPING SYSTEM. I CROP MANAGEMENT, SOIL CONSERVATION AND HEALTH

PO417 - Optimizing sulfur nutrition as a driver for iron homeostasis and grain safety in durum wheat

Eleonora Coppa ⁽¹⁾ - **Mutsumi Watanabe** ⁽²⁾ - **Moez Maghrebi** ⁽³⁾ - **Giulia Quagliata** ⁽¹⁾ - **Alessandro Bruschini** ⁽¹⁾ - **Rainer Hoefgen** ⁽⁴⁾ - **Gianpiero Vigani** ⁽³⁾ - **Stefania Astolfi** ⁽¹⁾

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PO418 - Proteome-informed breeding and management of nitrogen uptake and use efficiency across Australian broadacre wheat systems

Katharina Belt ⁽¹⁾ - **Samantha Harvie** ⁽¹⁾ - **Hui Cao** ⁽¹⁾ - **Samalka Wijeweera** ⁽¹⁾ - **A. Harvey Millar** ⁽¹⁾

⁽¹⁾ University of Western Australia, School of Molecular Sciences, Crawley, Australia

PO419 - The Wheat Microbiome: Spatial and Genetic Drivers of Bacterial and Fungal Communities in European Wheat Systems

Minely Cerón-Bustamante ⁽¹⁾ - **Tancredi Caruso** ⁽¹⁾ - **Cathal McCabe** ⁽²⁾ - **Stephen Carey** ⁽²⁾ - **Angela Feechan** ⁽²⁾ - **Marco Maccaferri** ⁽³⁾ - **Matteo Bozzoli** ⁽³⁾ - **Sophie Bouchet** ⁽⁴⁾ - **Justin Blancon** ⁽⁴⁾ - **Fiona Doohan** ⁽¹⁾

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PO420 - Improving the performance of durum and winter wheat in intermediate areas of France through a combination of appropriate levers: lessons from 10 years of system experimentation in the Syppre network

Marie Estienne ⁽¹⁾ - **Loïc Viguière** ⁽¹⁾ - **Domitille Jamet** ⁽²⁾ - **Matthieu LOOS** ⁽²⁾ - **Eva Deschamps** ⁽¹⁾ - **Geoffroy Oudoire** ⁽¹⁾ - **stéphane Cadoux** ⁽²⁾ - **Rémy Duval** ⁽³⁾ - **Clotilde Rouillon** ⁽¹⁾

⁽¹⁾ Arvalis, Agronomy, Economy & environnement Service, Paris, France - ⁽²⁾ Terres Inovia, Agronomy, Economy & environnement departement, Thiverval-Grignon, France - ⁽³⁾ Institut technique de la betterave, research & developpement, Paris, France

PO421- Prospects for Enhancing Durum Wheat Productivity in Ethiopia: From Field to Market:

Wasihun Getahun ⁽¹⁾

⁽¹⁾ Ethiopian institute of Agricultural Research, Bishoftu Agricultural Research Center, Addis Ababa, Ethiopia

PO422- From Genes to the Rhizosphere: Harnessing Root-Microbiome Interactions to Improve Nitrogen Use Efficiency in Wheat

Maria Hernandez-Soriano ⁽¹⁾ - **Frederick James Warren** ⁽²⁾ - **Falk Hildebrand** ⁽³⁾ - **Simon Griffiths** ⁽¹⁾

⁽¹⁾ John Innes Centre, Crop Genetics, Norwich, United Kingdom - ⁽²⁾ Quadram Institute, Food, Microbiome and Health, Norwich, United Kingdom - ⁽³⁾ Quadram Institute, Microbial Genomes, Strains and Evolution, Norwich, United Kingdom

PO423 - Learning from Long-Term Data: How Rotation and Establishment Systems have Shaped Winter Wheat Performance in a Temperate Atlantic-influenced Region

Jack Jameson ⁽¹⁾

⁽¹⁾ Teagasc, Crop Science, Carlow, Ireland

PO424 - Identifying High-Yield and High-Profit Cropping Systems for Sustainable Wheat Production in India - Evidence from Nationally Representative Household Survey

Vinita Kanwal ⁽¹⁾ - **Pankaj Kumar** ⁽²⁾ - **Sendhil Ramadas** ⁽²⁾

⁽¹⁾ Punjab Agricultural University, Department of Agricultural Economics, Ludhiana, India - ⁽²⁾ Pondicherry University, Department of Economics, Puducherry, India

PO425 - Exploring novel planting strategies for sustainable improvement in wheat yield and profits

Maninder Pal Singh ⁽¹⁾ - **Patrick Copeland** ⁽¹⁾ - **Wallas da Silva** ⁽¹⁾ - **Paulo Arias** ⁽¹⁾ - **Dennis Pennington** ⁽¹⁾ - **Eric Olson** ⁽¹⁾

⁽¹⁾ Michigan State University, Dept of Plant, Soil and Microbial Sciences, East Lansing, United States

IWC4 2026 - SELECTED ORAL TALKS

TOPIC 2

ENABLING SUSTAINABLE WHEAT PRODUCTION IN A BROAD CROPPING SYSTEM. II PHENOMICS, ENVIROMICS, CROP MODELLING, DIGITAL AGRICULTURE

PO426 - Strategically Timed UAV Remote Sensing for Robust Wheat Yield Prediction: A Multi-year Study on Phenology-Aligned Machine Learning Dynamics

Shannon Baker ⁽¹⁾ - **Nafiul Islam** ⁽²⁾ - **Mahendra Bhandari** ⁽³⁾ - **Anjin Chang** ⁽⁴⁾ - **Amir MH Ibrahim** ⁽⁵⁾ - **Jinha Jung** ⁽⁶⁾ - **Juan Landivar** ⁽³⁾ - **Shuyu Liu** ⁽²⁾ - **Varenya Sri Mudumb** ⁽²⁾ - **Ritik Pokharel** ⁽⁷⁾ - **Jackie Rudd** ⁽¹⁾ - **Jose Landivar Scott** ⁽³⁾ - **Thanos Gentemis** ⁽²⁾

⁽¹⁾ Texas A&M AgriLife Research, High Plains Research and Extension Center, Amarillo, United States - ⁽²⁾ Texas A&M University, Department of Soil and Crop Sciences, College Station, United States - ⁽³⁾ Texas A&M AgriLife Research, Corpus Christi, Corpus Christi, United States - ⁽⁴⁾ Michigan State University, Department of Biosystems and Agricultural Engineering, East Lansing, United States - ⁽⁵⁾ Texas A&M AgriLife Research, Texas A&M University, College Station, United States - ⁽⁶⁾ Purdue University, Lyles School of Civil and Construction Engineering, West Lafayette, United States - ⁽⁷⁾ Louisiana State University, Louisiana State University AgCenter, Baton Rouge, United States

PO427 - Digitizing Wheat Variety Testing: Transitioning High-Throughput Phenotyping from Research to Regulatory Infrastructure

Alexis Comar ⁽¹⁾ - **Alexandra Bürgy** ⁽¹⁾ - **Patrizia Zamberletti** ⁽¹⁾ - **Jeremy Labrosse** ⁽¹⁾ - **Jocelyn Gillet** ⁽¹⁾ - **Adam Serghini** ⁽¹⁾ - **Allison Poilance** ⁽¹⁾

⁽¹⁾ Hiphen, Hiphen, Avignon, France

PO428 - Spectral Fingerprinting of Wheat at Early Growth Stages Enables Accurate Grain Yield Prediction

C. Mariano Cossani ⁽¹⁾ - **Victor Sadras** ⁽¹⁾

⁽¹⁾ SARDI-South Australian Research and Development Institute, PIRSA, URRBRAE, Australia

PO429 - Multi-climatic plausibility testing of nitrogen-mitigation scenarios in wheat using crop models: a benchmarking workflow for digital agronomy

Francesca Degan ⁽¹⁾ - **Nathan Ortalo** ⁽¹⁾ - **Donghao Xu** ⁽²⁾ - **Anna Strekalovskaya** ⁽³⁾ - **Chantal Hendriks** ⁽⁴⁾ - **Karin Nikolaus** ⁽⁴⁾ - **Marcos Lana** ⁽⁵⁾ - **Salim Belyazid** ⁽³⁾ - **Gerard Ros** ⁽²⁾ - **Mengru Wang** ⁽²⁾ - **Anaïs Bonnard** ⁽⁶⁾ - **Benoit Piquemal** ⁽⁷⁾

⁽¹⁾ ARVALIS – Institut du végétal, R&D Agronomy, Paris, France - ⁽²⁾ Wageningen University & Research, Dept. Earth Systems and Global Change, Wageningen, Netherlands - ⁽³⁾ Stockholm University, Dept. of Physical Geography, Stockholm, Sweden - ⁽⁴⁾ Wageningen University & Research, Dept. Sustainable Soil Use, Wageningen, Netherlands - ⁽⁵⁾ Swedish University of Agricultural Sciences (SLU), Dept. of Crop Production Ecology, Agricultural cropping systems, Uppsala, Sweden - ⁽⁶⁾ ARVALIS – Institut du végétal, R&D Crop Physiology, Paris, France - ⁽⁷⁾ ARVALIS – Institut du végétal, R&D Modelling, Paris, France

PO430 - Characterizing yield through wheat's perception of chronological progression: a multi-omics plant-time warping approach

