

AACCI 2014 Annual Meeting Poster Categories, Titles and Authors

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Please Note:

Poster titles and authors are listed alphabetically by subject matter and scientific initiatives. Affiliations are listed as provided by the organizer/presenter.

Analytical Methods (Posters 1-14)

Scientific Initiatives: Quality & Analytical Methods

- 1-P Spectroscopic Methods for Aflatoxin Analysis in Maize: A Comparison of Raman, FT-NIR and FTIR Spectroscopies. K. LEE (1), T.J. Herrman (1), J. Davis (1), S. Murray (1), Y. Deng (1). (1) Texas A&M Univ, College Station, TX, U.S.A.
- 2-P Surface-Enhanced Raman Spectroscopy as a Rapid, Inexpensive, and Accurate Tool for Detection of Aflatoxins in Maize. K. LEE (1), T.J. Herrman (1), Y. Bisrat (1), S. Murray (1). (1) Texas A&M Univ, College Station, TX, U.S.A.
- 3-P An Example of NIR Calibration Development Limit : Alveographic Criteria on Common Wheat Flour. A. DUBAT (1), O. Le Brun (1), N. Boinot (1). (1) CHOPIN Technologies, Villeneuve la Garenne, France
- 4-P X-ray density scanning as a technique for the characterization of extruded food products. R.J. KOWALSKI (1), C.D. Morrow (2), A.G. McDonald (2), G.M. Ganjyal (1). (1) Washington State Univ, Pullman, WA, U.S.A.; (2) Univ. of Idaho, Moscow, ID, U.S.A.
- 5-P WITHDRAWN
- 6-P Improved allergen testing in raw & processed food products – Achieving better sensitivity, throughput, & reliability. A. Schreiber (1), L. Bailey (2), M. WOODCOCK (2). (1) AB SCIEX, Toronto, Canada; (2) AB SCIEX, Framingham, MA, U.S.A.
- 7-P Innovations for high-throughput, multi-mycotoxin quantitation in cereals & grains. O. Cabrices (1), A. Schreiber (2), L. Bailey (3), M. WOODCOCK (3). (1) Gerstel, Inc., Linthicum, MD, U.S.A.; (2) AB SCIEX, Toronto, Canada; (3) AB SCIEX, Framingham, MA, U.S.A.
- 8-P Evaluating the Kramer Shear cell and Ottawa cell for determining texture of cooked macaroni. Y. LIU (1), F.A. Manthey (1). (1) North Dakota State University, Fargo, ND, U.S.A.
- 9-P Evaluation of nuclear magnetic resonance spectroscopy for monitoring hydrolytic rancidity in intermediate wheatgrass (*Thinopyrum intermedium*) C. TYL (1), M. Bunzel (2), B. Ismail (1). (1) Univ.of Minnesota, Saint Paul, MN, U.S.A.; (2) Karlsruhe Institute of Technology, Karlsruhe Germany
- 10-P A comparative study of two testing methods for degree of gelatinization in pelleted animal feed. L. Zhu (1), L. Lewis (1), C. Jones (1), Y. Shi (1), S. ALAVI (1). (1) Kansas State University, Manhattan, KS, U.S.A.
- 11-P Comparing Various Methods of Quantifying Reducing sugars and improving the measurement. Y. Shao (1), (. LIN (1). (1) Purdue University, West Lafayette, IN, U.S.A.
- 12-P Determining pentosan content of whole wheat and flour by the phloroglucinol colorimetric assay and GLC of alditol acetates of arabinose and xylose. Y. WU (1), A. Rogiewicz (1), H.D. Sapirstein (1), B.A. Slominski (1). (1) Univ.of Manitoba, Winnipeg, MB, Canada
- 13-P The Molecular BioMarkers for Grain Technical Committee. R.D. SHILLITO (1). (1) Bayer CropScience LP, Morrisville, NC, U.S.A.
- 14-P A stable isotope dilution LC-MS/MS method for the quantification of ferulic acid and its microbial metabolites. A. Hildebrand (1), M. Waterstraat (1), D. Brockmann (2), D.D. Gallaher (2), A.Y. Arikawa (2), M. BUNZEL (1). (1) Karlsruhe Institute of Technology, Karlsruhe,Germany; (2) University of Minnesota, St. Paul, MN, U.S.A.

Cake, Cookies & Donuts (Posters 15-22)

Scientific Initiatives: Ingredients & Innovations

- 15-P Amylase and phospholipase combination improves cake desirable attributes. D.L. AUSTIN (1). (1) Novozymes, Wake Forest, NC, U.S.A.
- 16-P Impact of sugar and egg proteins on the physico-chemical properties of cake batters. N. HESSO (1), P. Le-Bail (2), C. Loisel (1), S. Chevallier (1), A. Marti (3), A. Le-Bail (1), K. Seetharaman (3). (1) ONIRIS - UMR CNRS GEPEA 6144, Nantes, LA, France; (2) INRA, Nantes, LA, France; (3) Univ.of Minnesota, Saint Paul, LA, U.S.A.
- 17-P WITHDRAWN
- 18-P The development of a clean label high ratio cake concentrate. T. PENNY (1). (1) Horizon Milling, Burlington, ON, Canada
- 19-P Comparison of two AACC methods for sugar-snap cookies and influence of altitude on cookie diameter. C. JIANG (1), C. Jiang (2), C. Butti (3), N. Milanowski (2), J. Battistone (3), M. Javener (2), S. Phillips (3). (1) Cargill Horizon Milling, Minnetonka, MN, U.S.A.; (2) Cargill Horizon Milling, Minnetonka, MN, U.S.A. (3) Syngenta, Berthoud, CO, U.S.A.
- 20-P Application of whole Japanese sweet chestnut (*C. crenata*) flour in cookies. A.C. Monteiro (1), A.K. Costa (1), F.M. Guedes (1), G.G. Baptista (1), M. Vettorato (1), R. Shinzato (1), R.C. dos Reis (1), A.V. Moreira (1), G.A. SEHN (1), C.J. Steel (1). (1) State University of Campinas, Campinas, Brazil
- 21-P Improvement of Volume and Appearance of High Ratio Cake Baked from Non-chlorinated Soft Wheat Flour. B. BAIK (1), T. Donelson (1). (1) Soft Wheat Quality Laboratory, USDA ARS-Corn, Soybean & Wheat Quality Research Unit, Wooster, OH, U.S.A.
- 22-P Texture profile analysis in wheat flour dough and donuts with added flour peel *Oxalis tuberosa*. N. GUEMES-VERA (1), E. Santos Ribera (1), S. Espino Manzano (1), J. Piloni Martini (1), J. Hernandez Uribe (1). (1) Univ.Autonoma del Estado de Hidalgo, Tulancingo, Mexico

Conversations: Whole Grain (Poster 23)

Scientific Initiatives: Health & Nutrition

- 23-P Preference mapping of commercial whole wheat breads. A.J. BERNSTEIN (1), D.J. Rose (1). (1) University of Nebraska-Lincoln, Lincoln, NE, U.S.A.

