Eastern Agricultural Research Center
Field Day

TUESDAY, JULY 17, 2018

agresearch.montana.edu/earc/
WELCOME

Welcome to the 38th Annual Field Day at your MSU Eastern Agricultural Research Center (EARC). The day will begin with a welcome and field tour of the MSU-EARC valley research site with a sponsored luncheon to follow.

We appreciate your attendance and participation in the EARC Field Day activities and welcome your questions and comments during and after the tour. The MSU Eastern Agricultural Research Center extends thanks to its staff members, the guest speakers, and everyone who contributed and participated in the Field Day activities.

SINCERE THANKS TO OUR SPONSORS:

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A special thanks to: Tim Fine, Richland County Extension Agent, for his cooperative efforts in planning the Field Day activities; The Depot for their assistance in procuring the food for the luncheon; and the USDA-ARS NPARL for all the benches, a trailer & tractor.

The MSU Montana Agricultural Experiment Station and Research Centers will provide accommodations for any known disability that may interfere with a person’s participation in any service, program or activity. If you require reasonable accommodations to participate in this event, we request 48 hours notice of the requested accommodations directly to Chengci Chen at (406) 433-2208 or cchen@montana.edu.
8:00 am – 9:00 am  Refreshments
9:00 am – 9:10 am  Welcome – Dr. Chengci Chen, MSU-EARC Superintendent

Tour Begins
9:15am – 9:30am  Dr. Chengci Chen  *Mung Bean and Adzuki Bean for Eastern Montana Irrigated System?*
Dr. Chen is a Research Agronomist at MSU-EARC who has the expertise in pulse crop variety evaluation and production technology. He will present the potential mung bean and adzuki bean cultivars for eastern Montana irrigated production system. He will also discuss about utilization and market of the mung bean and adzuki bean, the fertility and weed control issues, including herbicide application.

9:30am – 9:45am  Dr. Aziz Nilahyane  *Tillage and Nitrogen Affecting Sugarbeet Growth, Yield, and Quality.*
Dr. Nilahyane is a Postdoc Research Associate at MSU-EARC, who is conducting sugarbeet tillage and nitrogen research. He will present the performance of sugarbeet crop under no-till, strip tillage, and conventional tillage. He will also demonstrate the remote sensing technology for in-season nitrogen monitor, and potential to use NDVI for sugarbeet yield estimation.

9:45am – 10:00am  Mr. Duane Peters and Ms. Vanessa Pooch  *Update of Sugarbeet Industry and Current Production Issues.*
Mr. Peters is the Agriculture Manager at Sidney Sugars, Inc. He will update with the audience the current sugarbeet crops in the region and sugar industry in general. He will also discuss with the audience about the current challenges and opportunities the growers are facing regarding the sugarbeet production. Ms. Pooch will provide information about utilizing the spent lime.

10:00am – 10:15am  Dr. Luther Talbert  *Spring Wheat Breeding Challenges and Opportunities.*
Dr. Talbert is the Spring Wheat Breeder at MSU-Bozeman. He will talk to audience about the challenges and opportunities of spring wheat breeding, and the performance of the newly released spring wheat varieties.

10:15am-10:30am  Dr. Jamie Sherman  *Improving Barley for Montana.*
Dr. Jamie Sherman is the Barley Breeder at MSU-Bozeman. She will present to the audience the new improvement of barley varieties for malting and livestock feed, as well as the hulless barley for human consumption.
10:30am-10:45am  Dr. Mike Giroux  Durum Breeding and Low Cadmium Durum Varieties.
Dr. Mike Giroux is the Department Head and Plant Geneticist at MSU-Bozeman. He will update with the audience the durum breeding program in Bozeman and the low cadmium durum varieties and breeding lines.

10:45am – 11:00am  Dr. Yesuf Mohammed  Pea, Lentil, Chickpea, and Faba Bean Variety Evaluation and Production Issues under Irrigation.
Dr. Mohammed is a Research Scientist at MSU-EARC working on pulse crop variety evaluation and agronomy. He will present varietal performance and production issues of pea, lentil, chickpea, and faba bean under irrigation.

