77TH IIRB CONGRESS, 11-12/2/2020, BRUSSELS
POSTER PROGRAMME

IIRB
INTERNATIONAL INSTITUTE OF SUGAR BEET RESEARCH

1 Agronomy

Nutrient supply

1.1	G. Campagna, M. Sandona	Sugar beet and other crops in rotation sustainability cultivation (Carbon footprint) in Italy
1.2	P. Götze, H.-J. Koch	Effect of crop rotation and removal of beet leaves and tops on soil organic carbon stocks in the crop rotation experiment at Harste
1.3	G. Bodner, H. Eigner, D. Horn, S. Geyer, K. Keiblinger	EUF soil extraction for the determination of structure-relevant organic carbon fractions
1.4	A. Stracke, H.-J. Koch	Above- and below-ground biomass and N uptake of catch crops affecting soil N_{min} over winter
1.5	D. Horn, G. Müller	Challenges of nitrogen and phosphorus fertilization advice for sugar beets with regard to the implementation of the EU Nitrates Directive
1.6	M. Zavanella, M. Cenacchi, D. Rosini, G. Campagna	Survey on soil fertility in the Coprob beet communities: second contribution
1.7	J. Ekelöf	Decreasing soil P and K reserves – a hidden threat to improvements in sugar beet yields
1.8	Å. Olsson Nyström, L. Persson, J. Blomquist	Structure lime and ground limestone in sugar beet rotations
1.9	S. Malmilehto	Structural liming in Finland
1.10	S. Muurinen	Survey of sulfur status of sugar beet in Finland

Tillage

1.11	J. Przybył, N. Mioduszewska, I. Kowalik	Analysis of simplified tillage systems in sugar beet production in the aspect of yield quantity and quality
1.12	N. Mioduszewska, J. Przybył, K. Pilarski	Analysis of simplified tillage systems in sugar beet production in the aspect of soil physical properties
1.13	R. Duval, V. Tomis	Soil compaction in Northern France sugar beet crop systems: a collaborative study to give a clear picture of the situation and identify solutions

Seed quality, sowing and early establishment

1.14	S. Ducournau, A. Wauters	Testing *Beta vulgaris* seed quality in laboratory to predict field emergence
1.15	J. Long, R. Marcinek, J. Brooks	Improving young plant growth with seed technologies
1.16	H. Ebmeyer, C. Hoffmann	Reasons for the strong effect of drought stress in young sugar beet plants
1.17	L. Tillier	The impact of canopy architecture on radiation use efficiency and yield potential of sugar beet
1.18	C. Hoffmann	Can yield of sugar beet varieties be assessed by the leaf canopy?
1.19	M. Zavanella, G. Campagna, A. Vacchi, A. Fabbri	Feasibility study of autumn sowing in the Coprob districts (Italy)

Organically grown sugar beet

1.20	M. Cenacchi, G. Campagna, M. Zavanella, D. Rosini	Organic sugar beet cultivation in Italy – first experience on field
1.21	A. Lorriaux, B. Jacobs, M. Brandt, B. Dequiedt, B. Vandamme	Challenges and opportunities of organic sugar beet seed production for SESVanderHave
1.22	O. Nielsen	Three-year experience with organic sugar beets

Communication/Benchmarking

1.23	C. Roß, K. Trimpler, N. Stockfisch	Communication of data from a farm survey
1.24	N. Stockfisch, C. Roß, A.-K. Mahlein	Comparison of indicators for pesticide use intensity

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Digital technologies

1.25	F. Joudelat, D. Dutartre, S. Madec, E. David	Measuring vegetative heterogeneity of sugar beet varieties with drone and deep learning phenotyping
1.26	T. Ekblad	Automatic image analysis of sugar beet – a deep learning approach
1.27	A. Barreto, S. Paulus, A.-K. Mahlein	Proof of concept for the digital visual rating of Cercospora leaf spots using multispectral UAV images
1.28	G. Campagna, A. Fabbri, M. Bassi, A. Bresolin	Monitoring water-nutritional and NDVI on sugar beet in Italy
1.29	U. Wilczek	Development of a sensor system for low-damage sugar beet harvest – state and perspectives