Corn & Tortillas (Posters 24-31)

Scientific Initiatives: Engineering & Processing

- 24-P Corn tortilla elaborated with an ecological nixtamalization: proximal composition and starch digestibility. L.A. BELLO-PEREZ (1), P.C. Flores-Silva (2), J.D. Figueroa-Cardenas (3). (1) CEPROBI-IPN, Yautepec, Morelos, Mexico; (2) Instituto Politecnicoo Nacional, Yautepec, Morelos, Mexico; (3) CINVESTAV, Queretaro, Mexico
- 25-P Production of nixtamalized corn flour and tortillas fortified with bean (*Phaseolus vulgaris*) seed coat extract. A. Salinas Valdes (1), J.R. SORDO ALFARO (1), A. Lavin Diaz de Leon (1), R.A. Chavez-Santoscoy (1), E. Perez Carrillo (2). (1) ITESM, Monterrey, Mexico; (2) Tec de Monterrey, Monterrey, Mexico
- 26-P Effect of microwave treatment and moisture content on physicochemical properties of corn flour. L. Roman (1), M.M. Martinez (1), C.M. Rosell (2), M. GOMEZ (1). (1) Valladolid University, Palencia, Spain; (2) Institute of Agrochemistry and Food Technology (IATA-CSIC), Paterna (Valencia), Spain
- 27-P Characterising maize hardness using rapid visco analyser (RVA) viscograms and locally weighted partial least squares (LW-PLS) regression models. A. GUELPA (1), M. Bevilacqua (2), F. Marini (2), K. O'Kennedy (3), P. Geladi (4). (1) Stellenbosch University, Stellenbosch, South Africa; (2) University of Rome, Rome, Italy; (3) Sasko Strategic Services, Division of Pioneer Foods (Pty.), Paarl, South Africa; (4) Institute of Forest Biomaterials and Technology, Swedish University of Agricultural Sciences, Umea, Sweden
- 28-P Partial characterization of physicochemical and functional properties of starches of Mexican blue maize obtained by wet-milling. M. URIARTE-ACEVES (1), P. Sanchez-Pena (1), C. Reyes-Moreno (1), J. Milan-Carrillo (1). (1) Universidad Autonoma de Sinaloa, Culiacan, Mexico
- 29-P Effect of processing on the fatty acid profiles and antioxidant capacity of pigmented creole maize races for production of tortillas. A. MILAN-NORIS (1), S.A. Rodriguez-Espitia (2), I. Contreras-Andrade (1) C. Reyes-Moreno (1) J. Milan-Carrillo (1) E.O. Cuevas-Rodriguez (1). (1) Programa Regional de Posgrado en Biotecnologia, Universidad Autonoma de Sinaloa, Culiacan, Mexico; (2) Maestria en Ciencia y Tecnologia en Alimentos, Universidad Autonoma de Sinaloa, Culiacan, Mexico
- 30-P The effect of temperature induced stress cracks on the process quality of yellow dent corn. D. SCHEFF (1), J. Frederick (1), C. VanBibber (1), A. Bingham (1), H. Dogan (1), K. Ambrose (1). (1) Kansas State Univ, Manhattan, KS, U.S.A.
- 31-P Development of a laboratory scale corn flaking procedure to simulate commercial processing conditions and to characterize flake product . G. KANDHOLA (1), N.J. Engeseth (2), M. Bohn (2), K.D. Rausch (2). (1) Univ.of Illinois At Urbana Champaign, Champaign, IL, U.S.A.; (2) Univ.of Illinois at Urbana Champaign, Champaign, IL, U.S.A.
- 32-P Antioxidant capacity of tortilla elaborated from extruded and nixtamalized Mexican pigmented maize flour. A. CORRALES-BANUELOS (1), D. Angulo-Serrano (1), E. Osuna-Gallardo (1), C. Reyes-Moreno (1), E. Cuevas-Rodriguez (1), R. Gutierrez-Dorado (1), J. Milan-Carrillo (1), S. Mora-Rochin (1). (1) Universidad Autonoma de Sinaloa, Culiacan Sinaloa, AB, Mexico

Dietary Fiber (Posters 33-45)

Scientific Initiatives: Quality & Analytical Methods

- 33-P Polysaccharide composition of triticale (*Triticosecale*) produced over three years in the Great Plains of the USA. J. YANG (1), D. Rose (2), P. Baenziger (2). (1) Univ.of Nebraska, Lincoln, NE, U.S.A.; (2) Univ.of Nebraska, Lincoln, NE, U.S.A.
- 34-P Evaluation of functionality of internal pea fiber in high moisture food systems. C. PERERA (1). (1) Roquette America Inc, Geneva, IL, U.S.A.
- 35-P Thermo-mechanical extrusion and sodium hydroxide pretreatments for ethanol production from destarched corn fiber. G. RYU (1), L. Myat (2). (1) Kongju Natl Univ, Choongnam South Korea; (2) Kongju National Univ, Yesan South Korea
- 36-P The energy value of a common source of dietary fiber, resistant maltodextrin. D.T. GORDON (1). (1) PIC&PC, Cathlamet, WA, U.S.A.
- 37-P Production, Separation and Functional Tests of Xylooligosaccharides from *Miscanthus x giganteus* in the Cellulosic Ethanol Process. M. CHEN (1), M.J. Bowman (2), B.S. Dien (2), M.A. Cotta (2), L.B. Iten (2), K.D. Rausch (3), M.E. Tumbleson (1), T.R. Whitehead (2), V. Singh (1). (1) University of Illinois at Urbana-Champaign, Urbana, IL, U.S.A.; (2) NCAUR-USDA, Peoria, IL, U.S.A.; (3) University of Illinois at Urbana-Champaign, Urbana, IL, U.S.A.
- 38-P Extraction and characterisation of wheat arabinoxyloligosaccharides from animal feed co-products of bioethanol production. R. Bell (1), D. Sushil (1), N. Cukelj (1), G. CAMPBELL (1). (1) Univ.of Manchester, Manchester United Kingdom
- 39-P Evaluating the effect of barley Beta-glucan on mechanical properties of white salted and yellow alkaline noodles using ultrasound. A. SALIMI KHORSHIDI (1), A. Strybulevych (1), D. Daugelaite (2), M.G. Scanlon (1), J.H. Page (1), D.W. Hatcher (3). (1) Univ.of Manitoba, Winnipeg, MB, Canada; (2) Univ.of Manitoba, Winnipeg, MB, Canada; (3) Canadian Grain Commission, Winnipeg, MB, Canada
- 40-P Correlations between the substitution of wheat flour by fine wheat bran, dough rheological parameters and loaf specific volume. G.A. Sehn (1), N.S. Sasaki (1), P.F. Salek (1), C.J. STEEL (1). (1) University of Campinas (UNICAMP), Campinas, SP, Brazil
- 41-P Exploring the relationship between corn arabinoxylan structure and gut bacterial growth behavior. X. NIE (1), E. Martens (2), B. Hamaker (1). (1) Purdue University, West Lafayette, IN, U.S.A.; (2) University of Michigan, Medical School, Ann arbor, MI, U.S.A.
- 42-P Function and mechanism of action of soluble & insoluble fibers in dough systems. Y. ZHAO (1). (1) Kansas State Univ, Manhattan, KS, U.S.A.
- 43-P Sensory acceptability and satiety of a heart-healthy β -glucan-added spaghetti-type pasta J.P. Vivanco (1), X. LOPEZ (2), C. Barraza (1), J.M. Munoz (3), M. Alvina (4). (1) Consorcio de Cereales Funcionales S.A. - Universidad de Chile, Facultad de Ciencias Químicas y Farmaceuticas, Departamento de Ciencia de los Alimentos y Tecnología Química, Santiago de Chile Chile; (2) Consorcio de Cereales Funcionales S.A. - Granotec Chile S.A., Santiago de Chile Chile; (3) Empresas Carozzi S.A., Santiago de Chile Chile; (4) Universidad de Valparaiso, Facultad de Farmacia, Departamento de Nutrición y Alimentos, Valparaiso Chile

- 44-P Characterization of feruloylated arabinoxylans from the perennial grain species intermediate wheat grass (*Thinopyrum intermedium*). R.R. Kylo (1), A. Becker (1), M. BUNZEL (1). (1) Karlsruhe Institute of Technology, Karlsruhe, Germany
- 45-P The importance of dietary fiber derived from added fiber, a case study with Resistant Maltodextrin.. A. BUCK (1). (1) Archer Daniels Midland Co, Decatur, IL, U.S.A.