11:00am-11:15am  Dr. Frankie Crutcher  A Fusarium Head Blight Nursery to Screen Varietal Resistance and Fungicide Efficacy.
Dr. Crutcher is the Plant Pathologist at MSU-EARC. She will present to the audience her Fusarium Head Blight Nursery, and the potential resistant wheat, barley, and durum cultivars and the efficacy of fungicides in controlling Fusarium head blight.

11:15am-11:30am travel across the highway to east side of the farm.

11:30am -11:45am  Dr. Frankie Crutcher  Use of Seed and Foliar Fungicide Treatments for Control of Rhizoctonia Root Rot of Sugarbeet.
Dr. Crutcher is the Plant Pathologist at MSU-EARC. She will demonstrate the efficacy of seed and foliar application of fungicides in controlling Rhizoctonia root rot in sugarbeet.

11:45am – 12:15pm  Dr. Chengci Chen and Mr. Tim Fine  Soil Crusting, Acidification, Organic Matter Degradation Issues and Potential Benefits of No-till Sugarbeet.
Long-term tillage has resulted in soil organic matter degradation, soil erosion, and breakdown of water-stable soil aggregates which resulted in soil surface crusting. Loss of organic matter and excessive application of nitrogen fertilizer also resulted in soil acidification. Chengci Chen and Tim Fine will talk about the soil quality issues and potential benefits of no-till sugarbeet. Chengci Chen will also discuss about weed management and other challenges in no-till sugarbeet; Tim Fine will talk about testing soil acidity.

12:15pm – 12:35pm  Dr. Bart Stevens  Sugarbeet Tillage Systems
Dr. Bart Stevens is the Research Leader and Research Agronomist at USDA-ARS NPARD. He will update with the audience the tillage systems in the irrigated Cropping Systems study.

12:45pm – 1:45pm Lunch  Dr. Darrin Boss, Department Head of Research Centers Department will provide an update of the Research Centers Department and the Montana Agricultural Experiment Stations. Introduction of Ben Thomas, Director at the Montana Department of Agriculture, who will be in attendance with several of his staff.

2:00pm Field Day Program Adjourned
2018 WEATHER SUMMARY
MSU EASTERN AGRICULTURAL RESEARCH CENTER

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<tr>
<th>Precipitation – Inches</th>
<th>Temperature</th>
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<tbody>
<tr>
<td>Month</td>
<td>Irrigated</td>
</tr>
<tr>
<td>January</td>
<td>0.24</td>
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<tr>
<td>February</td>
<td>0.32</td>
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<tr>
<td>March</td>
<td>1.40</td>
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<tr>
<td>April</td>
<td>0.58</td>
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<td>May</td>
<td>3.63</td>
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<td>June</td>
<td>2.49</td>
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<td>July 1-15</td>
<td>0.98</td>
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<td>TOTAL</td>
<td>9.64</td>
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EASTERN AGRICULTURAL RESEARCH CENTER STAFF

- Chengci Chen: Supt./Cropping Systems/Agronomist
- Frankie Crutcher: Plant Pathologist
- Ron Brown: Farm Manager/Mechanic
- Amber Ferda: Research Associate
- Bill Franck: Post-Doctoral Research Assoc./Farm Mech.
- Becky Garza: Research Assistant
- Cherie’ Gatzke: Administrative Assistant
- Thomas Gross: Research Assistant
- Samantha Hoesel: Research Assistant
- Calla Kowatch-Carlson: Research Assistant
- Yesuf Mohammed: Research Scientist
- Abdelaziz Nilahyane: Post-Doctoral Research Assoc.
- Emily Reese: Research Assistant

SEASONAL ASSISTANTS:

- Miriam Backhaus: Carly Candee
- Aaron Entz: Charles Flynn
- Mariah Gullikson: Doug Hettich
- Bridger Larson: Red Lovec
- Chuck Lowman: Zixin “Andy” Ni
- Tanner Stevens: Yuepu “Zoe” Zhao

MSU EXTENSION-RICHLAND COUNTY STAFF

- Tim Fine: Agriculture Agent
- Patti Fjelstad: Administrative Assistant
- Josie Evenson: 4-H County Agent
- Carrie Krug: FCS Agent