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Department of Research Centers



Research Center News

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Message from Barry

Where does time go? Seems like only yesterday that we were planning research plots. The Department of Research Centers has started three new faculty in 2014: Dr. Zach Miller at the Western Agricultural Research Center, Dr. Jessica Torrion at the Northwestern Agricultural research Center and Dr. Kefyalew ("Kefy") Desta at the Northern Agricultural Research Center. These new faculty bring new expertise to the Department of Research Centers in the areas of horticulture/sustainable agriculture, crop physiology and cropping systems respectively.

Dr. Miller is the second Department of Research faculty with a (25%) formal extension appointment, with the other being Dr. Kent McVay at the Southern Agricultural Research Center. In addition to these faculty, we have offered the Animal Science position at the Northern Agricultural Research Center to a young scientist who will develop a field and lab research program focused on beef cattle cow/calf management strategies focusing on beef cattle reproductive endocrinology/physiology and their interactions with nutrient metabolism. We hope to have a letter of acceptance soon and look forward to starting this new scientist January 1, 2015.

The 2014 Field Days were inspiring. Thank you to all faculty and staff at each of the Research Centers for your hard work and so skillfully presenting a positive image and meaningful research to our Montana stakeholders.

Other not so happy news is that Dr. Olga Walsh has resigned to accept a position in Idaho and that Dr. Joyce Eckhoff, Superintendent at the Eastern Agricultural Research Station, has informed me that she will retire at the end of March of 2015. I have received verbal permission from Dean/Director Duff to begin searches for both of these positions and hope to have these filled before the 2015 crop season. The advisory committee at Western Triangle has asked that Olga's position be filled with a scientist that will develop an applied, field-oriented research program that focuses on nutrient management strategies integrated with agronomic practices that optimize economic and environmental sustainability of agricultural cropping systems with an emphasis on small grain production but that includes other crops raised in the Western Triangle region. I have not yet met with the advisory committee for the Eastern Agricultural Research Center in regard to refilling Dr. Eckhoff's position.

Sincerely,



DRC Faculty and Staff at Summer Conference held July 18 & 19th at the Northwestern ARC - Kalispell

Meet the New Vice President of Agriculture



Charles Boyer, the current dean of the Jordan College of Agricultural Sciences and Technology, has accepted the position to be MSU's new vice president of Agriculture and dean of the College of Agriculture. Dr. Boyer received a bachelor's degree in biology from Eastern Oregon University and his master's and PhD in genetics from the Pennsylvania State University.

Dr. Boyer will assume his new role December 15, 2014.



Safflower population in bloom August 10th

News from CARC

In July, new Postdoctoral Res. Assoc., Said Hamido, joined Dr. Chen's cropping systems team. In August, visiting scientists from China, Aifen Tao and Jian Xue, provided support to Dr. Chen's project by conducting wet lab analysis of plant tissue samples. Also in early August, Res. Asst. III, Ross Hauptman, left to teach second grade in Highwood. CARC currently has vacancies for two research associates and a farm operations manager.

Cooler June weather delayed the harvest of cereals, oilseed and pulse crops. Cereal grain yields were off by about 10% due to low precipitation levels in May and June whereas the pulse appeared

to experience less impact from the dry conditions. The oilseed yield were near average. Some of the winter wheat had extended ripening period caused by stand thinning due to January flooding, wire worms and cut worms. Thus not all of the Judith Basin area winter wheat was harvested when the August 21 to August 24 down pour of 5 to 7 inches of fell. The un-cut winter wheat experienced extensive sprout damage and associated drop in falling numbers. The late maturing safflower may have benefited from the mid August rain. Safflower harvest should start the last week in September.

News from SARC

The Southern Agriculture Research Center started off their summer as a host for President Cruzado's Summer Bus Tour. The day was enjoyed by all despite the dampening rain.

The Weed Science Program at SARC has seen a number of achievements. Dr. Jha's graduate student, Vipan Kumar, received a 1st Place Award in a poster contest and a 2nd Place

Award for an oral presentation at the Western Society Weed Science Meeting held in Colorado, March 2014. Additionally, Dr. Jha received the "Outstanding Reviewer Award" from the Weed Science Society of America (WSSA) at the National Annual Meeting in Vancouver, British Columbia, February, 2014. Dr. Jha is also the Co-PI of a \$500,000 USDA-NIFA grant, "Efficacy & Economics of

Cultural and Mechanical Weed Control Practices for Herbicide-Resistant Weed Management". This is a 4-year project in collaboration with the University of Wyoming and University of Nebraska-Lincoln.