Germination (Posters 46-50)

Scientific Initiatives: Quality & Analytical Methods

- 46-P Germination loss of silo stored barley is a result of membrane integrity disruption and partially, low ascorbate peroxidase activity. J. MOLOI (1), M.T. Labuschagne (2). (1) Univ.of the Free State, Bloemfontein South Africa; (2) University of the Free State, Bloemfontein South Africa
- 47-P WITHDRAWN
- 48-P Effect of Processing Conditions during the Partial Germination of Whole Yellow Peas on the Quality of Spaghetti and Extruded Snacks. P. FROHLICH (1), G. Boux (1), L. Malcolmson (1). (1) Canadian International Grains Institute, Winnipeg, MB, Canada
- 49-P Optimization of the germination bioprocess of amaranth seeds to increase the antioxidant activity, total phenolic and flavonoid contents. J.X. PERALES SÁNCHEZ (1), R. Gutierrez Dorado (2), C. Reyes Moreno (2), M.A. Gomez Favela (2), J. Milan Carrillo (2), A. Valdez Ortiz (2), E. Cuevas Rodriguez (2). (1) Universidad Autonoma de Sinaloa, Culiacan, Sinaloa Mexico; (2) Universidad Autonoma de Sinaloa, Culiacan, Sinaloa Mexico
- 50-P Physical, Physicochemical and Functional Characterization of Desi Chickpea (*Cicer arietinum* L.) Cultivars During Germination. M. HEIRAS PALAZUELOS (1), D. Ruelas Zavala (2), C. Reyes Moreno (2), J. Garzán Tiznado (2). (1) Universidad Autonoma de Sinaloa, Culiacan, Sinaloa Mexico; (2) Universidad Autónoma de Sinaloa, Culiacán, Sinaloa Mexico

Ingredients (Posters 51-64)

Scientific Initiatives: Ingredients & Innovations

- 51-P Improvement of dietary fiber, ferulic acid and calcium contents in pan bread enriched with nejayote solids from white maize (*Zea mays*). B.A. ACOSTA-ESTRADA (1), M.A. Lazo-Valez (1), Y. Nava-Valdez (1), J.A. Gutierrez-Urbe (1), S.O. Serna-Saldavar (1). (1) Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Monterrey Mexico
- 52-P WITHDRAWN
- 53-P Sensory effects of replacing sodium chloride with a mineral salt high in magnesium in white bread. H. MITCHELL (1), D. Rolf (1). (1) Smart Salt Inc, Arnold, CA, U.S.A.
- 54-P Microbial effects of replacing sodium chloride with a mineral salt high in magnesium in white bread. H. MITCHELL (1), D. Rolf (1). (1) Smart Salt Inc, Arnold, CA, U.S.A.
- 55-P Chinese steamed bread from quinoa-wheat composite flour. S. WANG (1), A. Opassathavorn (2), F. Zhu (2). (1) Niagara College, Niagara-on-the-lake, ON, Canada; (2) University of Auckland, Auckland New Zealand

- 56-P Fat Reduction in Hot Press Whole Wheat Flour Tortilla With Inuline and Oatmeal. I. PALOMERA SANTANDREU (1), S. Payan Tamez (1), A. Martinez Martinez (1), E. Heredia-Olea (1), S. Guajardo-Flores (1), E. Perez-Carrillo (1). (1) ITESM, Monterrey Mexico
- 57-P Effect of xanthan gum on improvement of the bread height and volume on baking with frozen and thawed dough. M. SEGUCHI (1), A. Tabara (1), N. Morimoto (1). (1) Kobe Women's University, Kobe Japan
- 58-P WITHDRAWN
- 59-P Evaluation of the effects of hydrocolloids on frozen dough properties during proofing with the Rheo F4. G. VERICEL (1). (1) CHOPIN Technologies, Villeneuve la Garenne, NY, France
- 60-P Using almonds as ingredients: predicting lipid release from particle size. T. GRASSBY (1), M. Grundy (1), P. Ellis (1). (1) King's College London, London United Kingdom
- 61-P Functional properties of raw and extruded gluten free flours. G. KAUR CHANDI (1), S. G Rudra (2), A. Mahendru (3), J. Nishad (3), N. Jakhar (3), C. Kaur (2). (1) Brabender GmbH & Co. KG Kulturstr. 51-55 47055 Duisburg, Germany, Brampton, ON, Canada; (2) Indian Agricultural Research Institute, New Delhi India; (3) Indian Agriculture Research Institute, New Delhi India
- 62-P Gel from ground chia (*Salvia hispanica* L.) as hydrocolloid for wheat bread production. V. Zettel (1) A. Kramer (1), F. Hecker (1), B. HITZMANN (1). (1) University of Hohenheim, Stuttgart Germany
- 63-P Physico-chemical and functional properties of the main nutrients of flax seeds. V. MARKINA (1), M. Kireeva (2). (1) St Petersburg Univ, St-Petersburg Russia; (2) St Petersburg University St-Petersburg Russia
- 64-P The Wheat Aleurone Ingredient in Breakfast Cereals W. VON REDING (1). (1) Buhler AG, Oberaegeri, ZG Switzerland

Legumes (Posters 65-74)

Scientific Initiatives: Ingredients & Innovations

- 65-P Development and Quality Evaluation of Navy Bean Flour Steamed Bread. D. AN (1), E. Assefaw (1), B. Fu (2). (1) Canadian International Grains Institute, Winnipeg, MB, Canada; (2) Canadian Grain Commission, Winnipeg, MB, Canada
- 66-P Development of a partial germination process for yellow peas and resultant pea flours in white layer cakes. J. HAN (1), A. Buchko (1). (1) Government of Alberta, Leduc, AB, Canada
- 67-P Characterization of protein content, starch morphology and compositions in field peas. J. LU (1). (1) Agriculture and Agri-Food Canada, Lethbridge, AB, Canada
- 68-P Molecular and sensory approaches to the characterization of soybean-enriched rice-based snacks. J. MANFUL (1), H.F. Akoto (2), P.T. Johnson (3), E. Sakyi-Dawson (4), M. Marengo (5), L. Azzini (5), F. Bonomi (5), S. Buratti (5), S. Benedetti (5), M. Zanoletti (5), M.A. Pagani (5), A. Barbiroli (5), S. Iametti (5). (1) Africa Rice Center, Cotonou Benin; (2) Department of Nutrition and Food Science, University of Ghana., Accra Ghana; (3) CSIR- Head Office, Accra Ghana; (4) Department of Nutrition and Food Science, University of Ghana, Accra Ghana; (5) DeFENS, University of Milan, Milan Italy

