The goal of this quarterly newsletter is to serve the best interests of Idaho crop producers. Correspondence and inquiries should be addressed to: Olga Walsh, Cropping Systems Extension Specialist, Southwest Research and Extension Center, 29603 U of I Lane, Parma, ID 83660, Phone: (208)722-6701 (ext. 218), Fax: (208)722-6708, Email: owalsh@uidaho.edu

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Grazing and Organic Amendments Enhance Growth and Development of Biennial Winter Canola - New Publication

Crops & Soils Magazine

By Roger Nkoa Ondoua, Montana State University/Western Triangle Agricultural Research Center; Olga S. Walsh, Dept. of Plant, Soil, and Entomological Sciences, University of Idaho; and Kefyalew Desta, Montana State University, Northern Agricultural Research Center

To assess the potential of dual-purpose biennial winter canola production in Montana under irrigated conditions, we conducted an experiment at Montana State University’s Northern Agricultural Research Center (NARC) in Havre, MT. The objective was to compare the grain and hay yields of single-purpose (grain only) and dual-purpose (hay and grain) winter canola under seven organic and inorganic fertility treatments.

This article was prepared by the Western Region Nutrient Management Coordinating Committee (WERA-103)

Acknowledgments: We thank the USDA-NIFA for funding this work through the Western Sustainable Agriculture Research and Education Program.

Fig. 1. (a) cows grazing dual-purpose winter canola plots; (b) general view of single and dual-purpose plots after grazing; and (c) close-up of non-grazed and grazed plots separated by an electrical fence, Havre, MT. Credit: Dr. Roger Ondoua.
Fig. 2. Difference in ground cover by canola leaf residues in early spring 2015 (top picture, March 29) and resulting maturity difference on Aug. 20, 2015. Credit: Dr. Roger Ondoua.

UI Parma Cropping Systems Agronomy program has been collaborating on this project with Montana State University for the past 2 years. The cropping system was modified to reflect local Southern Idaho practices. Due to restrictions on growing canola in the area, we planted winter wheat instead of canola. Winer wheat followed fallow or fresh peas, which will enable us to determine the potential addition of nitrogen to the soil by the pea crop. Various rates and combinations of compost, manure and mineral fertilizers were also evaluated.

Winter wheat harvest of research plots at UI Parma in August 2017.
2016 Spring Wheat and Barley Variety Performance Tests

By Juliet Marshall, Extension Specialist Aberdeen, Kurt Schroeder, Extension Specialist Moscow, Olga Walsh, Extension Specialist Parma, Department of Plant, Soil and Entomological Sciences, University of Idaho

Idaho Grain Magazine

Public and private small grain breeding programs are not located in the Treasure Valley and their germplasm evaluations do not always include the specific environments of this area. Information is needed by the small grain industry to determine the local adaptability of new releases for this area.

Producers need to know which varieties are the most economical to produce and seed dealers need to know which varieties to increase and inventory. Breeders need to know how well their potential releases are adapted to Treasure Valley conditions in order to decide which advanced lines to release or market in the area.

Performance trials, supported by the Idaho Wheat Commission and Idaho Barley Commission, enable the testing of public and private varieties and advanced lines under the irrigated and dryland conditions of western Idaho.

As harvest is completed at all locations the variety performance tests are carried out, the University of Idaho cereal teams compile the data for Northern, South-East/South-Central, and South-West regions of the state and the report is published by the Idaho Grain Producers Association in the Idaho Grain Magazine.

UI Cropping Systems Agronomy team planting winter cereals nursery at Parma, ID, Fall 2016 (Left); winter cereals nursery, Parma, ID, August 2017.
Annually, a number of outreach events focused on cereal crops takes place each season throughout the state of Idaho. These include Cereal Schools (typically held in February), and Field Days (May through August). The traditional Cereal School locations include Burley, Pocatello, Idaho Falls, Ashton, and Preston. There will be an additional Cereal School held in Southwest Idaho this February, in Nampa/Caldwell. For more information, please contact Olga Walsh, UI Cropping Systems Agronomist at owalsh@uidaho.edu. Due to highly diverse cropping systems in the southwest part of the state, the UI Parma Cropping Systems group has been organizing annual Cropping Schools, which focused on all aspects of crop production such as irrigation, fertility, precision agriculture, insect pest management, weed control and others. To address the stakeholders’ needs and to expand the extension outreach efforts, we will now hold an annual SW Idaho Cereal School as well. We thank the Idaho Wheat and barley Commissions for their continuous support of our educational activities!