Harvest, storage, and beet quality

1.30	A. Andrusiak, Z. Wyszyński	Evaluation of sugar beet yield depending on the method and harvesting date
1.31	C. Kenter, E. Ladewig	Storability as a varietal characteristic of sugar beet?
1.32	M. Leijdekkers	Experiences with mechanical ventilation of sugar beet storage clamps in the Netherlands
1.33	S. Malmilehto	Fleece cover for sugar beets. Risk or possibility?
1.34	N. Nause, C. Hoffmann	Cambium rings and cell wall composition of sugar beet genotypes differing in root strength
1.35	W. English	In season texture analysis of sugar beets using a handheld penetrometer
1.36	M. Nilsson	Pressure mapping of sugar beets
1.37	E. Hilscher, H. Narten, S. Meldau	Opportunity to improve sugar beet quality lab sample measurement and analysis quality using the BEETROMETER™

2 Pest, disease and weed challenges

Root rot diseases

2.1	L. Persson	Measurement of Aphanomyces root rot potential in soil
2.2	J. Vegas, E. De Bruyne, I. Adetunji, O. Amand	Genetic study of charcoal rot (*Macrophomina phaseolina*) resistance in sugar beet using a diverse panel of commercial and non-commercial hybrids
2.3	V. Stojšin, D. Budakov, Ž. Ćurčić, A. Stankov, T. Dudaš, F. Bagi, N. Nagl	Influence of NPK mineral nutrition and cultivar on sugar beet root rot
2.4	A. Stankov, N. Nagl, V. Stojšin, D. Budakov, F. Bagi, T. Dudaš, M. Isakov	Characterization of *Trichoderma* spp. for antagonistic activity against charcoal root rot *Macrophomina phaseolina* from sugar beet

Fungal leaf diseases

2.5	D. Budakov, V. Stojsin, Z. Curcic, T. Dudas, A. Stankov, F. Bagi, M. Grahovac	Influence of sugar beet cultivar and NKP nutrition on Cercospora leaf spot
2.6	Ž. Ćurčić, D. Budakov, A. Stankov, K. Taški-Ajduković, N. Nagl, V. Stojšin	Effect of different sowing dates on *Cercospora beticola* infection level
2.7	M. Vanderstukken, J. Sels, O. Amand, D. Boehm, H. Tschoep	An integrated breeding approach towards Cercospora resistant varieties – a perspective from SESVanderHave
2.8	M. Khan, G. Campagna	Strategic management of *C. beticola* using improved resistant cultivars of sugar beet
2.9	M. Müllender, M. Varrelmann, G. Stammler	Possible causes and mechanisms for alterations in the sensitivity of *Cercospora beticola* towards DMI fungicides
2.10	T.M. Heick, A. Fejer Justesen, L. Nistrup Jørgensen, A.L. Hansen	Disease control and management of QoI resistance of sugar beet powdery mildew (*Erysiphe betae*) in Scandinavia
2.11	H. Yvanne	Can we harness disease resistance by association directly in wild sea beet?

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Beet pests

2.12	G. Campagna, A. Vacchi	*Lixus junci* and *Conorrhinchus mendicus* diffusion on sugar beet in Po Valley and control strategy
2.13	M. Mayrhofer, F. Kempl, H. Eigner	Sugar-beet weevil (*Bothynoderes punctiventris*) – Investigations on the efficacy of insecticides in model trials
2.14	Z. Klukowski, J. Piszczek	Biological aspects of Sugar Beet Weevil control – Polish experience of 2014-2019 outbreak
2.15	G. Malatesta, W. Huet	Increase of the weevil population in France
2.16	A. Olsson Nyström	Free living nematodes and root gall nematodes in sugar beet

Growing sugar beet in a post-neonic world

2.17	C. Royer, C. Gouwie, F. Boyer, F. Maupas	The aftermath of the neonicotinoid ban in France: first lessons and new perspectives
2.18	F. Kempl, K. Wechselberger	Efficacy of seed treatments with and without neonicotinoids
2.19	N. Wynant, I. Munnery, J. Sels, H. Liesse, G. Willems, J. Vegas, E. de Bruyne, O. Amand, H. Tschoep	An integrated breeding approach to develop insect tolerant varieties at SESVanderHave
2.20	L. Frijters, E. Raaijmakers, L. de Zinger	Testing alternative pesticides and monitoring systems for the control of pygmy mangold beetles (*Atomaria linearis*) under field conditions
2.21	K. Antoons, F. Vancutsem	Optimizing of pest management in Belgium thanks to the observation and warning network
2.22	R.H.M. Wouters, R. Biello, S.T. Mugford, E. de Bruyne, F.-J. Bulthuis, I. Munnery, R. Robinson, N. Wynant, G. Willems, D.G.O. Saunders, S.A. Hogenhout, T.C. Mathers	Global diversity of the sugar beet aphid pest *Myzus persicae*
2.23	E. Raaijmakers, F.-J. Bulthuis, N. Wynant, E. De Bruyne, J. Luimes	Monitoring of aphids in sugar beet fields and trial fields, a basic tool to understand virus yellow epidemics in the post neonic era
2.24	R. Hossain, W. Menzel, M. Varrelmann	Virus yellows in sugar beet – biology, occurrence and influence on yield parameters
2.25	D. Budakov, V. Stojsin, Z. Curcic, T. Dudas, N. Nagl, F. Bagi, M. Grahovac	Sugar beet virus diseases in Serbia
2.26	Ž. Ćurčić, Ž. Milovac, K. Taški-Ajduković, A. Stankov, A. Radonjić, O. Petrović-Obradović, B.-L. Lennefors	Beet Yellow Virus a possible threat to sugar beet production in Serbia?