- 69-P Germinated wheat and pulse flours and their baking applications J. HU (1), K. Richter (1), G. Nelson (1), W. Quan-hum (2), E. Uriyo (3). (1) Cargill - Horizon Milling, Minnetonka, MN, U.S.A.; (2) Cargill - Horizon Milling, Burlington, ON, Canada; (3) Cargill - Horizon Milling, Wayzata, MN, U.S.A.
- 70-P Physicochemical properties of starch from selected Canadian grown lentils. Q. LIU (1), Z. Lu (2), K. Humphries (2), E. Donner (2), D. Ramdath (2). (1) Agric & Agri-Food Canada, Guelph, ON, Canada; (2) Agriculture and Agri-Food Canada, Guelph, ON, Canada
- 71-P Development of gluten-free breads enriched with chickpea and acorn flours using response surface methodology. I. Gkountenoudi-Eskitzi (1), A. LAZARIDOU (1), A.M. Goula (1), C.G. Biliaderis (1). (1) Department of Food Science and Technology, School of Agriculture, Aristotle University of Thessaloniki, P.O. Box 235, Thessaloniki, 541 24, Greece, Thessaloniki Greece
- 72-P Effects of particle size reduction by air-jet milling on the properties of Phaseolus Vulgaris L. var. Pinto bean flour. F. SUMARGO (1), W.S. Ratnayake (1), S.A. Weier (1). (1) University of Nebraska-Lincoln, Lincoln, NE, U.S.A.
- 73-P Wheat-pea composite flour quality and its effect on bread quality. L.D. DAVIES-HOES (1), M.G. Scanlon (1), D.L. Niziol (2). (1) Univ.of Manitoba, Winnipeg, MB, Canada; (2) Agriculture and Agri-Food Canada, Winnipeg, MB, Canada
- 74-P Effect of Germination Time on Proximate Composition of Desi Chickpea (Cicer arietinum L.) Cultivars Grown in Northwest of México. M. HEIRAS PALAZUELOS (1), D. Ruelas Zavala (2), C. Reyes Moreno (2), J. Garzan Tiznado (2). (1) Universidad Autonoma de Sinaloa, Culiacan, Sinaloa Mexico; (2) Universidad Autonoma de Sinaloa, Culiacan, Sinaloa Mexico

Milling & Baking (Posters 75-89)

Scientific Initiatives: Quality & Analytical Methods

- 75-P Effect of water diffusion into wheat kernels during tempering on the hardness of wheat kernels. Y. Harima (1), N. Tsuge (2), A. Horigane (3), M. Yoshida (4), K. NAKAMURA (5). (1) Nisshin Flour Milling Inc., Tyuou-ku Tokyo Japan; (2) Nisshin Flour Milling Inc., Tsukuba-city,Ibaraki Japan; (3) National Food Research Institute, Tsukuba-city Ibaraki Japan; (4) Nippon Veterinary and Life Science University, Musashino-city,Tokyo Japan; (5) Nisshin Flour Milling Inc. Tsukuba-city Ibaraki Japan
- 76-P Test Baking: What Does Loaf Volume Tell Us?. B. DUPUIS (1), B. Fu (1). (1) Canadian Grain Commission, Winnipeg, MB, Canada
- 77-P Cold plasma: a novel technology for flour treatment. N. Bahrami (1), G.A. Chope (2), S.P. PENSON (2), I.D. Fisk (1). (1) University of Nottingham, Sutton Bonington United Kingdom; (2) Campden BRI, Chipping Campden United Kingdom
- 78-P A Systematic Study of Breadmaking Settings for Obtaining Small Scale Bread. C. ROSELL (1). (1) IATA - CSIC, Paterna, Valencia Spain
- 79-P Dark, Hard and Vitreous Kernel Content Effect on Flour and Baking Quality of Hard Red Spring Wheat. T. BAASANDORJ (1), J. Ohm (2), S. Simsek (3). (1) NDSU, Fargo, ND, U.S.A.; (2) USDA-ARS, Fargo, ND, U.S.A.; (3) North Dakota State University, Fargo, ND, U.S.A.

- 80-P Impact Of Waiting Time Between End Of Baking And Depaning On Depaning Of Sliced Bread. "Satin" Project (2012-2015). A. LE-BAIL (1), A. RZIGUE (2), K. MARMI (3), E. PURLIS (4), V. JURY (3), j. MONTEAU (3), j. GRUA (3), C. PROST (3). (1) GEPEA - CNRS, Nantes France; (2) ONIRIS - UMR GEPEA-CNRS 6144, Nantes France; (3) ONIRIS - UMR GEPEA - CNRS 6144, Nantes France; (4) CIDCA - CONICET La Plata - Universidad Nacional de La Plata " Argentina, La Plata Argentina
- 81-P Effect of postharvest conditions on grain quality. D. RAMCHANDRAN (1), K.D. Rausch (1), M.E. Tumbleson (1), V. Singh (1). (1) University of Illinois, Urbana-Champaign, IL, U.S.A.
- 82-P The suggested mechanism of First Break milling on debranned wheat described with the Double Normalised Kumaraswamy Breakage Function. S. Galindez-Najera (1), G. CAMPBELL (1). (1) Univ.of Manchester, Manchester United Kingdom
- 83-P Characterization of bread samples enriched with fish flour (Cobia, *Rachycentrumcanadum*). G. Fagundes (1), M. Salas-Mellado (2), L. Azzini (3), M. Marengo (3), M. Zanoletti (3), S. Iametti (3), M. PAGANI (3). (1) Food Technology Laboratory (LTA), Universidade Federal do Rio Grande, Rio Grande DR Brazil; (2) Food Technology Laboratory (LTA), Universidade Federal do Rio Grande, Rio Grande DS Brazil; (3) DeFENS, University of Milan, Milan Italy
- 84-P Milling moisture treated black beans (*Phaseolus vulgaris* L.) using a burr mill/roller mill milling system. H. ANDO (1), C.E. Carter (1), F.A. Manthey (1). (1) North Dakota State University, Fargo, ND, U.S.A.
- 85-P Adaptation of conventional wheat flour milling system to refine sorghum, corn and cowpea grains. M. Joseph (1), L. Zhu (1), A. Adedeji (2), J. Gwirtz (3), S. ALAVI (1). (1) Kansas State University, Manhattan, KS, U.S.A.; (2) McGill University, Montreal Canada; (3) JAG Services, Inc., Manhattan, KS, U.S.A.
- 86-P Influence of Storage Time of Wheat Flour and Grain on Reliability of End-Use Quality Evaluation. B. BAIK (1), T. Donelson (1), T. Ji (1). (1) Soft Wheat Quality Laboratory, USDA ARS Corn, Soybean & Wheat Quality Research Unit, Wooster, OH, U.S.A.
- 87-P Impact and mitigations of high altitude on wheat/flour quality analysis. C. KUZNIK (1), C. Butti (2), J. Battistone (2), M. Hughes (1), D. Fehrenbach (1), B. Fishburn (2), D. French (2). (1) Cargill/Horizon Milling, LLC, Minnetonka, MN, U.S.A.; (2) Syngenta Wheat Quality Lab, Berthoud, CO, U.S.A.
- 88-P True cost of increased mill extraction yield with a low stability wheat crop. N. MILANOWSKI (1), K. Pfrang (1), M. Anderson (1), E. McDaniel (2), S. Hafemeyer (1). (1) Cargill Horizon Milling, Wayzata, MN, U.S.A.; (2) Cargill Horizon Milling, Chattanooga, TN, U.S.A.
- 89-P Evaluation of a Vacuum Dough Expansion System for Estimation of Dough Expansion Volume. P. KRISHNAN (1). (1) South Dakota State Univ, Brookings, SD, U.S.A.

