**AIII SIMPOSIO ESPAÑOL DE FISIOLOGÍA Y MEJORA DE CEREALES 17-18 de noviembre 2020**



PROGRAMA / PROGRAM

**MARTES 17 DE NOVIEMBRE / TUESDAY NOVEMBER 17TH**

**9:15-9:45.**

Bienvenida / Welcome.

**SESIÓN 1.**

**FISIOLOGÍA DE CULTIVOS EN UN CONTEXTO DE CAMBIO CLIMÁTICO.**

**Crop Physiology and Climate Change**

Moderadores: **Dr. Elena Prats y Dr. Sergio Menéndez.**

**9:45-10:15**

Ponencia invitada / Invited talk:

**Proff. Andres Fangmeier. Universidad de Hohenheim (Germany).**

**"CO2 enrichment and crops-looking back and forth"**

**10:15-10:30**

Preguntas / Questions

**10:30-11:00**

Descanso / Intermediate

**11:00-12:00**

Early ABA signalling together with physiological and architecture root changes contribute to successful coping with drought in oat (Dr Francisco J. Canales, IAS-CSIC, Córdoba, Spain).

Physiological and leaf metabolite traits in bread wheat and its relationship with productivity under water deficit (Dr. Miguel Garriga, Universidad de Concepción, Chillán, Chile).

What is the function of the main repressor of the vernalization pathway? Transcriptome analysis in near-isogenic lines of barley (Dr. Francesc Montardit, EEAD-CSIC, Zaragoza, Spain).

Interactive effect of relative humidity and elevated CO2 on C and N metabolism of two barley genotypes (Dr. Rubén Vicente, Universidade Nova Lisboa, Oeiras, Portugal).

**12:00-12:30**

Carrousel Presentaciones Flash Talk Presentations

High [CO2] and drought stress impact on metabolite content and remobilization of durum wheat flag leaf and ear during grain filling (Speaker: Ms. Sinda Ben Marien)

Effects of elevated ozone on the quality and grain isotopic signal of Mediterranean wheat (Speaker: Ms. Melissa Chang)

Physoligical and metabolics alterations in bread wheat (Triticum aestivum) and tritordeum under heat stress and elevated CO2 conditions (Speaker: Ms. Dorra Fakhet).

Are polyethylene portable chambers a trustable method to increase temperature in field experiments? (Speaker: Mr. Jinwook Kim).

Grain number and average grain weight response to heat waves in field grown contrasting wheat genotypes (Speaker: Mr. Jinwook Kim)

Optimization of an Enzyme activity assay platform to investigate variation in wheat grown under elevated CO2 and temperature at two nitrogen supplies (Speaker: Mr. Emilio L. Marcos-Barbero).

Do awns contribute to spike photosynthesis during grain filling in wheat? (Speaker: Dr. Ruth Sanchez Bragado).

Floret development in response to heat waves during the late reproductive phase in two wheats of contrasting grain number (Speaker: Mr. Breno Vicego).

The influence of photoperiod genes on yield and yield stability of durum wheat (Speaker: Dr. Dolors Villegas).

Environmental factors constraining durum wheat yield at three breeding stations of contrasting latitude (Speaker: Dr. Dolors Villegas).

**12:30-13:00**

Debate abierto sobre la Sesión / Open Discussion

**SESIÓN 2.**

**LA IMPORTANCIA DE LA MEJORA Y LOS RECURSOS GENÉTICOS.**

**Relevance of Breeding and Genetic Resources**

Moderadores: **Dr. Ernesto Igartua y Dr. Juanjo Irigoyen.**

**13:00-13:30**

Ponencia invitada / Invited talk

**Dr. Marta Da Silva Lópes, IRTA Lleida.**

**"Diversidad genética: una herramienta clave para la adaptación de los cultivos".**

**13:30-14:00**

Preguntas / Questions

**16:00-17:00**

Comunicaciones Orales / Oral Communications

Fine-tuning of vernalization in hybrid barleys (Ms. Miriam Fernández-Calleja, EEAD-CSIC, Zaragoza, Spain).

Allelic variation for prolamins and puroindolines in Spanish bread wheat landraces (Ms. Matilde López-Fernández, Universidad Politécnica de Madrid, Madrid, Spain).

Differential accumulation of bioactive compounds in four barley genotypes grown under normal and stress conditions (Ms. Mariona Martínez-Subirá, University of Lleida, Lleida, Spain).

Mediation of a GDSL esterase/lipase in carotenoid esterification in tritordeum suggests a common mechanism of carotenoid esterification in cereals (Dr. Requena Ramírez, IAS-CSIC, Córdoba, Spain). ​

**17:00-17:30**

Carrousel Presentaciones Flash Talk Presentations

Yield progress and genetic advance of bread wheat in Chile (Speaker: Dr. Abdelhalim K. Elazab).

Barley developmental traits affected by allelic combination of Hv-VRN1, Hv-VRN2 and PPD-H1 under high temperatures and vernalisation treatments (Speaker: Helga Ochagavía).