Roth Lukas ⁽¹⁾ - **Herrera Juan M.** ⁽²⁾ - **Häner Lilia Levy** ⁽²⁾ - **Pellet Didier** ⁽²⁾ - **Fossati Dario** ⁽²⁾ - **Boss Mike** ⁽³⁾ - **Chen Xiaoran** ⁽⁴⁾ - **Nousi Paraskevi** ⁽⁴⁾ - **Volpi Michele** ⁽⁴⁾

⁽¹⁾ Martin-Luther-University (MLU) Halle-Wittenberg, Precision Phenotyping Group, Halle (Saale), Germany - ⁽²⁾ Agroscope, Agroscope, Nyon, Switzerland - ⁽³⁾ ETH Zurich, Institute of Agricultural Sciences, Zürich, Switzerland - ⁽⁴⁾ Swiss Data Science Center, Swiss Data Science Center, Zürich and Lausanne, Switzerland

PO431 - Synchronized plant-environment time series enable machine learning prediction of daily wheat transpiration from high-precision gravimetric lysimetry

Menachem Moshelion ⁽¹⁾ - **Nir Averbuch** ⁽¹⁾ - **Shani Fridman** ⁽¹⁾

⁽¹⁾ The Hebrew University of Jerusalem, Institute of Plant Sciences and Genetics in Agriculture, The Robert H. Smith Faculty of Agriculture, Food and Environment, Rehovot, Israel

PO432 - Grain yield efficiency of dry land wheat in Israel: a high-resolution coupled crop-climate modeling approach

Ehud Strobach ⁽¹⁾ - **Avimanyu Ray** ⁽¹⁾ - **Daniel Farhi** ⁽¹⁾ - **Roi Ben-David** ⁽²⁾

⁽¹⁾ Agricultural Research Organization, Department of Environmental Physics and Irrigation, Rishon Lezion, Israel - ⁽²⁾ Agricultural Research Organization, Vegetable Field Crop Research, Rishon Lezion, Israel

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TOPIC 03

CARBON FOOTPRINT OF WHEAT PRODUCTION: TOWARD A REDUCTION OF GREENHOUSE GAS EMISSIONS

PO433 - Environmental Impacts of Precision Agriculture Adoption in Central Italy Wheat Production: A Comparative LCA

Claudia Camplone ⁽¹⁾ - **Maksims Feofilovs** ⁽²⁾ - **Lucia Rocchi** ⁽¹⁾ - **Sara Allahverdiyeva** ⁽²⁾ - **Renzo Santi** ⁽³⁾ - **Luisa Paolotti** ⁽¹⁾ - **Lorenzo Covarelli** ⁽¹⁾ - **Francesco Romagnoli** ⁽²⁾

⁽¹⁾ University of Perugia, Agricultural, Food and Environmental Sciences, Perugia, Italy - ⁽²⁾ Riga Technical University, Institute of Energy Systems and Environment, Riga, Latvia - ⁽³⁾ Colussi Group, Università degli studi di Perugia, Perugia, Italy

PO434 - Sucrose signalling: a new approach for reducing nitrogen inputs in wheat production?

Catherine Famelton ⁽¹⁾ - **Maria Oszvald** ⁽²⁾ - **Cara Griffiths** ⁽³⁾

⁽¹⁾ Rothamsted Research, Engineering Biology for Agriculture, Harpenden, United Kingdom - ⁽²⁾ SugaROX Ltd., Harpenden, United Kingdom - ⁽³⁾ SugaROX Ltd. and Rothamsted Research, Engineering Biology for Agriculture, Harpenden, United Kingdom

PO435 - Improved carbohydrate accumulation drives wheat breeding progress and yield formation

Lukas Förter ⁽¹⁾ - **Andris Finkbeiner** ⁽¹⁾ - **Andreas Stahl** ⁽²⁾ - **Tsu-Wei Chen** ⁽³⁾ - **Eva Herzog** ⁽⁴⁾ - **Benjamin Wittkop** ⁽¹⁾ - **Rod J. Snowdon** ⁽¹⁾

⁽¹⁾ Justus-Liebig-University, Department of Plant Breeding, Giessen, Germany - ⁽²⁾ Julius Kühn Institute, Institute for Resistance Research and Abiotic Stress Tolerance, Quedlinburg, Germany - ⁽³⁾ Humboldt University Berlin, Group of Intensive Plant Food Systems, Berlin, Germany - ⁽⁴⁾ Justus-Liebig-University, Biometry and Population Genetics, Giessen, Germany

PO436 - Phenotyping nitrogen use efficiency for a new benchmark nutrient management regime in UK farms

Oorbessy Gaju ⁽¹⁾ - **Fred Wu** ⁽¹⁾

⁽¹⁾ University of Lincoln, Lincoln Institute for Agr-Food and Technology, Lincoln, United Kingdom

PO437 - Carbon footprint of Brazilian wheat production under contrasting farm sizes

Vanderlise Giongo ⁽¹⁾ - **Álvaro Augusto Dossa** ⁽¹⁾ - **Alexandre Ferreira do Nascimento** ⁽¹⁾ - **Anderson Santi** ⁽¹⁾ - **Adão da Silva Acosta** ⁽¹⁾ - **André Júlio do Amaral** ⁽¹⁾ - **Diego Inácio Patrício** ⁽¹⁾ - **Oswaldo Vasconcellos Vieira** ⁽¹⁾ - **Mônica da Silva Santana** ⁽²⁾ - **Eduardo Caierão** ⁽¹⁾

⁽¹⁾ Brazilian Agriculture Research Corporation (Embrapa), Embrapa Wheat, Passo Fundo, Brazil - ⁽²⁾ Edmundo Gastal Agricultural Research and Development Support Foundation, Embrapa Wheat, Pelotas, Brazil

PO438 - Carbon Footprint in Wheat Production: A Systematic Review and Multi-Method Meta-Analysis

Akhilraj M ⁽¹⁾ - **Priyanka Lal** ⁽²⁾ - **Sendhil Ramadas** ⁽¹⁾

⁽¹⁾ Pondicherry University, Department of Economics, Puducherry, India - ⁽²⁾ ICAR-Indian Institute of Pulses Research, Social Science, Kanpur, India

PO439 - Breeding Beyond the Plot: Leveraging Rotational Genetics to Improve Wheat Performance and Farming System Sustainability

Millicent Smith ⁽¹⁾ - **Shanice Van Haeften** ⁽¹⁾ - **Stephanie Brunner** ⁽¹⁾ - **Eric Dinglasan** ⁽¹⁾ - **Mark Edward Fabreag** ⁽¹⁾ - **Joe Eyre** ⁽¹⁾ - **Celine Mens** ⁽¹⁾ - **Ben Hayes** ⁽¹⁾ - **Michael Udvardi** ⁽¹⁾ - **Samir Alahmad** ⁽¹⁾ - **Mitchell Eglinton** ⁽¹⁾ - **Ryan McQuinn** ⁽²⁾ - **Merrill Ryan** ⁽³⁾ - **Sarah van der Meer** ⁽¹⁾ - **Lee Hickey** ⁽¹⁾

⁽¹⁾ The University Of Queensland, Queensland Alliance for Agriculture and Food Innovation, Brisbane, Australia - ⁽²⁾ Western Sydney University, School of Science, Sydney, Australia - ⁽³⁾ Queensland Department of Primary Industries, Queensland Department of Primary Industries, Warwick, Australia

TOPIC 04

EXPLORING WHEAT DIVERSITY, EVOLUTION AND GENETIC RESERVOIRS

PO440 - Genetic diversity characterization of *Aegilops tauschii* wide sequenced collection to unlock useful alleles left-behind by domestication and breeding

Matteo Bozzoli ⁽¹⁾ - **Martina Bruschi** ⁽¹⁾ - **Pauline Thomelin** ⁽²⁾ - **Eric Ober** ⁽²⁾ - **Jesús Quiroz Chávez** ⁽³⁾ - **Kumar Gaurav** ⁽³⁾ - **Sanu Arora** ⁽³⁾ - **Cristobal Uauy** ⁽³⁾ - **Brande BJ Wulff** ⁽⁴⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾

- ⁽¹⁾ University of Bologna, Department of Agricultural and Food Sciences (DISTAL), Bologna, Italy - ⁽²⁾ National Institute of Agricultural Botany, NIAB, Cambridge, United Kingdom - ⁽³⁾ John Innes Centre, Norwich Research Park, Norwich, United Kingdom - ⁽⁴⁾ King Abdullah University of Science and Technology (KAUST), Center for Desert Agriculture, Biological and Environmental Science and Engineering Division (BESE), Thuwal, Saudi Arabia

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PO441 - Comprehensive Atlas of Wild Relative Introgressions Reveals Conserved Introgression Patterns and Massive Untapped Diversity in Wheat Genebanks

Surbhi Grewal ⁽¹⁾ - **Julie King** ⁽¹⁾ - **Miguel Gonzalez-Sanchez** ⁽²⁾ - **Dan Smith** ⁽²⁾ - **Burkhard Steuernagel** ⁽²⁾

⁽¹⁾ University of Nottingham, Nottingham Wheat Research Centre, Loughborough, United Kingdom - ⁽²⁾ John Innes Centre, John Innes Centre, Norwich, United Kingdom