Pasta & Noodles (Posters 90-95)

Scientific Initiatives: Quality & Analytical Methods

- 90-P Characteristics of gluten-free pasta prepared from different lentil varieties by high temperature extrusion. N. WANG (1), L. Maximiuk (1), J. Santos (1). (1) Canadian Grain Commission, Winnipeg, MB, Canada
- 91-P Dough hydration level alters physical and cooking properties of non-traditional spaghetti. E. DE LA PENA (1), F.A. Manthey (1). (1) North Dakota State University, Fargo, ND, U.S.A.
- 92-P Study on the Dry Processing Parameters and Its Model for Chinese Dried Noodle. Y. WEI (1), J. Wang (1), Y. Zhang (1), B. Zhang (1), J. Wang (2). (1) Inst of Agro-Products Processing Sci & Tech, CAAS, Beijing China; (2) Institute of Agro-Products Processing Sci-Tech, CAAS, Haidian district, Beijing China
- 93-P Performance of industrial dough mixers and effects on noodle quality. R. Liu (1), Y. WEI (2), Y. Zhang (1), B. Zhang (1). (1) Inst of Agro-Products Processing Sci & Tech, CAAS, Beijing China; (2) Inst of Agro-Products Processing Sci & Tech, CAAS, Beijing China
- 94-P Changes in semolina yellow pigment content and carotenoid composition during pasta processing. C. CHIREMBA (1), S. Nam (1), L. Schlichting (1), C. Pozniak (2), B. Fu (1). (1) Canadian Grain Commission, Winnipeg, MB, Canada; (2) University of Saskatchewan, Saskatoon, SK, Canada
- 95-P Characteristics of cassava fortified instant noodles. I.O. ONIGBOGI (1), Moshood Abiola (2) (1) Poltechnic, Abeokuta, Ogun State, OR, Nigeria; (2) Moshood Abiola Polytechnic, Abeokuta, OR, Nigeria

Phenolics, Antioxidants & Health (Posters 96-107)

Scientific Initiatives: Health & Nutrition

- 96-P Concentrations of phenolic compounds in grain sorghum and their relevance to performance of broiler chickens offered sorghum-casein diets. A. KHODDAMI (1), H.H. Truong (2), S.Y. Liu (2), T.H. Roberts (3), P.H. Selle (2). (1) Faculty of Agriculture and Environment, University of Sydney, Sydney Australia; (2) Poultry Research Foundation, The University of Sydney, Sydney Australia; (3) Department of Plant and Food Science, Faculty of Agriculture and Environment, University of Sydney, Sydney Australia
- 97-P Detailed Identification of Anthocyanin Pigments in Purple Wheat Bran and Powder Isolates. E. ABDEL-AAL (1), P. Hucl (2), I. Rabalski (1). (1) Agriculture and Agri-Food Canada, Guelph, ON, Canada; (2) University of Saskatchewan, Saskatoon, SK, Canada
- 98-P Effects of the interaction of sorghum proanthocyanidins with ungelatinized corn starch on starch digestibility. D.B. AMOAKO (1), J.M. Awika (1). (1) Texas A&M University, College Station, TX, U.S.A.
- 99-P Relationship between degree of sprouting and total phenolic compounds of eight soft wheat varieties with diverse milling properties grown in Michigan. J. SUN (1), Y. Ai (1), B. Karakkat (1), E. Olson (1), P.K. Ng (1). (1) Michigan State Univ, East Lansing, MI, U.S.A.
- 100-P Effects of Germination on Phenolic Acid Contents and Related Enzyme Activities in Brown Rice. D. CHO (1), S. Lim (1). (1) Korea University, Seoul South Korea
- 101-P WITHDRAWN

- 102-P Iron and zinc concentration in white flour of bread wheat cultivars grown in the three production regions of South Africa. M.T. LABUSCHAGNE (1), A. van Biljon (2). (1) Univ.of the Free State, Bloemfontein South Africa; (2) University of the Free State, Bloemfontein South Africa
- 103-P WITHDRAWN
- 104-P Inhibition of nitric oxide production in lipopolysaccharide-activated RAW 264.7 macrophages by tortillas elaborated through extrusion. J. AGUAYO (1), S. Mora-Rochin (2), E. Cuevas-Rodriguez (2), H. Lopez-Moreno (2), C. Reyes-Moreno (2), J. Milan-Carrillo (2). (1) Univ.de Sinaloa, Culiacan, AB, Mexico; (2) Universidad Autonoma de Sinaloa, Culiacan Sinaloa, AB, Mexico
- 105-P WITHDRAWN
- 106-P Tocopherols, phenolic content, antioxidant activity of raw and sprouted quinoa and amaranth. G. BALAKRISHNAN (1), R. Goodrich Schneider (1). (1) University of Florida, Gainesville, FL, U.S.A.
- 107-P Inactivation of condensed tannins in sorghum flour by alkali treatment. A.I. Adetunji (1), J.R. Taylor (1). (1) University of Pretoria, Pretoria South Africa

Protein & Gluten (Posters 108-120)

Scientific Initiatives: Chemistry & Interactions

- 108-P Gluten structural evolution during pasta processing in refined and whole grain pasta: the influence of mixing, drying, and cooking. J.E. BOCK (1), R. West (1), S. Iametti (2), F. Bonomi (2), M. Marengo (2), K. Seetharaman (3). (1) University of Guelph, Guelph, ON, Canada; (2) Universita Degli Studi di Milano, Milan Italy; (3) University of Minnesota, St. Paul, MN, U.S.A.
- 109-P WITHDRAWN
- 110-P Direct comparison of protein extractability of wheat flour, bran and whole wheat by aqueous solutions with varying pH. K. LIU (1). (1) USDA ARS, Aberdeen, ID, U.S.A.
- 111-P Cereal protein based biomaterials for food applications. L. CHEN (1), Z. Tian (2). (1) Univ.of Alberta, Edmonton, AB, Canada; (2) University of Alberta, Edmonton, AB, Canada
- 112-P Protein content, amino acid profiles and mineral constituents of aleurone and endosperm botanical fractions of yellow corn, purple barley and wheat. V.U. NDOLO (1), T. Beta (1). (1) University of Manitoba, Winnipeg, MB, Canada
- 113-P Optimization of the aqueous-alcohol washing process for production of protein concentrates from air-classified field pea and other pulses. R. PETER (1), V. Meda (1), R.T. Tyler (1). (1) University of Saskatchewan, Saskatoon, SK, Canada
- 114-P Molecular properties of wheat lines containing combinations of three HMW-GS transgenes. T. Aussenac (1), L. RHAZI (2), F. BARRO (3). (1) Inst Polytechnique LaSalle Beauvais, Beauvais France; (2) LaSalle Beauvais, Beauvais France; (3) Instituto de Agricultura Sostenible, Cordoba Spain
- 115-P Effects of ozone pretreatment on the molecular properties of wheat grain proteins. T. Aussenac (1), L. RHAZI (2), P. GOSE (2). (1) Inst Polytechnique LaSalle Beauvais, Beauvais France; (2) LaSalle Beauvais, Beauvais France