Do photoperiod-and vernalization-sensitivity genes affect spike fertility in barley? (Speaker: Mr. Jorge D. Parrado).

Identification of sources of resistance to *Zymoseptoria tritici* in Spanish durum wheat cultivars (Speaker: Mr. Rafael Porras).

Developmental phases as affected by Eps QTL-7D on contrasting Ppd-D1 backgrounds and Eps x temperature interaction (Speaker Mr. Priyanka, A. Basavaraddi).

The Mediterranean durum wheat pool: population structure among landraces and modern cultivars and identification of selective sweeps through GWAS (Speakers: Dr. José Miguel Soriano).

Genotypic variability and ear metabolism in field-grown durum wheat: identification of new traits for grain yield improvement (Speaker: Ms. Raquel Martínez Peña).

**17:30-18:00**

Debate abierto sobre la Sesión /Open Discussion

**MIERCOLES 18 DE NOVIEMBRE / WEDNESDAY NOVEMBER 18TH**

**SESIÓN 3.**

**CALIDAD DEL GRANO / Grain Quality**

Moderadores: **Dra. Roxana Savín y Dra Patricia Giraldo.**

**10:00-10:30**

Ponencia invitada/ Invited talk:

**Dra. M. Magdalena Ruiz Valcarcel.**

**"Las proteínas del gluten y la calidad en trigo duro".**

**10:30-10:45**

Preguntas/Questions

**10:45-11:35**

Comunicaciones Orales / Oral Communications:

Allelic variants for main glutenin-encoding loci in Spanish durum wheat landraces ( Mr. Efraín Chacón, Universidad Politécnica de Madrid, Madrid, Spain).

Effects of nitrogen availability on grain yield and mineral nutrient concentrations in wheat genotypes grown under elevated CO2 and high temperature (Mr. Emilio L. Marcos-Barbero, IRNASA-CSIC, Salamanca, Spain).

Effects of temperature and rainfall on grain yield and quality traits of bread wheat cultivated under rainfed conditions in Navarra: A multi-local study (Dr. Jon González-Torralba, Grupo AN, Tajonar, Spain).

Selection of bread wheat cultivars adapted to farmers and industry needs in southern Spain from Agrovegetal – CIMMYT collaboration (Dr. Ignacio Solís, Agrovegetal, Sevilla, Spain).

**11:35-12:05**

Discusión abierta sobre la Sesión / Open Discussion

**12:05-12:15**

Descanso /Intermediate

**12:15-12:45**

**Carrousel Presentaciones Flash Talk Presentations**

Durum wheat (Triticum turgidum ssp. durum) breeding program from Castile and Leon (Speaker: Dr.Yésica Pallavicini).

Genotypic Variability in wheat grain yield and quality under elevated atmospheric CO2 concentration and temperature (Speaker: Mr. Emilio L. Barbero).

Genetic variability for nutrient composition in durum wheat grains under different agronomic conditions (Speaker: Ms. Raquel Martínez-Peña).

Dynamics of zein proteins in maize and kernel hardness as affected by environmental conditions (Speaker: Dr. María Paula Laserna).

Dietary fiber content in wheat lines of contrasting yielding capacity and relationship with protein content (Speaker: Dr. María Paula Laserna).

**12:45-13:30**

Discusión abierta sobre la Sesión / Open Discussion

**SESIÓN 4.**

**FENOTIPEADO DE CULTIVOS Y DESARROLLO DE MODELOS.**

**Crop Phenotyping and Model Development**

Moderadores: **Jose Luis Araus y Alejandro del Pozo Lira.**

**15:00-15:30**

Ponencia Invitada: / Invited talk:

**Shawn Kefauver, Universitat de Barcelona.**

**"Tailor-made software to meet the challenges of phenotyping".**

**15:30-15:45**

Pregunta30s / Questions

**15:45-17:00**

Comunicaciones Orales / Oral Communications:

Shovelomics in barley at commercial stands (Alejandra Cabeza EEAD-CSIC).

RUST: a Robust User-friendly Script Tool for rapid assessment of rust disease (Mr. Luis M.Gallego, IAS-CSIC, Córdoba, Spain).

Assessing relationships between hyperspectral imagery and wheat parameters (Mr. Adrián Gracia-Romero, University of Barcelone, Barcelone, Spain).

Physiological phenotyping of winter wheat cultivars released in Chile between 1965 and 2017 (Dr. Ana María Méndez-Espinoza, Universidad de Talca, Talca, Chile).

Durum wheat ideotypes to Spanish environments differing in water and temperature conditions (Ms. Fatima Rezzouk, University of Barcelona, Spain).

Sentinel-2 detection of grain quality traits in wheat (Mr. Joel Segarra, University of Barcelona, Barcelone, Spain). ​

**17:00-17:30**

Debate abierto sobre la Sesión / Open Discussion

**17:30-18:00**

Conclusiones y despedida / Conclussions and Farewell