PO442 - Genebank genomics provides a comprehensive genome diversity atlas of wheat

Max Haupt ⁽¹⁾ - **Hannah F Oertel** ⁽²⁾ - **Albert W Schulthess** ⁽²⁾ - **Samira El Hanafi** ⁽²⁾ - **Sandip M Kale** ⁽³⁾ - **Erwan Le Floch** ⁽⁴⁾ - **Axel Himmelbach** ⁽⁵⁾ - **Nils Stein** ⁽⁵⁾ - **Jochen Reif** ⁽⁵⁾ - **Martin Mascher** ⁽¹⁾

⁽¹⁾ IPK Gatersleben, Domestication Genomics, Gatersleben, Germany - ⁽²⁾ IPK Gatersleben, Quantitative Genetics, Gatersleben, Germany - ⁽³⁾ Aarhus University, Department of Agroecology, Aarhus, Denmark - ⁽⁴⁾ INRAE, INRAE, Paris, France - ⁽⁵⁾ IPK Gatersleben, Genomic of Genetic Resources, Gatersleben, Germany

PO443 - Mapping global wheat diversity through an Australian lens

Luisa Teasdale ⁽¹⁾ - **James O'Dwyer** ⁽¹⁾ - **Kenny Yu** ⁽¹⁾ - **Mahdi Rahimi** ⁽¹⁾ - **Kanak Jain** ⁽¹⁾ - **Frank Su** ⁽¹⁾ - **Don Isdale** ⁽¹⁾ - **Parampreet Kaur** ⁽¹⁾ - **Debbie Wong** ⁽¹⁾ - **Sally Norton** ⁽¹⁾ - **Kerrie Forrest** ⁽¹⁾ - **Gabriel Keeble-Gagnere** ⁽¹⁾ - **Matthew Hayden** ⁽¹⁾

⁽¹⁾ Agriculture Science & Technology, Agriculture Victoria, Melbourne, Australia

PO444 - Mitochondrial hybridity in in vitro fertilization-generated maize-wheat and pearl millet-wheat cybrids drive important stable phenotypic variations

Kingsley Ikenna Ikpa-Agodo ⁽¹⁾ - **Rika Sugiura** ⁽²⁾ - **Nonoka Onda** ⁽³⁾ - **Aya Satoh** ⁽³⁾ - **Tety Maryenti** ⁽³⁾ - **Nasrein Mohamed Kamal** ⁽⁴⁾ - **Takashi Okamoto** ⁽³⁾ - **Benjamin Ewa Ubi** ⁽⁴⁾ - **Takayoshi Ishii** ⁽⁴⁾

⁽¹⁾ United Graduate School Of Agricultural Science, Tottori University, Tottori, Japan - ⁽²⁾ Graduate School Of Sustainability Science, Tottori University, Tottori, Japan - ⁽³⁾ Graduate School Of Sciences, Tokyo Metropolitan University, Tokyo, Japan - ⁽⁴⁾ International Platform For Dryland Research And Education, Tottori University, Tottori, Japan

PO445 - Ancient grains illuminate the mosaic origin of domesticated wheat

Yael Lev-Mirom ⁽¹⁾ - **Assaf Distelfeld** ⁽¹⁾ - **Valenyna Klymiuk** ⁽²⁾ - **Curtis Pozniak** ⁽²⁾ - **Sariel Hubner** ⁽³⁾ - **Tzion Fahima** ⁽¹⁾ - **Ehud Weiss** ⁽⁴⁾

⁽¹⁾ University of Haifa, Institute of evolution, Haifa, Israel - ⁽²⁾ Crop Development Centre and Department of Plant Sciences, University of Saskatchewan, Saskatchewan, Canada - ⁽³⁾ MIGAL, University of Kiryat Shmona, Kiryat Shmona, Israel - ⁽⁴⁾ Martin (Szusz) Department of Land of Israel Studies and Archaeology, University of Bar-Ilan, Ramat Gan, Israel

PO446 - Comparative analysis of exome sequencing data reveals convergent selection of durum and bread wheat

Lorenzo Pancaldi ⁽¹⁾ - **Paolo Callipo** ⁽¹⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Eduard Akhunov** ⁽²⁾ - **Cristian Forestan** ⁽¹⁾

- ⁽¹⁾ University of Bologna, Department of Agricultural and Food Sciences (DISTAL), Bologna, Italy - ⁽²⁾ Kansas State University, Wheat Genetic Resources Center, Manhattan, United States

PO447 - Long-term evolution of root architecture response to soil nitrogen management in tetraploid wheat (*Triticum durum*)

Lengrand Salome ⁽¹⁾ - **Di Mattia Bartolo** ⁽²⁾ - **Collet Clothilde** ⁽¹⁾ - **Giunti Michela** ⁽²⁾ - **Zhou Congying** ⁽²⁾ - **Atsbeha Genet** ⁽²⁾ - **Noli Enrico** ⁽²⁾ - **Carini Eugenia** ⁽²⁾ - **Bozzoli Matteo** ⁽²⁾ - **Forestan Cristian** ⁽²⁾ - **Draye Xavier** ⁽¹⁾ - **Tuberosa Roberto** ⁽²⁾ - **Macaferri Marco** ⁽²⁾

⁽¹⁾ UCLouvain, Earth and Life Institute, Louvain-la-Neuve, Belgium - ⁽²⁾ University of Bologna, Dipartimento di Scienze e Tecnologie Agro-Alimentari, Bologna, Italy

PO448 - Digital characterization of chromosome centromeric haplotypes in polyploid wheat and their potential for breeding

Zihao Wang ⁽¹⁾ - **Zhaoyang Zhang** ⁽²⁾ - **Zhengzhao Yang** ⁽²⁾ - **Wenxi Wang** ⁽²⁾ - **Siqi Chen** ⁽²⁾ - **Jianxia Niu** ⁽²⁾ - **Xiaoming Xie** ⁽²⁾ - **Mingming Xin** ⁽²⁾ - **Yingyin Yao** ⁽²⁾ - **Zhaorong Hu** ⁽²⁾ - **Huiru Peng** ⁽²⁾ - **Zhongfu Ni** ⁽²⁾ - **Qixin Sun** ⁽²⁾ - **Weilong Guo** ⁽²⁾

⁽¹⁾ -, China Agricultural University; Institute of Crop Sciences, Chinese Academy of Agricultural Sciences, Beijing, China - ⁽²⁾ -, Frontiers Science Center for Molecular Design Breeding, China Agricultural University, Beijing, China

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PO449 - Unlocking Genetic Diversity for Climate-Resilient Durum Wheat Improvement

Meryem Zaim ⁽¹⁾ - **Noureddine El Haddad** ⁽²⁾ - **Andrea Visoni** ⁽¹⁾ - **Miguel Sanchez-Garcia** ⁽¹⁾ - **zakaria Kehel** ⁽³⁾ - **Amadou Tidiane Sall** ⁽⁴⁾ - **Rola El Amil** ⁽⁵⁾ - **Wasihun Lagesse** ⁽⁶⁾ - **Kachalla K. Mala Kachalla Mala** ⁽⁷⁾ - **Hajer Ben Ghanem** ⁽⁸⁾ - **Benjamin Kilian** ⁽⁹⁾ - **Filippo Maria Bassi** ⁽¹⁰⁾

⁽¹⁾ ICARDA, Genetic Innovation, Rabat, Morocco - ⁽²⁾ Mohammed VI Polytechnic University (UM6P), Plant Stress Resistance & Crop Improvement & Plant-Environment Interaction, Benguerir, Morocco - ⁽³⁾ ICARDA, Research Team Leader - Genetic Resources, conservation, characterization, and use (GRS)/ Country Coordinator, Rabat, Morocco - ⁽⁴⁾ Institut Sénégalais de Recherches Agricoles (ISRA), ISRA, Saint-Louis, Senegal - ⁽⁵⁾ Lebanese Agricultural Research Institute (LARI), LARI, Zahle, Lebanon - ⁽⁶⁾ Ethiopian Institute Agricultural Research (EIAR), EIAR, Addis Ababa, Ethiopia - ⁽⁷⁾ Lake Chad Research Institute, Cereals Research (LCRI), LCRI, Maiduguri, Nigeria - ⁽⁸⁾ National Agricultural Research Institute of Tunisia (INRAT), INRAT, tunis, Tunisia - ⁽⁹⁾ Global Crop Diversity Trust, BOLD Project Coordinator, Bonn, Germany - ⁽¹⁰⁾ International Center for Agricultural Research in the Dry Areas (ICARDA), Genetic Innovation, Rabat, Morocco

PO450 - High-Resolution Genomics Enables Rapid Gene Discovery in *Aegilops longissima*

Manas Ranjan Prusty ⁽¹⁾ - **May Parpar** ⁽¹⁾ - **Raz Avni** ⁽¹⁾ - **Anna Mintz-Dov** ⁽¹⁾ - **Davinder Shrama** ⁽¹⁾ - **Tomer Parpar** ⁽¹⁾ - **Brian J. Steffenson** ⁽²⁾ - **Brande B.H. Wulff** ⁽³⁾ - **Nir Sade** ⁽¹⁾ - **Amir Sharon** ⁽¹⁾

