



# 75<sup>th</sup> IIRB Congress – 16-17 February 2016

## Poster Programme

### 1 Breeding and seeds

- 1.1 Andrello M., K. Henry, P. Devaux, B. Desprez, S. Manel Taxonomic, spatial and adaptive genetic variation of *Beta* section *Beta* and *Beta vulgaris* subsp. *maritima*
- 1.2 Mangin B., F. Sandron, K. Henry, B. Devaux, G. Willems, P. Devaux, B. Desprez, E. Goudemand Breeding patterns and cultivated beets origins by genetic diversity and linkage disequilibrium analyses
- 1.3 de Lucchi C., L. Hanson, M. McGrath, P. Stevanato, M. de Biaggi, L. Panella High resolution melting (HRM) analysis in sugar beet: identification of SNP markers associated to Fusarium resistance
- 1.4 Litwiniec A., B. Choińska, Ż. Świtalska, M. Gośka Detection of SNPs accompanying different rhizomania resistance sources in breeding materials of sugar beet
- 1.5 Kozak-Stankiewicz K., J. Jankowicz-Cieślak, J. Noceń, A. Sitarski Sugar Beet DHLs production: estimation of DNA ploidy levels and gametes origin confirmation
- 1.6 Kozak-Stankiewicz K., J. Noceń, J. Bocianowski, A. Sitarski Utilizing doubled haploid (dh) technology for in vitro drought tolerance screening
- 1.7 Desmet F., G. Legrand, A. Wauters, X. Draye Dynamic analysis of root architecture of sugar beet (*Beta vulgaris*) using an aeroponic phenotyping platform
- 1.8 Bahadorbeigi A., M. Honarvar The effect of sugar beet seed varieties on technological quality and its physical properties (Iran-Hamadan)
- 1.9 Richard B. Genetic progress on sugar beet in French VCU registration trials
- 1.10 Hoberg F., C. Kenter, B. Märlander Genotype × environment interactions in sugar beet and implications for variety choice in Germany
- 1.11 Curcic Z., M. Ciric, N. Nagl, K. Zarubica, J. Kojic, R. Jevtic-Mucibabic, M. Bodroza Solarov Performance of sugar beet hybrids in the variety registration trials in Serbia under the extreme climatic conditions
- 1.12 Jay S., F. Maupas, N. Gorretta Optical remote sensing of canopy nitrogen content in sugar beet crops for phenotyping applications
- 1.13 Ducournau S., M.H. Wagner, D. Demilly, F. Maupas, C. Dürr Sugar beet seed quality related to field emergence: automated phenotyping in laboratory to predict crop establishment
- 1.14 Pedersen H.C., A. Svingel Improving plant establishment with microorganisms
- 1.15 Long J., B. Odunlami Effect of priming intensity on the storability of sugar beet seed
- 1.16 Long J. Use of the seed viability equation to relate different storage conditions and predict shelf life of a seed lot
- 1.17 Oumouss S., I. Rahmouni, G. Tobi, H. Tahiri, M. Bouksaim, Y. El Bahloul Morphological characterization of Moroccan wild beet genetic resources and study of the heritability of characters
- 1.18 Tobi G., S. Oumouss, I. Rahmouni, O. Benlhabib, Y. El Bahloul Contribution to the genetic improvement of a Moroccan sugar beet germplasm

### 2 Agronomy

- 2.1 Gouwie C., S. Dupin A long term survey of cultural practices
- 2.2 Malmilehto S., M. Turakainen, S. Muurinen Crop rotation trial in Finland. Results 2012-2014
- 2.3 Olsson Å., L. Persson The effect on sugar yield in different crop rotations with sugar beet, oil seed rape and intercrops
- 2.4 Ciric M., N. Nagl, K. Taski-Ajdukovic, M. Brdar-Jokanovic, V. Zupunski, Z. Curcic Intercropping sugar beet and poppy seed: opportunities and challenges
- 2.5 Campagna G., M. Zaghi Irrigation for optimizing sugar beet production in Po' river valley



