

51st Annual

Sugarbeet Research

Reporting Session



Tuesday January 12, 2021
Virtual



(*) Author presenting the paper

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NDSU | NORTH DAKOTA STATE UNIVERSITY

 UNIVERSITY OF MINNESOTA | EXTENSION

Speakers should use 12 to 13 minutes for presentations and leave 2 to 3 minutes for questions.

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| 7:00 | Welcome, USA Situation, Dr. Khan, Mr. Eric Erdman, Dr. Lardy and Dr. Bev Durgan | 9:00 | Sugarbeet tolerance and weed efficacy with acifluorfen. Emma L. Burt** ¹ , Thomas J. Peters ² , and David Mettler ³ , ¹ Graduate Student, North Dakota State University, Wahpeton, ND, ² Extension Sugarbeet Agronomist and Weed Control Specialist, North Dakota State University and University of Minnesota, Fargo, ND, and ³ Research Agronomist, Southern Minnesota Beet Sugar Cooperative, Renville, MN. |
| 7:30 | Sugar beet research at IFZ – Prof. Anne-Kathrin, Head of Institute of Beet Research (IfZ) at the University of Goettingen, Germany. | 9:15 | Weed control using high voltage electricity. *Ryan M. Borgen ¹ and Thomas J. Peters ² , ¹ Student, North Dakota State University, Fargo, ND, ² Extension Sugarbeet Agronomist and Weed Control Specialist, North Dakota State University and University of Minnesota, Fargo, ND. |
| 7:45 | Pest and disease issues and advances of sugar beet in Europe – Prof. Mark Stevens, Head of Science, British Beet Research Organization, Norwich, UK. | 9:30 | Molecular basis of fungicide resistance in the leaf spot pathogen <i>Cercospora beticola</i> *Melvin Bolton, Rebecca Spanner, Jonathan Neubauer, Viviana Rivera-Varas, and Gary Secor Melvin |
| 8:00 | Weed Control of Sugar Beet in France: Strategy and possibilities for the future – Mr. Cedric Royer, Institut Technique de la Betterave (ITB), Paris, France. | 9:45 | Characterizing <i>Cercospora beticola</i> spore germination. *Viviana Rivera-Varas, North Dakota State University |
| 8:15 | Plant and soil: Challenges and Progress – Dr. Heinz-Josef Koch, Agronomy Department, Institute of Sugar Beet Research (IfZ) at the University of Goettingen, Germany. | 10:00 | Break |
| 8:30 | **Waterhemp control in sugarbeet. Thomas J. Peters* ¹ , Alexa L. Lystad ² , and David Mettler ³ , ¹ Extension Sugarbeet Agronomist and Weed Control Specialist, ² Research Specialist, North Dakota State University and University of Minnesota, Fargo, ND, and ³ Research Agronomist, Southern Minnesota Beet Sugar Cooperative, Renville, MN. | 10:15 | Identification and introgression of beneficial genes to improve biotic stress resistance and sugar yield in sugarbeet. Chenggen Chu*, Rachael Poore, Melvin Bolton, Mark Boetel, Mohamed Khan, Mike Metzger, Joe Hastings, Karen Fugate, Vanitharani Ramachandran, John Weiland |
| 8:45 | **Hooded sprayer for application of nonselective herbicides in sugarbeet. Alexa L. Lystad* ¹ , Thomas J. Peters ² , and David Mettler ³ , ¹ Research Specialist, ² Extension Sugarbeet Agronomist and Weed Control Specialist, North Dakota State University and University of Minnesota, Fargo, ND, and ³ Research Agronomist, Southern Minnesota Beet Sugar Cooperative, Renville, MN. | 10:22 | CRISPR-based next-generation diagnostic method development for detecting viruses in sugarbeet. Vanitha Ramachandran*, John Weiland and Melvin Bolton |
| | | 10:30 | Effect of <i>Cercospora</i> Leaf Spot on Sugarbeet Root Storage Properties Karen Fugate ¹ , Mohamed Khan ² , John Eide ¹ , Peter Hakk ² , and Abbas Lafta ² ¹ USDA-ARS, Fargo ND ² Department of Plant Pathology, North Dakota State University, Fargo, ND |