⁽¹⁾ Institute for Cereal and Crop Reseach, The George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv University, Tel Aviv, Israel - ⁽²⁾ University of Minnesota, Plant pathology, Minnesota, United States - ⁽³⁾ King Abdullah University of Science and Technology, King Abdullah University of Science and Technology, King Abdullah University of Science and Technology, Saudi Arabia

TOPIC 05

WHEAT GENOMES AND PANGENOMES

PO451 - Tracing the origin of non-brittle rachis alleles in wheat

Emile Cavalet-Giora ⁽¹⁾ - **Thomas Wicker** ⁽²⁾ - **Simon Krattinger** ⁽¹⁾

⁽¹⁾ KAUST, Plant Science Program, Thuwal, Saudi Arabia - ⁽²⁾ University of Zurich, Department of Plant and Microbial Biology, Zurich, Switzerland

PO452 - Unlocking Long-Range Haplotype Diversity in Synthetic Hexaploid Wheat for Breeding

Fernando Delgado Galvan ⁽¹⁾ - **Jesus Quiroz Chavez** ⁽¹⁾ - **Ana Backhaus** ⁽²⁾ - **Shifeng Cheng** ⁽³⁾ - **Christobal Uauy** ⁽⁴⁾ - **Susanne Dreisigacker** ⁽¹⁾

⁽¹⁾ CIMMYT, NA, Texcoco, Mexico - ⁽²⁾ IPK Gatersleben, NA, Quedlinburg, Germany - ⁽³⁾ NA, Hong Kong University, Hong Kong, China - ⁽⁴⁾ John Innes Center, NA, Norwich, United Kingdom

PO453 - From reference transcriptome to pangenome transcriptional diversity: regulatory networks controlling kernel development in durum wheat

Cristian Forestan ⁽¹⁾ - **Lorenzo Pancaldi** ⁽¹⁾ - **Rachel Rusholme-Pilcher** ⁽²⁾ - **Pavla Navratilova** ⁽³⁾ - **Salvatore Esposito** ⁽⁴⁾ - **Tiziana Sirangelo** ⁽⁵⁾ - **Elisabetta Mazzucotelli** ⁽⁶⁾ - **Monica Colombo** ⁽⁶⁾ - **Chiara Cappucci** ⁽¹⁾ - **Jennifer Ens** ⁽⁷⁾ - **Harmeet Chawla** ⁽⁸⁾ - **Victor Llaca** ⁽⁹⁾ - **Gianluca Moretti** ⁽¹⁰⁾ - **Davide Scaglione** ⁽¹⁰⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Silvio Salvi** ⁽¹⁾ - **Michele Morgante** ⁽¹¹⁾ - **Manuel Spannagl** ⁽¹²⁾ - **Anthony Hall** ⁽²⁾ - **Luigi Cattivelli** ⁽⁶⁾ - **Curtis Pozniak** ⁽⁷⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾

- ⁽¹⁾ University of Bologna, Department of Agricultural and Food Sciences (DISTAL), Bologna, Italy - ⁽²⁾ Earlham Institute, Norwich Research Park, Norwich, United Kingdom - ⁽³⁾ Ceitec, Masaryk University, Brno, Czech Republic - ⁽⁴⁾ CNR-IBBR, Institute of Biosciences and Bioresources, Portici, Naples, Italy - ⁽⁵⁾ ENEA-Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Casaccia Research Center, Rome, Italy - ⁽⁶⁾ CREA, Research Centre for Genomics and Bioinformatics, Fiorenzuola d'Arda, Italy - ⁽⁷⁾ University of Saskatchewan, Crop Development Centre and Department of Plant Sciences, Saskatoon, Canada - ⁽⁸⁾ University of Manitoba, Department of Plant Science, Winnipeg, Canada - ⁽⁹⁾ Corteva, Agriscience, Johnston, United States - ⁽¹⁰⁾ Istituto di Genomica Applicata, IGA Technology Services S.R.l, Udine, Italy - ⁽¹¹⁾ University of Udine, Department of Agricultural, Food, Environmental and Animal Sciences, Udine, Italy - ⁽¹²⁾ Helmholtz Zentrum München, German Research Center for Environmental Health (GmbH), Plant Genome and Systems Biology (PGSB), Neuherberg, Germany

PO454 - An ecosystem of digital tools to solve the FAIR data problem in the pan-genome era

Kerrie Forrest ⁽¹⁾ - **Don Isdale** ⁽¹⁾ - **James O'Dwyer** ⁽¹⁾ - **Mahdi Rahimi** ⁽¹⁾ - **Parampreet Kaur** ⁽¹⁾ - **Debbie Wong** ⁽¹⁾ - **Kenny Yu** ⁽¹⁾ - **Luisa Teasdale** ⁽¹⁾ - **Kanak Jain** ⁽¹⁾ - **Frank Su** ⁽¹⁾ - **Sally Norton** ⁽¹⁾ - **Gabriel Keeble-Gagnère** ⁽¹⁾ - **Matthew Hayden** ⁽¹⁾

⁽¹⁾ Agriculture Science and Technology, Agriculture Victoria, Melbourne, Australia

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PO455 - Digitalized Map of Homologous Clusters across Poaceae Species Unveil the Complex Evolutional Trajectory of Genes in Triticeae

Xiaoming Xie ⁽¹⁾ - **Yongming Chen** ⁽¹⁾ - **Yuqi Zhang** ⁽¹⁾ - **Zihao Wang** ⁽¹⁾ - **Yibo Wang** ⁽¹⁾ - **Peng Zhao** ⁽¹⁾ - **Huiru Peng** ⁽¹⁾ - **Chaojie Xie** ⁽¹⁾ - **Yingyin Yao** ⁽¹⁾ - **Zhongfu Ni** ⁽¹⁾ - **Qixin Sun** ⁽¹⁾ - **Weilong Guo** ⁽¹⁾

⁽¹⁾ Wheat Genetics and Genomics Center, China Agricultural University, Beijing, China

PO456 - Genomic Investigation of Wheat Genetic Improvement: Introgression, Disease Resistance, and Yield

Fei He He ⁽¹⁾

⁽¹⁾ NA, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing, China

PO457 - The IWGSC RefSeq 3.0 and a bread wheat pangenome providing access to worldwide diversity

Lasserre-Zuber Pauline ⁽¹⁾ - **Rimbert Hélène** ⁽¹⁾ - **Fengler Kevin** ⁽²⁾ - **Llaca Victor** ⁽²⁾ - **Buell Robin** ⁽³⁾ - **Hamilton John** ⁽³⁾ - **Johnson Catalina** ⁽⁴⁾ - **Gautier Véronique** ⁽¹⁾ - **Debiton Clément** ⁽¹⁾ - **Bouchet Sophie** ⁽¹⁾ - **Saintenac Cyrille** ⁽¹⁾ - **Benhamed Moussa** ⁽⁵⁾ - **Pereyra-Bistrain Leonardo** ⁽⁵⁾ - **Alaux Michael** ⁽⁶⁾ - **Choulet Frédéric** ⁽¹⁾ - **Sourdille Pierre** ⁽¹⁾ - **Stein Josh** ⁽⁷⁾ - **Eversole Kellye** ⁽⁷⁾

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PO458 - 10+ Wheat Genomes Project highlights that purifying selection on deleterious variants is shaped by the interactions between subgenomes and gene expression

Gwyneth Halstead-Nussloch ⁽¹⁾ - **Moeko Okada** ⁽¹⁾ - **Georg Haberer** ⁽²⁾ - **Thomas Lux** ⁽²⁾ - **A S M Faridul Islam** ⁽³⁾ - **Masaomi Hatakeyama** ⁽¹⁾ - **Roman Briskine** ⁽¹⁾ - **Benjamin White** ⁽⁴⁾ - **Anthony Hall** ⁽⁴⁾ - **Curtis Pozniak** ⁽⁵⁾ - **10+ Wheat Genome Project** ⁽⁵⁾ - **Manuel Spannagl** ⁽²⁾ - **Timothy Paape** ⁽⁶⁾ - **Kentaro K. Shimizu** ⁽¹⁾

⁽¹⁾ University of Zurich, Department of Evolutionary Biology and Environmental Studies, Zurich, Switzerland - ⁽²⁾ Helmholtz Zentrum München, German Research Center for Environmental Health, Munich, Germany - ⁽³⁾ Texas A&M University, Institute for Advancing Health through Agriculture, College Station, United States - ⁽⁴⁾ Earlham Institute, Norwich Research Park, Norwich, United Kingdom - ⁽⁵⁾ University of Saskatchewan, Crop Development Centre and Department of Plant Sciences, Saskatchewan, Canada - ⁽⁶⁾ USDA-ARS, Responsive Agriculture Food Systems Research Unit, College Station, United States

TOPIC 06

WHEAT FUNCTIONAL GENOMICS

PO459 - Revealing the role of IBH1 in brassinosteroid biosynthesis and signalling via CRISPR-Cas9 knockout in durum wheat

Chiara D'Attilia ⁽¹⁾ - **Marco Bonarrigo** ⁽¹⁾ - **Mark Smedley** ⁽²⁾ - **Samuela Palombieri** ⁽¹⁾ - **Valentina Buffagni** ⁽³⁾ - **Sadiye Hayta** ⁽³⁾ - **Stefania Masci** ⁽¹⁾ - **Francesco Sestili** ⁽¹⁾