- 116-P Correlations between vital wheat gluten protein fractions, gluten index and specific volume obtained from a gluten expansion test. F. ORTOLAN (1), K. Urbano (1), F.M. Netto (1), C.J. Steel (1). (1) State University of Campinas, Campinas Brazil
- 117-P Atomistic modeling of maize α -zein peptides and their propensities for aggregation and β -sheet structuring. D.P. ERICKSON (1), E. Hamed (2), S. Keten (2), O.H. Campanella (1), B.R. Hamaker (1). (1) Purdue Univ, West Lafayette, IN, U.S.A.; (2) Northwestern University, Evanston, IL, U.S.A.
- 118-P Protein-protein interactions and amino acid composition of meat analogue obtained at high and low moisture extrusion. M. Schmiele (1), M.D. Gurgueira (1), M.S. Clerici (1), Y.K. CHANG (1). (1) University of Campinas, Campinas Brazil
- 119-P Effect of mixing temperature on protein secondary structure and thiols in soft and hard wheat flour dough. E.T. QUAYSON (1), K. Seetharaman (1), A. Marti (2). (1) University of Minnesota, St. Paul, MN, U.S.A.; (2) University of Minnesota, St. Paul, MN, U.S.A.
- 120-P Changes in protein conformation and sulphhydryl content in soft and hard wheat flours during mixing. E.T. QUAYSON (1), K. Seetharaman (1), A. Marti (2). (1) University of Minnesota, St. Paul, MN, U.S.A.; (2) University of Minnesota, Saint Paul, MN, U.S.A.

Rheology (Posters 121-137)

Scientific Initiatives: Quality & Analytical Methods

- 121-P Evaluation of Texture Differences among Varieties of Cooked Quinoa. G. WU (1), C.F. Morris (2), K.M. Murphy (1). (1) Washington State University, Pullman, WA, U.S.A.; (2) USDA-ARS Western Wheat Quality Lab, Pullman, WA, U.S.A.
- 122-P Physicochemical properties of hard red spring wheat flour/hydrocolloid blends measured with micro-viscoamylograph. K. WHITNEY (1), S. Simsek (1). (1) North Dakota State Univ, Fargo, ND, U.S.A.
- 123-P Thermal, pasting and gel textural properties of nine types of starches. S. Li (1), Y. Zhang (1), Y. WEI (2), W. Zhang (1), B. Zhang (1). (1) Inst of Agro-Products Processing Sci & Tech, CAAS, Beijing China; (2) Inst of Agro-Products Processing Sci & Tech, CAAS, Beijing China
- 124-P Prediction of Noodles and Steam Bread Score With the Mixolab. A. DUBAT (1), H. Sun (2), H. Yu (3), O. Le Brun (1), J. Latchoumia (1), N. Boinot (1). (1) CHOPIN Technologies, Villeneuve la Garenne France; (2) Academy of State Administration of Grain, Beijing China; (3) Chopin (Beijing) Trading Company Ltd., Beijing China
- 125-P Assessment of white and whole wheat flour quality using the micro-viscoamylograph. K. WHITNEY (1), D. Olsen (1), S. Simsek (2). (1) North Dakota State Univ, Fargo, ND, U.S.A.; (2) North Dakota State University, Fargo, ND, U.S.A.
- 126-P Physical and molecular characterization of starches from *Oryza glaberrima* accessions. J.K. GAYIN (1), J. Manful (2), E. Bertoft (3), K. Seetharaman (4). (1) University of Guelph, Guelph, ON, Canada; (2) Africa Rice Center, Cotonou Benin; (3) University of Minnesota, St Paul, MN, U.S.A.; (4) Associate Professor, Dept. of Food Science and Nutrition, Univ. of Minnesota, St Paul, MN, U.S.A.
- 127-P Viscosity measurement of β -glucan containing cereal products using Rapid Visco Analyser: A collaborative study. T.H. Gamel (1), E.M. ABDEL-AAL (1), S.M. Tosh (2). (1) Agriculture and Agri-Food Canada, Guelph, ON, Canada; (2) Agric and Agri-Food Canada, Guelph, ON, Canada

- 128-P A study of factors influencing the farinograph absorption of Canadian hard red winter wheats with a focus on pentosan content. Y. WU (1), H.D. Sapiststein (1), R.J. Graf (2). (1) Univ.of Manitoba, Winnipeg, MB, Canada; (2) Agriculture and Agri-Food Canada Lethbridge Research Centre, Lethbridge, AB, Canada
- 129-P Physical and rheological approaches for defining the overall quality of cowpea-enriched breakfast cereals. M. PAGANI (1), L. Baffour (2), J. Manful (3), P. Johnson (4), S. Firibu (2), L. Azzini (1), F. Bonomi (5), M. Marengo (1), S. Buratti (1), S. Benedetti (1), M. Zanoletti (1), S. Iametti (1). (1) DeFENS, University of Milan, Milan Italy; (2) Department of Nutrition and Food Science, University of Ghana, Accra Ghana; (3) AfricaRice, Cotonou Benin; (4) CSIR- Head Office, Accra Ghana; (5) DeFENS University of Milan, Milan Italy
- 130-P Effects of nitrogen availability during grain filling on the wheat protein-Alveograph W linear relationship. D. VAZQUEZ (1), A.G. Berger (2), E. Johansson (3). (1) INIA, Colonia Uruguay; (2) INIA, La Estanzuela Uruguay; (3) The Swedish University of Agricultural Sciences, Alnarp Sweden
- 131-P A modified dough preparation protocol for Extensograph test of dough strength. B. Fu (1), B. Dupuis (1), J. SUCHY (1). (1) Canadian Grain Commission, Winnipeg, MB, Canada
- 132-P Effects of enzymes and emulsifiers on the rheological properties of whole-wheat dough and the quality attributes of whole-wheat raw noodle. M. Niu (1), G. HOU (2), J. Kindelspire (3), P. Krishnan (3), Z. Chen (1). (1) Jiangnan University, Wuxi China; (2) Wheat Marketing Center, Portland, OR, U.S.A.; (3) South Dakota State University, Brookings, SD, U.S.A.
- 133-P Evaluating Dough Mixing Properties at Different Mixing Speeds with Farinograph-AT. K. GEHRING (1), G. Hou (2), B. Lee (1). (1) Wheat Marketing Center, Inc., Portland, OR, U.S.A.; (2) Wheat Marketing Center, Portland, OR, U.S.A.
- 134-P Characterization of Increased Elastic Compression-Recovery Behavior of Gluten Treated with β -Glucan-Containing Oat Bran Materials. S.R. KAHN (1), S.J. Mulvaney (1). (1) Cornell University, Ithaca, NY, U.S.A.
- 135-P Understanding the Surface Properties of Flour from Different Wheat Classes and their Relation to Flow Behavior. K. Siliveru (1), J.W. Kwek (2), G. Lau (3), D. Pai (3), K. AMBROSE (4). (1) Kansas State University, Manhattan, KS, U.S.A.; (2) Institute of Chemical and Engineering Sciences, A*STAR, Singapore Singapore; (3) Institute of Chemical and Engineering Sciences (ICES), A*STAR, Singapore Singapore; (4) Kansas State Univ, Manhattan, KS, U.S.A.
- 136-P Impact of intermediate wheat grass (*Thinopyrum intermedium*) on dough rheological properties. X. QIU (1), A. Marti (2), K. Seetharaman (1). (1) University of Minnesota, St. Paul, MN, U.S.A.; (2) University of Milan, Milan Italy
- 137-P The influence of abiotic stress conditions on Mixsmart characteristics of two commercial bread wheat cultivars. M.J. MOLOI (1), M.T. Labuschagne (1). (1) University of the Free State, Bloemfontein South Africa