10:45	Monitoring sensitivity of <i>Cercospora beticola</i> to foliar fungicides in sugar beet fields of Minnesota and North Dakota in 2021. *Gary Secor, North Dakota State University	1:15	Management of full-season Rhizoctonia in sugarbeet ASHOK K. CHANDA* ^{1,2} and Jason R. Brantner ^{3,1} University of Minnesota Northwest Research and Outreach Center, Crookston, MN; ² Department of Plant Pathology, University of Minnesota, St. Paul, MN; ³ American Crystal Sugar Company, Moorhead, MN	3:30	What are biofumigants and are they worth applying? Daniel Kaiser, University of Minnesota
11:00	Fitness of <i>C. beticola</i> resistant populations and their management with fungicides. Yangxi Liu ^{1*} and Mohamed F. R. Khan ² . ¹ Plant Pathology Department, North Dakota State University, Fargo, ND; ² University of Minnesota	1:30	qPCR-based detection and genome assembly of <i>Aphanomyces cochlioides</i> JACOB R. BOTKIN* ¹ , Cory D. Hirsch ² , Frank N. Martin ³ and Ashok K. Chanda ^{1,2} ¹ University of Minnesota Northwest Research and Outreach Center, Crookston, MN; Department of Plant Pathology, University of Minnesota, St. Paul, MN; ³ USDA-ARS, Salinas, CA	3:45	**Liquid separated dairy manure in a sugarbeet rotation- Melissa Wilson, University of Minnesota
11:15	Management of Cercospora leaf spot: why tank-mixing is important? AUSTIN K. LIEN* ¹ and Ashok K. Chanda ^{1,2} ¹ University of Minnesota Northwest Research and Outreach Center, Crookston, MN; ² Department of Plant Pathology, University of Minnesota, St. Paul, MN.	1:45	Aphanomyces Root Rot of Sugarbeet: Current and Future Perspectives SAMANTHA RUDE* ² and Ashok K. Chanda ^{1,2} ¹ University of Minnesota Northwest Research and Outreach Center, Crookston, MN; ² Department of Plant Pathology, University of Minnesota, St. Paul, MN	4:00	Should we incur a loss by interseeding sugarbeet- Amitava Chatterjee, North Dakota State University
11:30	Managing Cercospora leaf spot using fungicides and host resistance. Mohamed F. R. Khan ^{1,2*} and Peter Hakk ² . ¹ Plant Pathology Department, North Dakota State University, Fargo, ND; ² University of Minnesota.	2:00	Incidence, Distribution, and Pathogenicity of Fungi Causing Root Rot on the Top Surface of Long-Term Outdoor Sugar Beet Storage Piles in Idaho- Carl Strausbaugh, USDA-ARS NWISRL	4:15	Integrating Cover Crop and Strip Tillage to Improve Soil Health Update. *Jodi DeJong-Hughes, University of Minnesota
11:45	Dr. Dexter's Scholarship Award and Distinguished Service Award- Mr. Eric Erdman and Thompson – Awards ceremony 12:00 – 12:30 Lunch	2:15	Characterizing the interactions of Rhizoctonia solani with sugar beet- Kimberly Webb, USDA-ARS		
12:30	The potential of managing <i>C. beticola</i> by using cultivar mixtures. Peter Hakk ^{1*} and Mohamed F. R. Khan ² . ¹ Plant Pathology Department, North Dakota State University, Fargo, ND; ² University of Minnesota.	2:30	Alternaria and Cercospora leaf spot, comparing an established and emerging issue. *Linda Hanson, USDA		
12:45	Role of adjuvants with fungicides under simulated rainfall at controlling <i>C. beticola</i> in sugarbeet. Md. Z. R. Bhuiyan ^{1*} and Mohamed F. R. Khan ² . ¹ Plant Pathology Department, North Dakota State University, Fargo, ND; ² University of Minnesota.	2:45	BREAK		
1:00	Protection of sugarbeet seedlings from BNYVV using double-stranded RNA technology. *John J. Weiland and Melvin D. Bolton.	3:00	** Impact of insecticide/fungicide/starter fertilizer combinations on root maggot control and yield. Jacob J. Rikhus* and Mark A. Boetel. Department of Entomology, NDSU, Fargo.	Feb. 9 th	Minn-Dak Virtual Growers Seminar
		3:15	** Evaluation of experimental and newly registered insecticides for root maggot control & the 2021 forecast. Mark A. Boetel* and Jacob J. Rikhus. Department of Entomology, NDSU, Fargo.	Feb. 10 th	Grafton and Grand Forks Virtual Growers Seminar
				Feb. 11 th	Fargo Virtual Growers Seminar
					International Sugarbeet Institute Show Cancelled for 2021

2021 Virtual Growers Seminars