⁽¹⁾ University of Tuscia, Department of Agriculture and Forest Sciences (DAFNE), Viterbo, Italy - ⁽²⁾ John Innes Centre, Department of Crop Genetics, Norwich, United Kingdom - ⁽³⁾ John Innes Centre, Department of Crop Genetics, Norwich, United Kingdom

PO460 - K-mer-based GWAS in a wheat collection reveals novel and diverse sources of powdery mildew resistance

Benjamin Jaegle ⁽¹⁾ - **Yoav Voicheck** ⁽²⁾ - **Max Haupt** ⁽³⁾ - **Alexandros Sotiropoulos** ⁽⁴⁾ - **Kevin Gauthier** ⁽⁵⁾ - **Matthias Heuberger** ⁽⁶⁾ - **Esther Jung** ⁽⁷⁾ - **Gerhard Herren** ⁽⁶⁾ - **Victoria Widrig** ⁽⁸⁾ - **Rebecca Leber** ⁽⁶⁾ - **Yipu Li** ⁽⁶⁾ - **Beate Schierscher** ⁽⁷⁾ - **Sara Serex** ⁽⁷⁾ - **Maja Boczkowska** ⁽⁹⁾ - **Marta Puchta-Jasińska** ⁽⁹⁾ - **Paulina Bolc** ⁽⁹⁾ - **Nils Stein** ⁽¹⁰⁾ - **Boulos Chalhoub** ⁽⁷⁾ - **Beat Keller** ⁽⁶⁾ - **Javier Sanchez Martin** ⁽¹¹⁾

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IWC4 2026 - SELECTED ORAL TALKS

PO461 - Cloning of diverse disease resistance genes from wild emmer wheat for breeding

Miaomiao Li ⁽¹⁾ - **Keyu Zhu** ⁽¹⁾ - **Huaizhi Zhang** ⁽¹⁾ - **Ping Lu** ⁽¹⁾ - **Qihong Wu** ⁽²⁾ - **Yongxing Chen** ⁽²⁾ - **Guanghao Guo** ⁽¹⁾ - **Gaojie Wang** ⁽¹⁾ - **Lingli Dong** ⁽¹⁾ - **Zhiyong Liu** ⁽¹⁾

⁽¹⁾ Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing, China - ⁽²⁾ Institute of Biotechnology, Xianghu Laboratory, Hangzhou, China

PO462 - Rudimentary Basal Spikelet Formation in Wheat: The Tug-of-War Between Vegetative and Differentiation

Yunchuan Liu ⁽¹⁾ - **Sophie Carpenter** ⁽¹⁾ - **Nikolai M. Adamski** ⁽¹⁾ - **Maximillian Jones** ⁽¹⁾ - **James Simmonds** ⁽¹⁾ - **Katie Long** ⁽²⁾ - **Cristobal Uauy** ⁽¹⁾

⁽¹⁾ John Innes Centre, Crop Genetics, Norwich, United Kingdom - ⁽²⁾ The Sainsbury laboratory, Cambridge University, Cambridge, United Kingdom

PO463 - A TaKNOX1-TaAPO1-Rht1 feedback regulation orchestrates grain number and yield in wheat

Zhongyin Deng ⁽¹⁾ - **Qihang Chen** ⁽¹⁾ - **Shuoxun Wang** ⁽²⁾ - **Yuqing Che** ⁽¹⁾ - **Shaoshuai Liu** ⁽¹⁾ - **Xiuzhi Wei** ⁽¹⁾ - **Wanxin Xu** ⁽¹⁾ - **Dada Cui** ⁽¹⁾ - **Guoliang Chen** ⁽¹⁾ - **Xinyu Zou** ⁽¹⁾ - **Ziyang Wang** ⁽¹⁾ - **Tianhua Chen** ⁽¹⁾ - **Shuai Feng Gen** ⁽¹⁾ - **Xiangdong Fu** ⁽²⁾ - **Aili Li** ⁽¹⁾ - **Long Mao** ⁽¹⁾

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PO464 - Spatial transcriptomics of developing wheat seed reveals concentric gene expression zones and subgenome biased expression of key genes

Tori Millstead ⁽¹⁾ - **David Kainer** ⁽²⁾ - **Robert Sullivan** ⁽³⁾ - **Xiaohuan Sun** ⁽⁴⁾ - **Ka Leung Li** ⁽⁴⁾ - **Likai Mao** ⁽⁴⁾ - **Arlie Macdonald** ⁽²⁾ - **Robert Henry** ⁽¹⁾

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PO465 - Grain Number Increase 2 (GNI2) improves floret fertility and enhances grain yield in wheat

Shun Sakuma ⁽¹⁾ - **Matteo Bozzoli** ⁽²⁾ - **Guy Golan** ⁽³⁾ - **Manar Makhoul** ⁽⁴⁾ - **Cristian Forestan** ⁽²⁾ - **Kenan Tan** ⁽³⁾ - **Ahmed Raza Khan** ⁽³⁾ - **Francesco De Sario** ⁽²⁾ - **Sara Milner** ⁽²⁾ - **Giuseppe Sciara** ⁽²⁾ - **Chuny Liu** ⁽²⁾ - **Elisabetta Frascaroli** ⁽²⁾ - **Fumitaka Abe** ⁽⁵⁾ - **Goetz Hensel** ⁽⁶⁾ - **Jia-Wu Feng** ⁽⁷⁾ - **Martin Mascher** ⁽⁷⁾ - **Karim Ammar** ⁽⁸⁾ - **Mikiko Kojima** ⁽⁹⁾ - **Masanori Okamoto** ⁽⁹⁾ - **Roberto Tuberosa** ⁽²⁾ - **Silvio Salvi** ⁽²⁾ - **Rod Snowdon** ⁽⁴⁾ - **Marco Maccaferri** ⁽²⁾ - **Thorsten Schnurbusch** ⁽³⁾

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PO466 - Green Be Gone: Transcription Factor NAC3 Regulates Wheat Senescence

Becca Testa ⁽¹⁾ - **Emilie Knight** ⁽¹⁾ - **Edward Banbury** ⁽¹⁾ - **Sophie Harrington** ⁽¹⁾ - **Sadiye Hayta** ⁽¹⁾ - **Mark Smedley** ⁽¹⁾ - **David Seung** ⁽²⁾ - **Philippa Borrill** ⁽¹⁾

⁽¹⁾ John Innes Centre, Crop Genetics Department, Norwich, United Kingdom - ⁽²⁾ John Innes Centre, Biochemistry & Metabolism Department, Norwich, United Kingdom

TOPIC 07

INNOVATIVE WHEAT BREEDING

PO467 - Genomic breeding for dryland durum at ICARDA

Filippo Bassi ⁽¹⁾ - **Amadou Tidiane Sall** ⁽²⁾ - **Amit Gautam** ⁽³⁾ - **Hafssa Kabbaj** ⁽¹⁾ - **Meryam Zaim** ⁽¹⁾ - **Yaman Jabbour** ⁽⁴⁾ - **Wasihun Lagesse** ⁽⁵⁾ - **Rodomiro Ortiz** ⁽⁶⁾ - **Augusto Luis Becerra** ⁽¹⁾

⁽¹⁾ ICARDA, na, Rabat, Morocco - ⁽²⁾ ISRA, Breeding, Saint Louis, Senegal - ⁽³⁾ ICARDA, Breeding, Amlaha, India - ⁽⁴⁾ GCSAR, Breeding, Aleppo, Syrian Arab Republic - ⁽⁵⁾ EIAR, Breeding, Debre Zeit, Ethiopia - ⁽⁶⁾ SLU, Genetics, Alnarp, Sweden

PO468 - An AI-guided breeding toolkit for durable multi-disease resistance in wheat

Lee Hickey ⁽¹⁾ - **Seema Yadav** ⁽¹⁾ - **Jingyang Tong** ⁽¹⁾ - **Eric Dinglasan** ⁽¹⁾ - **Dilani Jambuthenne** ⁽¹⁾ - **Zerihun Tadesse** ⁽²⁾ - **Peter Dodds** ⁽³⁾ - **Melania Figueroa** ⁽³⁾ - **Jana Sperschneider** ⁽³⁾ - **Rohit Mago** ⁽³⁾ - **Meredith McNeil** ⁽³⁾ - **Shannon Dillon** ⁽³⁾ - **Ben Hayes** ⁽¹⁾

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IWC4 2026 - SELECTED ORAL TALKS

PO469 - In vitro fertilization system with wheat, rice and maize gametes: Production of cytoplasmic hybrid between wheat and rice/maize across subfamily

Takashi Okamoto ⁽¹⁾ - **Tety Maryenti** ⁽²⁾ - **Nonoka Onda** ⁽¹⁾ - **Aya Satoh** ⁽¹⁾ - **Nowroz Farzana** ⁽¹⁾ - **Shizuka Koshimizu** ⁽³⁾ - **Offiong Ukpong Edet** ⁽⁴⁾ - **Ryosuke Mega** ⁽⁵⁾ - **Kentaro Yano** ⁽⁶⁾ - **Takayoshi Ishii** ⁽⁷⁾