Rice (Posters 138-149)

Scientific Initiatives: Engineering & Processing

- 138-P Effect of soaking temperature on properties of comingled rice. K. LEETHANAPANICH (1). (1) University of Arkansas, Fayetteville, AR, U.S.A.
- 139-P Effects of soaking and steaming regimes on the quality of artisanal parboiled rice. J. MANFUL (1), S. Ndingeng (1), S. Graham-Acquaah (1), D. Tchatcha (2). (1) Africa Rice Center, Cotonou Benin; (2) University of Abomey Calavi, Cotonou Benin
- 140-P Influence of growing location on anthocyanin composition and antioxidant activity of several colored rice. S. BAE (1), Y. Jin (1), D. Seong (1), Y. Kim (1), Y. Cho (1), H. Shin (1). (1) Gyeongsangnam-do Agricultural Reaserch & Extension Services, Jinju South Korea
- 141-P WITHDRAWN
- 142-P WITHDRAWN
- 143-P Milled Rice Fissuring Rates of Pureline- and Hybrid-Cultivar Lots. S. MUKHOPADHYAY (1), T.J. Siebenmorgen (1). (1) University of Arkansas, Fayetteville, AR, U.S.A.
- 144-P Impact of Rapid Moisture Adsorption on Rice Milling Yields. S. MUKHOPADHYAY (1), T.J. Siebenmorgen (1). (1) University of Arkansas, Fayetteville, AR, U.S.A.
- 145-P Exploring Rice Quality Traits of Importance to Export Markets. J. Jinn (1), J. PATINDOL (2), Y. Wang (1), T. Siebenmorgen (1). (1) University of Arkansas, Fayetteville, AR, U.S.A.; (2) Univ.of Arkansas, Fayetteville, AR, U.S.A.
- 146-P Micronutrient Fortified Extruded Rice Kernels: Impact of Processing and Formulation on Physico-Chemical Attributes. A. Adedeji (1), M. Joseph (2), S. ALAVI (3). (1) McGill University, Montreal Canada; (2) Kansas State University, Manhattan, KS, U.S.A.; (3) Kansas State Univ, Manhattan, KS, U.S.A.
- 147-P Effect of water treatment on rice grain quality. R.J. BRYANT (1), M. Anders (2), K. Yeater (3). (1) USDA ARS DBNRRC, Stuttgart, AR, U.S.A.; (2) University of Arkansas Rice Research and Extension Center, Stuttgart, AR, U.S.A.; (3) USDA, ARS, Southern Plains Area, College Station, TX, U.S.A.
- 148-P Changes in morphology of starch in parboiled rice kernels. S. Sittipod (1), Y. SHI (1). (1) Kansas State University, Manhattan, KS, U.S.A.
- 149-P Effects of manufacturing factors and rice flour properties on the physicochemical characteristics of whole rice bread. M. Su (1), S. LU (1). (1) China Grain Products R&D Institute, Taipei Taiwan

Starch Digestion (Posters 150-159)

Scientific Initiatives: Health & Nutrition

- 150-P Repeated cooking and freezing of whole wheat flour modifies in vitro starch digestion and fecal fermentation. J.A. ARCILA-CASTILLO (1), D.J. Rose (1). (1) University of Nebraska Lincoln, Lincoln, NE, U.S.A.
- 151-P α -Amylolysis of Great Northern bean starches isolated from five selected cultivars. H. WANG (1), W.S. Ratnayake (1). (1) University of Nebraska-Lincoln, Lincoln, NE, U.S.A.
- 152-P Development of rice products with slower digestibility. R. HSU (1). (1) China Grain Product R&D Institute, New Taipei Taiwan
- 153-P Kinetics of starch digestion of Mexican blue maize varieties as whole grain flours and isolated starches obtained by wet-milling. M. URIARTE-ACEVES (1), P. Sanchez-Pena (1), R. Gutierrez-Dorado (1), C. Reyes-Moreno (1), J. Milan-Carrillo (1). (1) Universidad Autonoma de Sinaloa, Culiacan Mexico
- 154-P Impact of processing conditions and botanical source on the structures of starch hydrolysates following salivary and luminal amylases. K.K. NANTANGA (1), E. Bertoft (2), K. Seetharaman (2). (1) Univ.of Namibia, Windhoek, ON, Namibia; (2) University of Minnesota, St. Paul, MN, U.S.A.
- 155-P Synergistic Amylomaltase and Branching Enzyme Catalysis To Suppress Cassava Starch Digestibility. W. Sorndech (1), D. Sagnelli (1), A. BLENNOW (2), S. Tongta (3). (1) University of Copenhagen, Frederiksberg C Denmark; (2) Univ.of Copenhagen, Frederiksberg C Denmark; (3) Suranaree University of Technology, Amphur Muang Thailand
- 156-P Slowly digestible enriched starch powder from gelatinized high-amylose starch by hydrothermal treatment. E. AGAMA-ACEVEDO (1), B. Lee (2), B.R. Hamaker (2). (1) CEPROBI-IPN, Yautepec, Morelos Mexico; (2) Purdue University, West Lafayette, IN, U.S.A.
- 157-P Processing methods to improve sorghum digestibility. J. LI (1), Y. Wang (1), G. Atungulu (1). (1) University of Arkansas, Fayetteville, AR, U.S.A.
- 158-P Polyphenols have multiple effects on the intestinal α -glucosidases. M. SIMSEK (1), R. Quezada-Calvillo (2), R. Quezada-Calvillo (3), B.L. Nichols (3), B.R. Hamaker (1). (1) Whistler Center for Carbohydrate Research, Food Science, Purdue University, West Lafayette, IN, U.S.A.; (2) Department of Chemistry, San Luis Potosi Mexico; (3) Pediatrics-Nutrition, Houston, TX, U.S.A.
- 159-P Direct in-vitro assay of resistant starch in phosphorylated cross-linked starch. R. Shukri (1), L. Zhu (1), P.A. Seib (1), C. Maningat (2), Y. SHI (1). (1) Kansas State University, Manhattan, KS, U.S.A.; (2) Manildra Group USA, Shawnee Mission, KS, U.S.A.