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- 2.6 Morillo-Velarde R., Salvatierra B. Uniformity of irrigation in new sprinklers at low pressure
- 2.7 Elsayed H.M., A.M. Osman Yield and quality of two sugar beet varieties as affected by water regimes and soil treatments
- 2.8 Morishita D.W., K.M. Belmont, E.J. Wenninger, H.W. Neibling Tillage system, nitrogen fertilizer, and irrigation effects on insect, weeds and sugar beet yields
- 2.9 Wenninger E.J., J.R. Vogt, K.E. Daku, D.W. Morishita, W.H. Neibling, O.T. Neher Effects of tillage practices in sugar beet on abundance and diversity of predatory arthropods
- 2.10 Aeckerle N., N. Stockfisch Interactions between soil tillage and weed control in practice - data of surveys in Germany
- 2.11 Koch H.-J., D. Laufer, B. Loibl, G. Schlinker, F. Schmitz Autumn strip tillage for sugar beet grown on loess soil in Germany
- 2.12 Mioduszevska N., J. Przybyl, M. Adamski, T. Wojciechowski Evaluation of strip-tillage system in comparison with other technologies in the sugar beet production
- 2.13 Przybył J., N. Mioduszevska, K. Pilarski, I. Kowalik Changes in the physical soil properties during the growing season of sugar beet including the different tillage technologies
- 2.14 Sigl G. Effects of different soil management systems on nitrogen availability in a long-term trial
- 2.15 Sigl G. The effect of different intercrop species on the nitrogen availability
- 2.16 Schnepel K., C. Hoffmann Potential yield of sugar beet at extended growing period
- 2.17 Potyondi L., F. Csima, É. Kulcsárné Takács, J. Kimmel Potential of sugar beet growing in the Danube region
- 2.18 Wauters A., G. Legrand Possibility of sugar beet yield increase by earlier sowing in Belgium
- ### 3 Plant nutrition
- 3.1 Legrand G., A. Wauters, F. Vancutsem, M. de Toffoli, R. Lambert Effect of an application of organic manure, combined with a cover crop containing leguminous plants on the nitrogen fertilization of the sugar beet. First trial year
- 3.2 Turakainen M., S. Muurinen, S. Malmilehto Divided N fertilizer use during the growing season
- 3.3 Turakainen M. What is the right level of N fertilization for sugar beet in Finland
- 3.4 Malmilehto S., M. Turakainen, S. Muurinen Effect of starter application of phosphorus on yield
- 3.5 Jákli B., M. Senbayram, J. Meyer zur Müdehorst, M. Fuchs, F. Böttcher, F. Hertwig, A. Lingner, K. Dittert Drone based remote sensing of sugar beet water-use efficiency
- 3.6 Fischer S., D. Horn, K. Bürcky, H.-J. Koch Adaptation of potassium fertilization in calcium (lime) deficient soils – experimental and statistical evaluation
- 3.7 Olsson Å., L. Persson Repeated testing of soil factors after liming of 52 different soil types in the south of Sweden 2009-2014
- 3.8 Bussell J., D. Sparkes, S. Mooney, M. Broadley Identifying rooting traits for optimal nutrient uptake
- ### 4 Weed control
- 4.1 Kunz C., P. Risser, J. Maier, R. Gerhards Effect of different cover crop cultivation systems on weed suppression in sugar beets
- 4.2 Gerhards R., M. Sökefeld, G. Petenatos, A. Nabout, J. Maier, P. Risser Robotic intra-row hoeing in sugar beet



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#### 5 Control of pests and diseases

- 5.1 Thomsen J.N., A. Lisbet Hansen, B. Secher, E. Busk Andersen, C. Nørgaard IPM in sugar beets – a joint project of local farmers associations DLS and OeL, Nordic Sugar, NBR, Aarhus University, Copenhagen University and SEGES
- 5.2 Schlatter C. A new broad-spectrum fungicide sugar beet seed treatment
- 5.3 Renner A.-C., R. Apfelbeck, J. Maier, M. Zellner Monitoring *Rhizoctonia solani* AG2-2 inoculum levels in sugar beet field soils
- 5.4 Schulze S., H.-J. Koch Impact of physical soil properties on the occurrence of *Rhizoctonia* root and crown rot in sugar beet (*Beta vulgaris* ssp. *vulgaris*)
- 5.5 Kreitzer C. Preventative effects of BCA-coated intercrop seeds against *Rhizoctonia solani*
- 5.6 Stojšin V., D. Budakov, F. Bagi, A. Konjević, Ž. Čurčić, D. Latković, J. Crnobarac Influence of the long-term mineral fertilization and cultivar on sugar beet root rot
- 5.7 Kaczmarek A., M. Stevens SporeID – innovative disease monitoring and diagnostics for improved efficiency of crop production
- 5.8 Campagna G., F. Cioni Integrated strategies for *Cercospora* Leaf Spot (CLS) control
- 5.9 Schmitt J., B. Kleinhenz, J. Maier, P. Risser, C. Lang, P. Racca CERC BET 3 plus – a new action threshold against *Cercospora beticola* (Sacc.) in sugar beet based on white sugar yield and infection pressure
- 5.10 Kremer P. Possible impact of climate change on the occurrence and the epidemic development of *Cercospora* leaf spot disease in sugar beet in Southwest Germany
- 5.11 Budakov D., V. Stojšin, F. Bagi, Ž. Čurčić, M. Grahovac, N. Đuragin Efficacy of clorothalonil fungicide combinations in control of *Cercospora* leaf spot
- 5.12 Budakov D., V. Stojšin, N. Nagl, G. Pogančev, F. Bagi, M. Grahovac, K. Taški Ajduković, O.T. Neher Sensitivity of *Cercospora beticola* isolates in 2015 in Serbia
- 5.13 Kimmel J., L. Potyondi, F. Csima, É. Kulcsárné Takács Protection against fungicide resistant *Cercospora* strains in Hungary
- 5.14 Persson L., Å. Olsson Verticillium wilt in sugar beets in Sweden
- 5.15 Hanse B., E. van Oorschot Diagnostics of *Stemphylium beticola* nom. prov. in sugar beet
- 5.16 Hanse B. Stemphylium in sugar beet - factors influencing infection
- 5.17 Hanse B., E. Raaijmakers Rhizomania: spread of and research on resistance breaking BNYVV tetrad types in the Netherlands
- 5.18 Knüfer J., H. Eigner, A. Schechert Occurrence of various types of BNYVV in Austrian soils
- 5.19 Stevens M. A novel pre-breeding strategy to reduce dependence on insecticides for virus yellows control in sugar beet
- 5.20 Konjević A., V. Stojšin, D. Budakov, F. Bagi, M. Petrović, A. Popović, Ž. Čurčić, G. Jaćimović, D. Latković, J. Crnobarac Influence of mineral nutrition and cultivar on sugar beet infestation with the root aphid *Pemphigus fuscicornis* Koch
- 5.21 Wießner J., M. Molthan, B. Holtschulte Dynamics of nematode populations by growing susceptible, tolerant and resistant sugar beet varieties – results of a nationwide systematic field trial in Germany and Austria 2012-2014
- 5.22 Windt A., M. Hauer, S. Mittler, K. Geburt, H.-J. Koch Integrated control of beet cyst nematodes by catch crop cultivation and sugar beet variety choice