President Waded Cruzado speaks during the SARC Field Day



Dr. Prashant Jha receiving an Outstanding Reviewer Award at the Weed Science Society of America annual meeting



Montana Grain Grower's Association is planning a listening session at the NWARC around October 13.

News from NWARC

Wet weather in the area has delayed harvest. New faculty member, Jessica Torrion, and her crew are busy processing grain samples, while Bob Stougaard still has half of his experiments standing (sort of) in the field.

NWARC Research Associate, Brooke Bohannon, will be traveling to Bozeman this month to receive the

Distinguished Staff Award during Homecoming. Please see page 6 for additional details.

The Montana Grain Growers Association is planning to have a listening session at the NWARC this fall. The tentative date is Monday, October 13th and will be held in the NWARC barn.

News from EARC

In April, EARC hired a new Research Associate in Plant Pathology, Sherry Turner. Sherry is an MSU graduate who studied with Dave Sands. She comes from the transgenic lab at McLaughlin Research Institute in Great Falls, is a dynamic worker and is interested in many subjects.

EARC completed their small grain harvest, but still have dry beans, chick peas, corn, safflower and sugarbeets to harvest. The dryland harvest went well and yields were good, but EARC will probably have damage to report on their small grain plots due to a lot of rain that occurred during that harvest.

In faculty news, Dr. Hans Schneider attended the International Institute for Sugarbeet Research in Dresden, Germany, in July and the American Phytopathological Society annual meeting in Minneapolis in August.



Presentation at the EARC Field Day



NARC braving the ALS Ice Bucket Challenge

The entire NARC crew also braved the ALS Ice Bucket Challenge on the coldest day in August. You can view the video on their Facebook page at: www.facebook.com/pages/Northern-Ag-Research-Center/214958618534976.

News from NARC

The Northern Ag Research Center is currently busy with their silage harvest & prepping for fall seeding. They had a busy summer visiting with candidates for their vacant Assistant Professor of Cropping Systems/Agronomy and Animal Science positions. They look forward to welcoming new faculty member, Kefyalew 'Kefy' Desta, who starts on October 1st as their new Assistant Professor of Cropping Systems and Agronomy.

News from WTARC



All WTARC faculty and staff took part in a Fire Safety Training program provided by MSU on March 26, 2014 and the webinar "Understanding and Navigating the U.S. Department of Education Grants System" provided by MSU Faculty Development and Office of Sponsored Programs on February 11, 2014.

Dr. Olga Walsh, Research Associate, Robin Christiaens, and PhD student, Arjun Pandey provided 10 professional presentations at the following regional, national and international meetings: the ASA/CSSA/SSSA International Annual Conference, Tampa, FL (November 3-6, 2013), the Great Plains Soil Fertility Conference, Denver, CO (March 3-5, 2014), the Western Crop Science Society Conference, Bozeman, MT (July 8-9, 2014), and the International Conference on Precision Agriculture, Sacramento, CA (July 20-23, 2014).

News from WARC

WARC had a busy, fast summer. New superintendent, Zach Miller, and Marty Knox had a cover crop project with 39 chickens, which were used to determine how much cover was necessary to raise market size meat birds. A new vineyard with wine grape variety trials, that was planted last spring, saw excellent results.

Research continued with pulse crop trials and buckwheat in several plots for cover crops, and all of the hay

that was cut got sold. The knapweed root weevil, cyphocleonus, is still abundant at WARC, so the local weed district and the Salmon-Challis Forest Service had staff and summer personnel in the plots a few times harvesting the weevils.

Lots of vegetables were harvested from the hoop houses and they are seeing the effect of row covers used inside the hoops. The WARC crew is also preparing to harvest potatoes towards the end of September.

Progress continues on the remodel of the fertilizer building for cold storage so that, combined with the purchase of a used walk-in cooler, they will be ready to go by next summer.



Marty Knox with a chicken from the cover crop project

MAES Field Days

MAES Field Days have been in existence since the early 1900's. and were started as a way to connect area farmers and ranchers to the latest ag research at our seven Ag Research Centers. This year faculty and staff at the Research Centers helped celebrate Extension Service's 100th Anniversary and preparation for

next year's events have already begun.

