

1:30 **Evaluating the addition of adjuvants to fungicides for reducing disease severity caused by *C. beticola* and increasing sugarbeet yield and quality. Mr. M. Z. R. Bhuiyan*; Mr. Peter Hakk and Dr. Mohamed F. R. Khan. North Dakota State University.

1:45 ** Single-pass delivery of insecticide/ fungicide /fertilizer combinations: impacts on root maggot control and yield. Mr. Jacob J. Rikhus* and Dr. Mark A. Boetel. Department of Entomology, NDSU, Fargo.

2:00 ** Chlorpyrifos is gone! How can we manage root maggots & how's the 2022 forecast look? Dr. Mark A. Boetel* and Jacob J. Rikhus. Department of Entomology, NDSU, Fargo.

Moderator – Mr. Mark Bloomquist, Research Director, Southern Minnesota Beet Sugar Cooperative.

2:15 Management of urea and urea sources for sugarbeet. Dr. Daniel Kaiser, University of Minnesota, St. Paul, MN.

2:30 **Liquid separated dairy manure in a sugarbeet rotation. Dr. Melissa Wilson, University of Minnesota, St. Paul, MN.

2:45 Understanding and managing plant pathogens causing postharvest losses in sugarbeet in North Dakota and Minnesota. Dr. Shyam Kandel USDA-ARS, Northern Crop Science Laboratory, Fargo, ND.

2:52 Progress towards an improved disease forecasting model for *Cercospora* leaf spot. Dr. Nathan Wyatt USDA-ARS, Northern Crop Science Laboratory, Fargo, ND.

Closing Remarks: Mohamed Khan

You are invited to a Zoom webinar.

When: Jan 11, 2022 07:00 AM Central Time
(US and Canada)

Topic: Sugarbeet Research Reporting Session

Please click the link below to join the webinar:

<https://ndsu.zoom.us/j/93238397659>

Area Growers Seminars

2022



Feb 1st Grand Forks Growers Seminar
Alerus Center

Feb. 3rd Fargo Growers Seminar
Holiday Inn Fargo, ND

Feb. 15th Minn-Dak Growers Seminar
Seed Facility, Wahpeton

Feb. 17th Grafton Growers Seminar
Frosty Fox, Grafton

March 16-17, 2022

International Sugarbeet Institute Show
Alerus Center Grand Forks, ND



52nd Annual

Sugarbeet Research Reporting Session



Tuesday January 11, 2022

****New Location****

West Fargo Conference Center
825 E Beaton Dr West Fargo ND 58078



(*) Author presenting the paper

(**) Partially funded by the Sugarbeet
Research and Education Board of
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Speakers should use 12 to 13 minutes for presentations and leave 2 to 3 minutes for questions.

Welcome – Dr. Greg Lardy, Dr. Michael Schmitt, and Mr. Eric Erdman

Moderator Dr. Mohamed Khan

Zoom Session

7:15 Coffee

7:30 Focus areas for sustainable intensification of the sugar beet crop in Sweden and Denmark. Dr. Desireé Brjesdotter, Managing Director, Nordic Beet Research, Holeby, Denmark.

7:45 Managing weeds in sugar beet in Denmark, Sweden and EU: successes and challenges. Dr. Anne Lisbet Hansen Project Manager Nordic Beet Research, Holeby, Denmark

8:00 Impact of canopy architecture on radiation use efficiency of sugar beet. Dr. Debbie Sparkes, Professor of Agronomy, Head of Agriculture and Environmental Sciences, University of Nottingham, UK

8:15 *Stemphylium beticola* the cause of yellow leaf spot in sugar beet. Dr. Bram Hanse, IRS, Netherlands.

8:30 Cell Wall Degrading Enzymes Originating from *Rhizoctonia solani* Increase Sugar Beet Root Damage in the Presence of *Leuconostoc mesenteroides*. Rajtilak Majumdar¹, Carl Strausbaugh¹, Paul Galewski¹, Rakesh Minocha², and Christopher Rogers¹
¹Northwest Irrigation and Soils Research, United States Department of Agriculture, Kimberly, ID, United States²Northern Research Station, USDA Forest Service, Durham, NH, United States

Moderator- Mr. Todd Geselius, Vice-President, Southern Minnesota Beet Sugar Cooperative