Starch Structure & Properties (Posters 160-172)

Scientific Initiatives: Chemistry & interactions

- 160-P Application of the novel food emulsifier aggregates to flour or starch based products. A. OGAWA (1), S. Arima (2). (1) Mitsubishi-Kagaku Foods Corporation, Yokohama-city Japan; (2) Mitsubishi-Kagaku Foods Corporation, Yokohama Japan
- 161-P Molecular Encapsulation by amylose of two essential poly-unsaturated fatty acids. P. LE BAIL (1). (1) INRA, Nantes France
- 162-P Characterizing the structure of Hylon VIII maize starch. G. PEYMANPOUR (1), K. Seetharaman (2), E. Bertoft (3), M. Marcone (1), I. Tetlow (4). (1) Dept. of Food Science, University of Guelph, Guelph, ON, Canada; (2) Dept. of Food Science and Nutrition, University of Minnesota, St. Paul, MN, U.S.A.; (3) Dept. of Food Science, Uppsala BioCenter, Swedish University of Agricultural Sciences, Uppsala Sweden; (4) Dept. of Molecular and Cellular Biology, University of Guelph, Guelph, ON, Canada
- 163-P Rheological properties of chestnut and normal maize starches esterified with octenyl succinic anhydride. V.d. Santos (1), G.A. SEHN (1), M. Schmiele (1), Y.K. Chang (1), C.J. Steel (1). (1) State University of Campinas, Campinas Brazil
- 164-P Freeze-drying changes the structure and digestibility of B-polymorphic starches. B. ZHANG (1), K. Wang (1), J. Hasjim (1), E. Li (1), B.M. Flanagan (1), M.J. Gidley (1), S. Dhital (1). (1) Centre for Nutrition and Food Sciences, Queensland Alliance for Agriculture and Food Innovation, University of Queensland, Brisbane Australia
- 165-P Genetic differences in starch synthases control starch fine structure and gelatinization properties in rice. K. WANG (1), J. Hasjim (2), E. Li (1), R.J. Henry (1), R.G. Gilbert (3). (1) Univ.of Queensland, Brisbane Australia; (2) Centre for Nutrition and Food Sciences, Queensland Alliance for Agriculture and Food Innovation, University of Queensland, Brisbane Australia; (3) Univ.of Queensland/Huazhong Uni of Science & Technology, Brisbane Australia
- 166-P Preparation and characterization of water-dispersible starch-fatty acid complexes. T. SEO (1), S. Lim (1). (1) Korea University, Seoul South Korea
- 167-P Physicochemical properties of starch produced by intercrossing between normal and waxy maize. H. YANGCHENG (1), H. Jiang (2), J. Jane (1). (1) Iowa State University, Ames, IA, U.S.A.; (2) Ingredient, Bridgewater, NJ, U.S.A.
- 168-P Observations on the structure of starch from barley grown under constant light conditions. A. GOLDSTEIN (1), E. Bertoft (2), A. Blennow (3), K. Seetharaman (2). (1) Dept. of Food Science and Nutrition, University of Minnesota, St Paul, MN, U.S.A.; (2) Dept. of Food Science and Nutrition, University of Minnesota, St. Paul, MN, U.S.A.; (3) Dept. of Plant and Environmental Sciences, University of Copenhagen, Frederiksberg C Denmark
- 169-P Unit and internal chain profiles of amylopectin from African rice (*Oryza glaberrima*). J.K. GAYIN (1), E. Bertoft (2), J. Manful (3), K. Seetharaman (4). (1) University of Guelph, Guelph, ON, Canada; (2) University of Minnesota, St Paul, MN, U.S.A.; (3) Africa Rice Center, Cotonou Benin; (4) Dept. of Food Science and Nutrition, Univ.of Minnesota, St Paul, MN, U.S.A.

170-P Properties of Starches from Hybrid and Pureline Rice Cultivars. J. PATINDOL (1), J. Li (2), Y. Wang (2), T. Siebenmorgen (2). (1) Univ.of Arkansas, Fayetteville, AR, U.S.A.; (2) University of Arkansas, Fayetteville, AR, U.S.A.

171-P Starch nanoparticles formed by rapidly cooling dispersions of jet-cooked amylose-oleic acid complexes. F.C. FELKER (1), G.F. Fanta (1), J.A. Kenar (1). (1) USDA ARS NCAUR, Peoria, IL, U.S.A.

172-P WITHDRAWN

Whole Grain (Posters 173-184)

Scientific Initiatives: Engineering & Processing

173-P Influence of diet on the in vitro fecal fermentation properties of whole grain wheat. J. YANG (1), D. Rose (2). (1) Univ.of Nebraska, Lincoln, NE, U.S.A.; (2) Univ.of Nebraska, Lincoln, NE, U.S.A.

174-P Enzymatic Hydrolysis of Whole Grain Amaranth. J. LUTZ (1), L. Hansen (2), J. Faubion (3). (1) General Mills, Minneapolis, MN, U.S.A.; (2) General Mills, Minneapolis, MN, U.S.A.; (3) Kansas State University, Manhattan, KS, U.S.A.

175-P Quality Improvement of Whole Wheat Parboiled Alkaline Noodles. W. WANG (1), G.G. Hou (2), E. Arndt (3), L. Marquart (1). (1) University of Minnesota-Twin Cities, St Paul, MN, U.S.A.; (2) Wheat Marketing Center, Inc., Portland, OR, U.S.A.; (3) ConAgra Foods, Inc, Omaha, NE, U.S.A.

176-P WITHDRAWN

177-P Effect of durum cultivar and growing environment on cooking qualities of whole-wheat pasta. L. DENG (1), F.A. Manthey (2). (1) North Dakota State Univ, Fargo, ND, U.S.A.; (2) North Dakota State University, Fargo, ND, U.S.A.

178-P Influence of wholegrain wheat flour and extrusion conditions on texture characteristics of breakfast cereals before and after immersion in milk. L.C. Oliveira (1), M.G. Reis (2), C.J. STEEL (1). (1) University of Campinas (UNICAMP), Campinas, SP Brazil; (2) Instituto de Tecnologia de Alimentos (ITAL), Campinas, SP Brazil

179-P Pre-milling interventions to reduce the microbial load of straight-grade and whole grain flours with minimal impact on flour functionality. L. SabillÃ³n (1), J. Stratton (1), D. Rose (2), R. Flores (1), A. BIANCHINI (1). (1) University of Nebraska - Lincoln, Lincoln, NE, U.S.A.; (2) University of Nebraska - Lincoln, lincoln, NE, U.S.A.

180-P Pre-milling interventions to reduce lipase activity and lipid degradation of straight-grade and whole grain flours during storage. L. SABILLÃ³N (1), A. Bianchini (1), J. Stratton (1), R. Flores (1), D. Rose (2). (1) University of Nebraska - Lincoln, Lincoln, NE, U.S.A.; (2) University of Nebraska - Lincoln, lincoln, NE, U.S.A.

181-P WW bread consumer segmentation by cluster analysis. Q. ZHAO (1), G. Guo (1), B. Guthrie (2), M. Drake (3), E. Uriyo (1). (1) Horizon Milling, Wayzata, MN, U.S.A.; (2) Cargill Global Food Research, Wayzata, MN, U.S.A.; (3) Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC, U.S.A.

182-P An indirect rapid heat moisture treatment method in improving functionality of whole wheat flour. M. KHAMIS (1), J. Wilson (2), H. Dogan (3). (1) Kansas State University, Manhattan, KS, U.S.A.; (2) USDA ARS, Manhattan, KS, U.S.A.; (3) Kansas State Univ, Manhattan, KS, U.S.A.

- 183-P Evaluating the effects of rapid indirect heat moisture treatment on whole wheat flour protein. M. KHAMIS (1), S. Bean (2), H. Dogan (1). (1) Kansas State University, Manhattan, KS, U.S.A.; (2) USDA ARS, Manhattan, KS, U.S.A.
- 184-P Whole grain likeability among undergraduate college students. T. MELLETTE (1), M.E. Camire (2), M. Dougherty (2). (1) University of Maine, Bangor, ME, U.S.A.; (2) University of Maine, Orono, ME, U.S.A.