Jenny Lavey, the College of Agriculture's Communications Associate, compiled a slideshow of the 2014 Field Days; we invite you to take the time to view this beautiful compilation of what Field Days is about at <http://vimeo.com/103852768>.

Mark your Calendar!
The Northern Ag Research Center will be celebrating their 100th anniversary during their Field Day July 1, 2015!

Orange Wheat Blossom Midge Exploratory Trip

A team consisting of Dr. Gadi V.P. Reddy, Dr. Brian Thompson and Dan Picard from WTARC, and Brooke Bohannon from NWARC went on an exploratory trip to Alberta, Canada July 8-10th to capture parasitoids in efforts to help fight the Orange Wheat Blossom Midge. The team collaborated with Dr. Héctor A. Cárcamo and Scott Meers from Agriculture and Agri-Food Canada and collected 700 parasitoid wasps to introduce in and around Kalispell & Conrad on July 10th, 2014. They also assessed the establishment of the parasitoids and their rate of effectiveness in controlling the midge populations. The parasitoid release sites will serve as treated sites and non-parasitoid release sites will serve as control sites.

The current biological control team is considering an additional visit to Saskatchewan next year to collect another parasitoid, *Platygaster tuberosula*. In 1993 and 1994, Agriculture Canada and the International Institute of Biological Control in Delémont, Switzerland, collaborated to release *Platygaster tuberosula* into Saskatchewan to augment biological control of wheat midge. *Platygaster tuberosula* individuals were recovered at low numbers in follow-up monitoring programs in each of the last five years. In 2001, the parasitoid population density increased fivefold at the release site and showed signs of migrating into the surrounding area.

The team is confident that both parasitoids, if established, will

certainly have additive value in effectively controlling the midge populations in Montana. By doing adapting biological control methods for control of insect pests, the environmental benefits of reduced pesticide application will not only be an additional bonus, but will also help in beneficial parasitoids establishment.



The Orange Wheat Blossom Midge biological control team visits Alberta

Precision Nutrient Management

Olga Walsh and the Soil Nutrient Management team have continued to maintain the Precision Nutrient Management blog: <http://precision-ag-montana.blogspot.com/>. The blog has had almost 8,000 visitors & followers since March 2013. Since the ClustrMaps tracker has been installed in April 2014, visitors from over 48 countries across the world have accessed and browsed the blog.



Faculty Corner



New Superintendent at WARC

Zach Miller joined the WARC as their new superintendent in May 2014. Zach is an Assistant Professor of Horticulture from the Department of Plant Science and Plant Pathology at the Bozeman campus.

Welcome to the DRC, Dr. Miller!

Save the date!

Planning Conference to be held in Bozeman
February 17-18th, 2015!

NARC Assistant Professor of Cropping Systems/Agronomy

Kefyalew 'Kefy' Girma Desta is NARC's new small grains cropping systems specialist. His research and outreach goal is to develop and extend sustainable crop management practices for small grains based cropping systems in northern Great Plains region of USA. Specific areas include crop diversification and intensification, nutrient cycling, conservation tillage, and precision agriculture.



Kefyalew 'Kefy' Desta, new Assistant Professor of Cropping Systems/Agronomy at NARC

Kefyalew received a B.S. degree in plant science from Alemaya University, Ethiopia; a M.S. degree in crop science from University of Guelph, Ont. Canada; and a Ph.D. in soil science from Oklahoma State University, OK.

Welcome, Dr. Desta!

Staff Corner



Emi with 1st Place trophy

NARC Super Shooter

Emi Smith, Administrative Associate III at the Northern Ag Research Center, won the state trap shooting competition this past July in Great Falls.

Emi shot 194 out of 200 and she received a score of 97 out of 100 on both Saturday and Sunday to win the shoot.

Don't mess with the best!

NWARC Distinguished Staff

Brooke Bohannon, Research Associate at the Northwestern Ag Research Center, has been selected to receive a Montana State University Distinguished Staff Award for 2014.

The award recognizes a staff member from each college for distinguishing themselves in areas of leadership, achievement, outreach and/or meritorious service to their College. Brooke will be honored for her service to the College of Agriculture during Homecoming this September 26th. **Congratulations, Brooke!**



Brooke Bohannon, COA 2014 Distinguished Staff Award recipient