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- 5.23 Reuther M., C. Lang, F.M.W. Grundler Are nematode tolerant sugar beet varieties resistant or susceptible to the beet cyst nematode *Heterodera schachtii*?
- 5.24 Fischer J., M. Reuther, P. Kremer Temperature dependent development of *Heterodera schachtii* in a changing climate in Southwest Germany
- 5.25 Riepl J. Yield development in assessment trials with nematode tolerant varieties
- 5.26 Nowakowski M., P. Skonieczek, L. Matyka, M. Zurek, T. Banaszek Antinematode effect (*Heterodera schachtii*) and yields of selected white mustard lines and varieties cultivated as stubble catch crop on black earth in Poland
- 5.27 Turakainen M., S. Muurinen Nematode situation and variety trials in Finland
- 5.28 Hafez S., S. Palanisamy Chemical and nonchemical strategies for sustainable sugar beet cyst nematode management in Idaho, USA
- 5.29 Schlatter C. Clariva™ Seed Treatment Nematicide, a breakthrough for sugar beet production

## 6 Harvest, storage and beet quality

- 6.1 Kulcsárné Takács É., F. Csima The effect of the e-toll on the sugar beet logistics
- 6.2 Chassine J.M., A. Tordeur, A. Gosset Tereos communicate with his farmers on the yield conservation during the beet storage
- 6.3 Gosset A., J.M. Chassine, A. Tordeur Chopped straw to protect beet clamps against frost: Tereos methods and experiences
- 6.4 Tordeur A., J.M. Chassine, A. Gosset The 'Non Commercial Beet' (NCB) rate: a major agronomical indicator
- 6.5 Legrand G., A. Wauters Ability of sugar beet varieties to the long-term storage: Improvement of the IRBAB methodology
- 6.6 Becker M., M. Varrelmann, D. Christ Impact of harvest technology on storage rot formation and invert sugar accumulation during long-term storage of sugar beet
- 6.7 Striebig J.-L. Campaign length and sugar content of rotten beets
- 6.8 Bąk P., A. Antczak-Chrobot, M. Wojtczak The kinetics of changes in the quality of frost damaged sugar beet
- 6.9 Bazrafshan M., Y. Emam, S. R. Fallah Shamsi, M. Abdollahian Noghabi Sugar beet root yield estimation by remote sensing data
- 6.10 Aghaei M., M. Honarvar, M. Mizani, M. Bazrafshan Changes in technological quality of sugar beet (*Beta vulgaris* L.) during its harvest and long-term storage in Fars, Iran
- 6.11 Khayamim S. Sugar beet protein pattern under salinity stress at establishment and harvest time
- 6.12 Bendoula R., A. Gobrecht, A. Ducanchez, A. Herrero-Langero, P. Guerrero-Castro, J.-M. Roger The potential of an invasive but non-destructive fiber-optic probe for soluble solids content in whole sugar beets

## 7 Communication and cooperations

- 7.1 Duval R. *et al.* Syppre project: Development and test of innovative crop systems in field crops areas