⁽¹⁾ Tokyo Metropolitan University, Biological Sciences, Tokyo, Japan - ⁽²⁾ Universitas Indonesia, Mathematics and Natural Sciences, Depok, Indonesia - ⁽³⁾ National Institute of Genetics, Bioinformation and DDBJ Center, Mishima, Japan - ⁽⁴⁾ Tottori University, International Platform for Dryland Research and Education, Tottori, Japan - ⁽⁵⁾ Kobe University, Agricultural Science, Kobe, Japan - ⁽⁶⁾ WellGreen-i Co. Ltd., WellGreen-i Co. Ltd., Kanagawa, Japan - ⁽⁷⁾ Tottori University, Arid Land Research Center, Tottori, Japan

PO470 - Integrative Platform for Accelerated Development of Wheat Varieties via Multiplex Genome Editing

Claudia Payacan-Ortiz ⁽¹⁾ - **Marco Montes de Oca** ⁽¹⁾ - **Sebastian Castillo Castro** ⁽¹⁾ - **Constanza Castro** ⁽¹⁾ - **Ariel Gutierrez** ⁽¹⁾ - **Francisca Castillo Castro** ⁽¹⁾

⁽¹⁾ Neocrop Technologies, -, Valdivia, Chile

PO471 - From haplotype-based QTL mapping to founder-resolved pangenomics: dissecting multi-disease resistance architecture in a wheat MAGIC population

Anne-Kathrin Pfrieme ⁽¹⁾ - **Antonia Lisker** ⁽¹⁾ - **Wiebke Sannemann** ⁽²⁾ - **Jane Gohlisch** ⁽¹⁾ - **Ebrahim Kazman** ⁽³⁾ - **Hilmar Cöster** ⁽⁴⁾ - **Josef Holzapfel** ⁽⁵⁾ - **Erhard Ebmeyer** ⁽⁶⁾ - **Marvin Behnke** ⁽¹⁾ - **Thomas Schmutzer** ⁽¹⁾ - **Andreas Maurer** ⁽¹⁾ - **Klaus Pillen** ⁽¹⁾

⁽¹⁾ Martin-Luther-University Halle-Wittenberg, Martin-Luther-University Halle-Wittenberg Institute of Agricultural and Nutritional Sciences, Chair of Plant Breeding, Halle (Saale), Germany - ⁽²⁾ KWS SAAT SE & Co. KGaA, KWS SAAT SE & Co. KGaA, Einbeck, Germany - ⁽³⁾ Syngenta Seeds GmbH, 3Syngenta Seeds GmbH, Oschersleben, Germany - ⁽⁴⁾ RAGT 2n, RAGT 2n, Wernigerode, Germany - ⁽⁵⁾ Secobra Saatzucht GmbH, Secobra Saatzucht GmbH, Moosburg an der Isar, Germany - ⁽⁶⁾ KWS Lochow GmbH, KWS Lochow GmbH, Bergen, Germany

PO472 - Integrating Genomics, Multi-Trait Multi-Environment Modeling, and Multimodal Deep Learning Frameworks for Predicting Yield Components in Mediterranean Durum Wheat

Damiano Puglisi ⁽¹⁾ - **Paolo Vitale** ⁽²⁾ - **Jaime Cuevas** ⁽³⁾ - **Fabio Fania** ⁽¹⁾ - **Salvatore Esposito** ⁽⁴⁾ - **Abelardo Montesinos-López** ⁽⁵⁾ - **Osvaal Montesinos-López** ⁽⁶⁾ - **José Crossa** ⁽⁷⁾ - **Pasquale De Vita** ⁽¹⁾

⁽¹⁾ Council for Agricultural Research and Economics (CREA), Research Centre for Cereal and Industrial Crops (CI), Foggia, Italy - ⁽²⁾ International Maize and Wheat Improvement Center (CIMMYT), Carretera México Veracruz, El Batán, Texcoco, Estado de México, Mexico - ⁽³⁾ Universidad Autónoma del Estado de Quintana Roo, Division de Ciencias, Ingeniería y Tecnología (DCIT), Chetumal, Quintana Roo, Mexico - ⁽⁴⁾ National Research Council of Italy (CNR), Institute of Biosciences and BioResources (IBBR), Research Division Portici, Portici, Italy - ⁽⁵⁾ Universidad de Guadalajara, Centro Universitario de Ciencias Exactas e Ingenierías (CUCEI), Guadalajara, Jalisco, Mexico - ⁽⁶⁾ Universidad de Colima, Facultad de Telemática, Colima, Mexico - ⁽⁷⁾ Colegio de Postgraduados, Campus Montecillo, Carretera México Texcoco, Montecillo, Texcoco, Estado de México, Mexico

PO473 - Predictive Breeding Applications in Wheat Using Genomics and Phenomics through Artificial Intelligence and Computer-Vision

Paolo Vitale ⁽¹⁾ - **Jose Crossa** ⁽²⁾ - **Abelardo Montesinos-López** ⁽³⁾ - **Karim Ammar** ⁽⁴⁾ - **Susanne Dreisigacker** ⁽⁴⁾ - **Osvaal Montesinos-López** ⁽⁵⁾ - **Keith Gardner** ⁽¹⁾ - **Matthew Reynolds** ⁽⁴⁾ - **Guillermo Gerard** ⁽⁴⁾ - **Jussi Gillberg** ⁽⁶⁾

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PO474 - Wheat genome editing: from prime editing to large DNA fragment editing

Yuan Zong ⁽¹⁾ - **Yidi Zhao** ⁽¹⁾ - **Pei Ni** ⁽¹⁾ - **Ximeng Zhou** ⁽¹⁾ - **Zehua Liu** ⁽¹⁾ - **Zhongfu Ni** ⁽¹⁾ - **Qixin Sun** ⁽¹⁾ - **Yanpeng Wang** ⁽²⁾

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TOPIC 08

DEVELOPING CLIMATE-SMART WHEAT IN THE CONTEXT OF ABIOTIC STRESSES

PO475 - An XTH gene modulates root exudate-substrate cohesion

Emily Carr ⁽¹⁾ - **Sacha Przewieslik-Allen** ⁽¹⁾ - **Keith Edwards** ⁽¹⁾ - **Malcolm Hawkesford** ⁽²⁾ - **Xiaoxian Zhang** ⁽²⁾ - **Hannah Cooper** ⁽³⁾ - **Richard Whalley** ⁽²⁾ - **Sacha Mooney** ⁽³⁾ - **Claire Grierson** ⁽¹⁾

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IWC4 2026 - SELECTED ORAL TALKS

PO476 - Leveraging Wild Emmer Wheat Diversity to Unlock Adaptive Traits to Improve Drought-Resilience in Durum Wheat.

Giulia Castorina ⁽¹⁾ - **Davide Guerra** ⁽¹⁾ - **Luigi Cattivelli** ⁽¹⁾ - **Elisabetta Mazzucotelli** ⁽¹⁾ - **Francesca Desiderio** ⁽¹⁾

⁽¹⁾ Council for Agricultural Research and Economics (CREA), Research Centre for Genomics & Bioinformatic, Fiorenzuola d'Arda, Italy

PO477 - Exploring the role of NAM-2 in delaying drought-induced senescence in wheat

Miles Curl ⁽¹⁾ - **Catherine Famelton** ⁽²⁾ - **Chris Burt** ⁽³⁾ - **Nick Bird** ⁽⁴⁾ - **Rachel Goddard** ⁽⁵⁾ - **Gurpinder Singh Sidhu** ⁽⁶⁾ - **Richard Morris** ⁽⁶⁾ - **Philippa Borrill** ⁽¹⁾

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PO478 - Wheat's Heat Strategy: Linking Stomatal Traits, Sugar Dynamics, and Grain Omics to Heat Tolerance

Seidat Oluwadamilola Dauda ⁽¹⁾ - **ZhongHua Chen** ⁽²⁾ - **Michelle Donovan-Mak** ⁽¹⁾ - **Jay Bose** ⁽¹⁾

⁽¹⁾ Western Sydney University, School of Science, Penrith, Australia - ⁽²⁾ School of Agriculture, Food and Wine, University of Adelaide, Adelaide, Australia

PO479 - From root to grain: multi-omics reveals how nitrogen, CO₂, and microbes tune wheat drought resilience and grain quality

Utpal Bose ⁽¹⁾ - **Jennifer Michel** ⁽²⁾ - **Claire Leon** ⁽³⁾ - **Cassandra Pegg** ⁽⁴⁾ - **David J. Beale** ⁽⁵⁾ - **Bhabananda Biswas** ⁽⁶⁾ - **Mohammad Mahmud Rahman** ⁽⁶⁾ - **Biswajit Biswas** ⁽⁷⁾ - **Shahida A Mitu** ⁽⁸⁾ - **Sally Stockwell** ⁽⁴⁾ - **Keren Byrne** ⁽⁴⁾ - **Frédéric Serre** ⁽⁹⁾ - **David Cormier** ⁽⁹⁾ - **Boris Adam** ⁽⁹⁾ - **Marie Leguillon** ⁽⁹⁾ - **Sibille Perrochon** ⁽³⁾ - **Michelle L Colgrave** ⁽¹⁰⁾ - **BIOFAIR Consortium** ⁽²⁾ - **Hervé Vanderschuren** ⁽¹¹⁾ - **Cécile Thonar** ⁽¹²⁾ - **Pierre Delaplace** ⁽²⁾ - **Angela Juhasz** ⁽¹³⁾ - **Jacques Le Gouis** ⁽³⁾