Virus resistance breeding, variety testing

2.27	L. James	A novel pre-breeding strategy to reduce dependence on insecticides for virus yellows control in sugar beet – a final update
2.28	A. Wright, M. Stevens, E. Murchie, D. Sparkes	Phenotyping varietal responses of sugar beet to virus yellows, beet cyst nematode and foliar diseases
2.29	C. Nilsson, T. Kraft, B.-L. Lennefors	Successful breeding for resistance/tolerance to virus yellows at MariboHilleshög
2.30	K. Okazaki, Y. Kuroda, K. Takashino, H. Matsuhira, S. Ueda	Resistance breeding to virus yellows in Japan
2.31	N. Behnke, W. Beyer	Breeding for virus yellows resistance – a new success story?
2.32	Y. Kuroda, K. Okazaki, K. Takashino	QTL analysis of resistance to *Beet leaf yellowing virus* (BLYV)

2.33	M. Rekoske, H. Friehe, J. Miller	Betaseed: 50 Years of innovation – a company looking to the future
2.34	C. Kenter, P. Götze, E. Ladewig	Effects of sample size and head rows on the precision of variety trials in sugar beet
2.35	A. Wauters, K. Antoons	Field testing for BMYV-tolerance in sugar beet with different inoculation techniques

Other pests and disease issues

2.36	L. Potyondi	Challenges of non-renewal of approval of pesticides in Hungarian sugar beet production
2.37	L. Holmquist, S. Mittler, J. Fernando Gil, R. Johnsson	Syndrome Basses Richesses (SBR) in Sugar beet – crop robustness as a potential element for control
2.38	A. Wauters	Silvering disease in sugar beet caused by *Curtobacterium flaccumfaciens* pv. *betae* in Belgian sugar beet trials

Rhizomania

2.39	C. Chiodi, C. Broccanello, P. Stevanato, G. Campagna, L. Treu, M. Moro, G. Bertoldo, M.C. Della Lucia, S. Ravi, L. Maretto, S. Campanaro, G. Concheri, A. Squartini	Bacterial community composition in a soil carrying a resistance-breaking strain of the rhizomania virus BNYVV in comparison to standard soils
2.40	S. Liebe, E. Maiss, M. Varrelmann	Application of a reverse genetic system for *Beet necrotic yellow vein virus* to study Rz1 resistance breaking in sugar beet
2.41	V. Wetzel, M. Varrelmann	Rz2 – a plant anti *Beet necrotic yellow vein virus* resistance protein derived from *Beta vulgaris* targets the viral movement-protein TGB1 as avirulence gene

Weed control

2.42	D. Laufer, E. Ladewig	Weed control in sugar beet without the active substances desmedipham and phenmedipham
2.43	S. Geyer, F. Kempl, H. Eigner	Weed control missing des- and phenmedipham
2.44	S. van der Heijden, E. Raaijmakers, I. Wijgergangs	Effectiveness of ALS-herbicides registered for cereals to control ALS-tolerant and ALS-non-tolerant weed beets
2.45	C. Stibbe, M. Klie, W. Wegener, J. Wiessner	CONVISO® SMART – experiences of the first two years in practice
2.46	D. Hyndrikx, X. Sauvenier, N. De Temmerman	Performance of CONVISO® SMART sugar beet varieties under different weed control strategies
2.47	J. Kimmel	Experiences with CONVISO® SMART technology in field trials in Hungary
2.48	M. Palomäki	Farmers' opinions about the CONVISO® SMART system in Finland
2.49	M. Palomäki	Tips of the use of CONVISO® SMART in Finland
2.50	M. Khan	Experiences and lessons learned from a decade of using herbicide tolerant sugar beet in the USA
2.51	C. Royer	Weeds resistant to chemical herbicide
2.52	R. Euben	How to use drift reducing spray nozzles and maintaining good weed control