8:45 What we learnt about waterhemp control from soil residual herbicides in a season with limited rainfall. Thomas J. Peters^{**1}, Alexa L. Lystad², and David Mettler³, ¹Extension Sugarbeet Agronomist and Weed Control Specialist, ²Research Specialist, North Dakota State University and University of Minnesota, Fargo, ND, and ³Research Agronomist, Southern Minnesota Beet Sugar Cooperative, Renville, MN

9:00 Sugarbeet tolerance and waterhemp control from Ultra Blazer alone or in mixtures. Alexa L. Lystad^{**1}, Thomas J. Peters², Emma Burt³, and David Mettler⁴, ¹Research Specialist, ²Extension Sugarbeet Agronomist and Weed Control Specialist, North Dakota State University and University of Minnesota, Fargo, ND, ³Graduate Student, North Dakota State University, Wahpeton, ND, and ⁴Research Agronomist, Southern Minnesota Beet Sugar Cooperative, Renville, MN.

9:15 Results from the 2021 Ultra Blazer Section 18 Emergency Exemption in sugarbeet. Emma L. Burt^{**1}, Thomas J. Peters², David Mettler³, and Alexa Lystad⁴, ¹Graduate Student, North Dakota State University, Wahpeton, ND, ²Extension Sugarbeet Agronomist and Weed Control Specialist, North Dakota State University and University of Minnesota, Fargo, ND, ³Research Agronomist, Southern Minnesota Beet Sugar Cooperative, Renville, MN and ⁴Research Specialist, North Dakota State University and University of Minnesota, Fargo, ND.

9:30 Fall seeded cover crops for waterhemp suppression. Ryan M. Borgen¹, Thomas J. Peters², and Aaron Hoppe³, ¹Student, North Dakota State University, Fargo, ND, ²Extension Sugarbeet Agronomist and Weed Control Specialist, North Dakota State University and University of Minnesota, Fargo, ND and ³Graduate Student, North Dakota State University, Fargo, ND.

9:45 Strip vs. conventional tillage in sugarbeet. Aaron Hoppe¹, Thomas J. Peters², and Ryan Borgen³, ¹Graduate Student, North Dakota State University, Fargo, ND, ²Extension Sugarbeet Agronomist and Weed Control Specialist, North Dakota State University and University of Minnesota, Fargo, ND, and ³Student, North Dakota State University, Fargo, ND

10:00 BREAK.

Moderator: Dr. Mike Metzger, Vice President Agriculture & Research, Minn-Dak Farmers Cooperative

10:30 ****CRISPR-based next-generation diagnostic method development to evaluate *Beet necrotic yellow vein virus* causing rhizomania in sugarbeet.** Dr. Vanitharani Ramachandran, USDA-ARS, Northern Crop Science Laboratory, Fargo, ND.

10:45 Sensitivity of *Cercospora beticola* to Foliar fungicides in 2021. Gary Secor, Viviana-Rivera-Varas and Melvin Bolton. Presented by Dr. Mike Metzger.

11:00 ****Improving Sugarbeet Resistance to *Cercospora* Leaf Spot through GWAS and Doubled Haploid.** Dr. Chenggen Chu, USDA-ARS, Northern Crop Science Laboratory, Fargo, ND.

11:15 ****Factors Affecting *Cercospora beticola* Spore Germination.** Presented by Ms. Vivian Rivera-Varas. Co-author Dr. Gary Secor. Plant Pathology, North Dakota State University, Fargo.

11:30 ****Evaluating fungicides for controlling *Cercospora* leaf spot in sugarbeet with different levels of susceptibility to *C. beticola*.** Dr. Mohamed F. R. Khan^{1*} and Mr. Peter Hakk², ¹NDSU and University of Minnesota; ²North Dakota State University, Fargo, ND.

11:45 Sugarbeet Distinguished Service Awards & Dr. Alan Dexter Scholarship Award

**12:00 – 1:00 Lunch
Lunch Sponsored by Sumitomo Corporation**

Moderator: Mr. Joe Hastings, General Agronomist American Crystal Sugar Company

1:00 Importance of tank-mixing for management of *Cercospora* leaf spot in sugarbeet. Mr. Austin K. Lien^{*} and Dr. Ashok K. Chanda. University of Minnesota Northwest Research and Outreach Center, Crookston, MN & Department of Plant Pathology, St. Paul, MN

1:15 Management of *Rhizoctonia* diseases in sugarbeet Dr. Ashok K. Chanda^{*} and Mr. Austin Lien University of Minnesota Northwest Research and Outreach Center, Crookston, MN & Department of Plant Pathology, St. Paul, MN