⁽¹⁾ CSIRO Agriculture and Food, Edith Cowan University, ARC CoE CIPPS, CHANCE, School of Science, St Lucia, Australia - ⁽²⁾ University of Liège, Plant Sciences, TERRA teaching and research centre, Gembloux Agro-Bio Tech, Gembloux, Belgium - ⁽³⁾ INRAE, UMR GDEC, Clermont-Ferrand, France - ⁽⁴⁾ CSIRO, Agriculture and Food, St Lucia, Australia - ⁽⁵⁾ CSIRO, Environment, Ecosciences Precinct, Dutton Park, Australia - ⁽⁶⁾ The University of Newcastle, Global Centre for Environmental Remediation (GCER), College of Engineering, Science and Environment, Callaghan Campus, Australia - ⁽⁷⁾ The University of Queensland, Institute for Molecular Bioscience, Brisbane, Australia - ⁽⁸⁾ Edith Cowan University, ARC CoE CIPPS, School of Science, Joondalup, Australia - ⁽⁹⁾ INRAE, UE PHACC, Clermont-Ferrand, France - ⁽¹⁰⁾ CSIRO Agriculture and Food, Edith Cowan University, ARC CoE CIPPS, CHANCE, School of Science, St Lucia, Australia - ⁽¹¹⁾ KULeuven, Laboratory for Tropical Crop Improvement, Crop Biotechnics, Faculty of Bioscience Engineering, Leuven, Belgium - ⁽¹²⁾ Université Libre de Bruxelles, Agroecology lab, Sciences Faculty, Bruxelles, Belgium - ⁽¹³⁾ Edith Cowan University, ARC CoE CIPPS, CHANCE, School of Science, Joondalup, Australia

PO480 - Wheat responses to combined drought, heat, and elevated CO₂: integrative morpho-physiological and transcriptomic insights under future climate scenarios

Zbynek Milec ⁽¹⁾ - **Kashif Nawaz** ⁽²⁾ - **Swati Puranik** ⁽³⁾ - **Anna Nowicka** ⁽⁴⁾ - **Martin Kovacik** ⁽⁴⁾ - **Hana Findurova** ⁽¹⁾ - **Emmanuel Opoku** ⁽¹⁾ - **Ales Pecinka** ⁽⁴⁾ - **Karel Klem** ⁽¹⁾ - **Otmar Urban** ⁽¹⁾ - **Pranav Pankaj Sahu** ⁽¹⁾

⁽¹⁾ Global Change Research Institute, Laboratory of Ecological Plant Physiology, Brno, Czech Republic - ⁽²⁾ King Abdullah University of Science and Technology (KAUST), Biological and Environmental Science and Engineering, Thuwal, Saudi Arabia - ⁽³⁾ Rothamsted Research, Plant and Crop Molecular Physiology, Rothamsted, United Kingdom - ⁽⁴⁾ Institute of Experimental Botany of the Czech Academy of Sciences, Centre of Plant Structural and Functional Genomics, Olomouc, Czech Republic

PO481 - Regulatory Variation at TaNPF2.12 Shapes Nitrogen-Responsive Root Plasticity and Nitrogen Use Efficiency in Winter Wheat

Grace Achieng Ochieng ⁽¹⁾ - **Luc Gujer** ⁽¹⁾ - **Annaliese Mason** ⁽¹⁾ - **Agim Ballvora** ⁽¹⁾

⁽¹⁾ The University of Bonn, Plant Breeding, Bonn, Germany

PO482 - Identification and Functional Characterization of WUE and Drought Resilience Factors in Wheat

Yuxin Zhou ⁽¹⁾ - **Xiaohan Wang** ⁽¹⁾ - **Yuan Cao** ⁽¹⁾ - **Xuelei Lin** ⁽¹⁾ - **Jun Xiao** ⁽¹⁾

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IWC4 2026 - SELECTED ORAL TALKS

TOPIC 09

DISSECTING THE WHEAT-PATHOGEN AND PEST INTERACTION

PO483 - Non-host resistance genes – new sources for durable rust resistance?

Urooj Fatima ⁽¹⁾ - **Natalia Arango** ⁽¹⁾ - **Umar F. Shahul Hameed** ⁽²⁾ - **Francisco J. Guzmán-Vega** ⁽²⁾ - **Emile Cavalet-Giorsa** ⁽¹⁾ - **Naganand Rayapuram** ⁽¹⁾ - **Heribert Hirt** ⁽¹⁾ - **Michael Abrouk** ⁽¹⁾ - **Yajun Wang** ⁽¹⁾ - **Jonathan D. G. Jones** ⁽³⁾ - **Stefan T. Arold** ⁽²⁾ - **Simon G. Krattinger** ⁽¹⁾

⁽¹⁾ King Abdullah University Of Science And Technology, Plant Science Program, Biological and Environmental Science and Engineering Division, Thuwal, Saudi Arabia - ⁽²⁾ King Abdullah University Of Science And Technology, Bioengineering Program, Biological and Environmental Science and Engineering Division, Thuwal, Saudi Arabia - ⁽³⁾ The Sainsbury Laboratory, University of East Anglia, Norwich, United Kingdom

PO484 - Identification of Candidate Genes for Resistance to Soil-Borne Cereal Mosaic Virus in Durum Wheat using CRISPR-Cas9 Genome Editing Systems

Lorenzo Calzini ⁽¹⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Jochen Kumlehn** ⁽²⁾ - **Cristian Forestan** ⁽¹⁾ - **Luca Vitali** ⁽¹⁾ - **Ambra Viviani** ⁽¹⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Marco Maccaferri** ⁽¹⁾ - **Robert Eric Hoffie** ⁽²⁾ - **Francesco Camerlengo** ⁽¹⁾

- ⁽¹⁾ University of Bologna, Department of Agricultural and Food Sciences (DISTAL), BOLOGNA, Italy - ⁽²⁾ Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Plant Reproductive Biology, GATERSLEBEN-SEELAND, Italy

PO485 - Pan-genome facilitated discovery of dominant North American stripe rust lineage's origin in somatic hybridization

Samuel Holden ⁽¹⁾ - **Meng Li** ⁽¹⁾ - **Mehrdad Abbasi** ⁽²⁾ - **Ramandeep Bamrah** ⁽²⁾ - **Sang Hu Kim** ⁽³⁾ - **Sean Formby** ⁽³⁾ - **Sean Walkowiak** ⁽⁴⁾ - **Guus Bakkeren** ⁽³⁾ - **Gurcharn Singh Brar** ⁽¹⁾

⁽¹⁾ University of Alberta, Faculty of Agricultural, Life and Environmental Science,, Edmonton, Canada - ⁽²⁾ University of British Columbia, Faculty of Land and Food Systems, Vancouver, Canada - ⁽³⁾ Agriculture and Agri-Food Canada, Summerland Research Centre, Summerland, Canada - ⁽⁴⁾ Canadian Grain Commission, Grain Research Laboratory, Winnipeg, Canada

PO486 - Twenty years of global disease surveillance in wheat reveals increased vulnerability to yellow rust due to incursions of new aggressive races at regional and global scales

Mogens Støvring Hovmøller ⁽¹⁾ - **Thach Tine** ⁽¹⁾ - **Marcel Meyer** ⁽²⁾ - **Shideh Mojerlou** ⁽¹⁾ - **Jens Grønbech-Hansen** ⁽¹⁾ - **David Hodson** ⁽³⁾ - **Annemarie Fejer Justesen** ⁽¹⁾

⁽¹⁾ Aarhus University, Agroecology, Slagelse, Denmark - ⁽²⁾ University of Bonn, Crop Science, Bonn, Germany - ⁽³⁾ CIMMYT, CIMMYT Nepal, Kathmandu, Nepal

PO487 - Loci relevant for yellow rust resistance in a Mediterranean multi-environmental trial networks identified from the Global Durum Genomic Resource

Chunyi Liu ⁽¹⁾ - **Francesco De Sario** ⁽¹⁾ - **Muhammad Awais Farooq** ⁽¹⁾ - **Jad B Novi** ⁽²⁾ - **Ambra Viviani** ⁽¹⁾ - **Alessia Confortini** ⁽³⁾ - **Eugenia Carini** ⁽¹⁾ - **Matteo Bozzoli** ⁽¹⁾ - **Cristian Forestan** ⁽¹⁾ - **Sandra Stefanelli** ⁽¹⁾ - **Elisabetta Mazzucotelli** ⁽⁴⁾ - **Francesca Desiderio** ⁽⁴⁾ - **Anna Maria Mastrangelo** ⁽⁵⁾ - **Daniela Marone** ⁽⁵⁾ - **Paola Viola** ⁽⁶⁾ - **Carlo Invernizzi** ⁽⁶⁾ - **Rola El Amil** ⁽⁷⁾ - **Nazari Kumarse** ⁽⁸⁾ - **Hakan Hozkan** ⁽⁹⁾ - **Isam Bashour** ⁽¹⁰⁾ - **Mohamed E Sharif Ragab** ⁽¹¹⁾ - **Idrissi Omar** ⁽¹²⁾ - **Pablo Roncallo** ⁽¹³⁾ - **Zahara Pourkhorshid** ⁽¹⁴⁾ - **Filippo M. Bassi** ⁽¹⁵⁾ - **Luigi Cattivelli** ⁽⁴⁾ - **Roberto Tuberosa** ⁽¹⁾ - **Agata Gadaleta** ⁽¹⁴⁾ - **Marco Maccaferri** ⁽¹⁾

- ⁽¹⁾ University Of Bologna, Department Of Agricultural And Food Sciences (Distal), Bologna, Italy - ⁽²⁾ Open Field, Open Field, Parma, Italy - ⁽³⁾ University College Dublin, Ucd School Of Biology And Environmental Science, Ucd Earth Institute And Ucd Institute Of Food And Health, Dublin, Ireland - ⁽⁴⁾ Crea, Research Centre For Genomics And Bioinformatics, Fiorenzuola D'arda - Piacenza, Italy - ⁽⁵⁾ Crea, Research Centre For Cereal And Industrial Crops, Foggia, Italy - ⁽⁶⁾ Apsov Sementi Spa, Apsov Sementi Spa, Voghera - Pavia, Italy - ⁽⁷⁾ Icarda, International Center For Agricultural Research In The Dry Areas, Biodiversity And Crop Improvement Program, Regional Cereal Rust Research Center (Rcrr, Menemen, Izmir, Turkey - ⁽⁸⁾ University Of Çukurova, Department Of Field Crops, Faculty Of Agriculture, Adana, Turkey - ⁽⁹⁾ American University Of Beirut, Department Of Agriculture, Faculty Of Agricultural And Food Sciences, Beirut, Lebanon - ⁽¹⁰⁾ Beni Suf University, Agronomy Department, Faculty Of Agriculture, West Nile, Egypt - ⁽¹¹⁾ Inrae-M, Laboratory Of Food Legumes Breeding, Regional Center Of Agricultural Research Of Settat, National, Institute Of Agricultural Research, Rabat, Morocco - ⁽¹²⁾ Centro De Recursos Naturales Renovables De La Zona Semiárida (Cezros), Departamento De Agronomía, Universidad Nacional Del Sur (Uns)-Conicet, Buenos Aires, Argentina - ⁽¹³⁾ Shiraz University, Department Of Plant Production And Genetics, School Of Agriculture, Shiraz, Iran (Islamic Republic Of) - ⁽¹⁴⁾ Università Degli Studi Aldo Moro, Department Of Agricultural And Environmental Science, Bari, Italy - ⁽¹⁵⁾ Icarda, International Center For Agricultural Research In The Dryareas, Rabat, Morocco

IWC4 2026 - SELECTED ORAL TALKS

PO488- Dual recognition of structurally unrelated mildew effectors underlies the broad-spectrum resistance of Pm3e in wheat

Marion Müller ⁽¹⁾ - **Lukas Kunz** ⁽²⁾ - **Zoe Bernasconi** ⁽²⁾ - **Matthias Heuberger** ⁽²⁾ - **Beat Keller** ⁽²⁾

⁽¹⁾ NA, 2 Chair of Phytopathology, TUM School of Life Sciences, Technical University of Munich, Freising, Germany - ⁽²⁾ NA, Department of Plant and Microbial Biology, University of Zurich, Zürich, Switzerland

PO489 - Meta-QTL analyses for better characterisation of the genetic architecture of bread wheat resistance to Septoria tritici blotch

Laura Paire ⁽¹⁾ - **Jean-Noël Thauvin** ⁽²⁾ - **Yannick De-Olivera** ⁽³⁾ - **Florian Pinot** ⁽⁴⁾ - **Thierry C. Marcel** ⁽⁵⁾ - **Cyrille Saintenac** ⁽¹⁾

⁽¹⁾ INRAE, Université Clermont-Auvergne, GDEC, Clermont-Ferrand, France - ⁽²⁾ RAGT 2n, -, Druelle, France - ⁽³⁾ INRAE, CNRS, Université Paris Saclay, GQE-Le Moulon, Gif-sur-Yvette, France - ⁽⁴⁾ Agri-Obtentions, -, Guyancourt, France - ⁽⁵⁾ INRAE, Université Paris-Saclay, Bioger, Palaiseau, France

PO490 - Asymmetric priority effects between co-infecting wheat pathogens undermine single-pathogen resistance

Kar-Chun Tan ⁽¹⁾ - **Leon Lenzo** ⁽¹⁾ - **Evan John** ⁽²⁾ - **Jason Bradley** ⁽³⁾ - **Geoff Thomas** ⁽³⁾ - **Dion Bennett** ⁽⁴⁾

⁽¹⁾ Centre For Crop and Disease Management, Curtin University, Perth, Australia - ⁽²⁾ Institute of Crop Science and Resource Conservation, University of Bonn, Bonn, Germany - ⁽³⁾ Department of Primary Industries and Regional Development, Department of Primary Industries and Regional Development, Perth, Australia - ⁽⁴⁾ Australian Grains Technologies, Australian Grains Technologies, Northam, Australia

TOPIC 10

WHEAT QUALITY, END-USE PROCESSING, NUTRITION AND HUMAN-HEALTH

PO491 - Development of High Dietary Fiber Wheat through Introgression of β -Glucan-Rich Alleles from *Aegilops kotschy*

Upendra Kumar ⁽¹⁾ - **Sourav Panigrahi** ⁽¹⁾

⁽¹⁾ Department of Plant Science, Mahatma Jyotiba Phule Rohilkhand University, Bareilly, India

PO492 - Clinical trials investigating the health-promoting effects of Svevo high-amylose products on patients affected by concomitant Chron's disease and metabolic syndrome

Barbara Laddomada ⁽¹⁾ - **Angelo Santino** ⁽¹⁾ - **Samuela Palombieri** ⁽²⁾ - **Francesco Sestili** ⁽²⁾ - **Alessandro Miraglia** ⁽³⁾ - **Elisabetta Cavalcanti** ⁽⁴⁾ - **Marcello Chieppa** ⁽³⁾

⁽¹⁾ CNR ISPA, DISBA, Bari, Italy - ⁽²⁾ University of Tuscia, Department of Agriculture and Forest Sciences (DAFNE), Viterbo, Italy - ⁽³⁾ University of Salento, Department of Experimental Medicine, Lecce, Italy - ⁽⁴⁾ IRCCS DE BELLIS, Inflammatory Bowel Disease Unit, National Institute of Gastroenterology, Castellana Grotte, Italy

PO493 - Exploiting natural variation in starch granule size and composition in *Aegilops tauschii* to improve wheat starch

Rose McNelly ⁽¹⁾

⁽¹⁾ John Innes Centre, Biochemistry and Metabolism, Norwich, United Kingdom

PO494 - Optimizing Selenium and Sulphur Foliar Fertilization to Enhance Nutritional and Technological Quality of Bread Wheat

Antonio Pescatore ⁽¹⁾ - **Lorenzo Guerrini** ⁽²⁾ - **Yidenekachew Beshah** ⁽¹⁾ - **Marco Napoli** ⁽¹⁾

⁽¹⁾ University of Florence, Department of Agriculture, Food, Environment and Forestry (DAGRI), Florence, Italy - ⁽²⁾ University of Padua, Department of Land, Environment, Agriculture and Forestry (TESAF), Padua, Italy

PO495 - Mapping the Landscape of Carotenoid Esterification in the Global Durum Panel

Cristina Rodríguez-Suárez ⁽¹⁾ - **María Dolores Requena-Ramírez** ⁽¹⁾ - **Elisabetta Mazzucotelli** ⁽²⁾ - **Dámaso Hornero-Méndez** ⁽³⁾ - **Sergio G Atienza** ⁽¹⁾

⁽¹⁾ Instituto de Agricultura Sostenible, CSIC, Córdoba, Spain - ⁽²⁾ Research Centre for Genomics & Bioinformatics, Fiorenzuola d'Arda (PC), Council for Agricultural Research and Economics (CREA), Fiorenzuola d'Arda, Italy - ⁽³⁾ Department of Food Phytochemistry, Instituto de la Grasa, CSIC, Sevilla, Spain

PO496 - Pleiotropic genetic network underlying grain storage protein composition in bread wheat

Naoto Sano ⁽¹⁾ - **Anne Plessis** ⁽²⁾ - **Catherine Ravel** ⁽¹⁾ - **Pierre Martre** ⁽³⁾ - **Jacques Le Gouis** ⁽¹⁾

⁽¹⁾ INRAE, GDEC, Clermont-Ferrand, France - ⁽²⁾ University of Plymouth, School of Biological and Marine Sciences, Plymouth, United Kingdom - ⁽³⁾ INRAE, LEPSE, Montpellier, France

IWC4 2026 - SELECTED ORAL TALKS

PO497 - Rheological, Technological, and Nutritional Implications of High-Amylose Wheat in Breadmaking

Claudia Sardella ⁽¹⁾ - ***Kali Kotsiou*** ⁽²⁾ - ***Sestili Francesco*** ⁽³⁾ - ***Costas G. Biliaderis*** ⁽²⁾ - ***Athina Lazaridou*** ⁽²⁾ - ***Massimo Blandino*** ⁽¹⁾

⁽¹⁾ University of Turin, Department of Agricultural, Forest and Food Science, Grugliasco, Italy - ⁽²⁾ Aristotle University of Thessaloniki, Department of Food Science and Technology, School of Agriculture, Thessaloniki, Greece - ⁽³⁾ University of Tuscia, Department of Agriculture and Forestry Science, Viterbo, Italy