UI Parma Welcomes New Postdoctoral Scientist

We are pleased to announce that Dr. Sanaz Shafian has joined the Cropping Systems Agronomy program at the UI Parma R&E Center. Sanaz received her BS degree (2005) in Surveying Engineering and MS degree in Remote Sensing at the Khaje Nasir Toosi University of Technology, Tehran, Iran. Sanaz also holds a PhD in Plant and
Soil Science, which he obtained at Texas Tech University, Lubbock, TX in 2014. Sanaz’s dissertation was on “Estimation of soil moisture status in the Texas High Plains using remote sensing”. She has spent 2 years working as a Postdoctoral Research Associate at the Texas A&M University. Sanaz is an excellent specialist in areas of remote sensing, precision agriculture, and Unmanned Aerial Systems and has extensive experience I working with a wide variety of crops. Sanaz is an outstanding addition to our team and we are very happy to have such a great scientist joining us. Because we currently have several research and extension projects focused on precision ag and remote sensing, Sanaz is definitely a great fit for our program.

The Western Society of Crop Science Annual Meeting

The annual Western Society of Crop Science Annual Meeting was hosted by the UI Parma Cropping Systems Agronomy team June 6-7, 2017. The Western Society of Crop Science comprises the states and provinces of Alaska, Alberta, Arizona, American Samoa, Baja California, Baja California Sur, British Columbia, California, Chihuahua, Colima, Colorado, Durango, Guam, Hawaii, Idaho, Jalisco, Montana, Nayarit, Nevada, New Mexico, Northwest Territories, Oregon, Saskatchewan, Sinaloa, Sonora, Utah, Washington, Wyoming and Yukon Territory. The meeting was an opportunity to network with colleagues and students from around the West and exchange scientific information. The theme of the 2017 WSCS meeting was the same as that of 2017 ASA/CSSA Annual Meetings, “Managing Global Resources for a Secure Future”.

James Woodhall, UI Plant Pathologist, presents an automatic spore sampler used to monitor plant disease incurrence (left), and Olga Walsh, UI Agronomist, discusses the way the Unmanned Aerial Vehicles are used in cereal crops research in Idaho (right) during the WSCS Field Tour.
The meeting began with a tour on Tuesday morning (June 6th) to highlight sites of agricultural significance in southwest Idaho. The tour began at the University of Idaho Parma Research and Extension Center where we examined field experiments in beans, cereals, corn, cover crops, potatoes, and sugarbeets. Next, we traveled to Obendorf Hop Yard to tour the largest hop producer in Idaho and discuss hop management and marketing. Then the group then toured Western Laboratories, a commercial laboratory for testing soils, plants, nematodes, plant diseases, manures, feed, and water. They are also the world’s largest potato and onion testing laboratory. The final stop was Watson’s Packing Co., an onion growing, packing, and shipping company that is one of the oldest family owned and operated businesses in the produce industry.

Every year, the WSCS presents the A.K. Dobrenz Student Paper Awards with a cash award for the three best student oral presentations at its Society meetings. The student winners receive $200 (1st place), $175 (2nd place), and $150 (3rd place) awards. The 1st place winner also receives a $500 travel stipend to attend the CSSA International Annual Meetings. The A.K. Dobrenz Graduate Student Awards were formally named in 1997. Dr. Dobrenz was a Professor at the University of Arizona, an early participant in the meetings, and an avid supporter of graduate student participation at the WSCS meetings.

Earl Creech (Past President), Olga Walsh (2018-19 President-elect), Mark Marsalis (2018-19 President) with 2017 student award winners: 1st Place: Emma Jobson, Montana State University, 2nd Place: Jacob Briscoe, Utah State University, and 3rd Place: Michael Deakin, Utah State University.

UI Parma Field Day

A station-wide Field Day was held at Parma R&E Center on June 21, 2017. The event attracted over 80 attendees including researchers, growers, students, crop consultants, and industry representatives. The field day featured four tours. The first
tour focused on agronomy, water and nutrient management, and insect pest control in beans, onions, alfalfa seed. The second tour was dedicated to precision agriculture and nutrient evaluations and pest management in wheat, potatoes, and hops. The third was a tour of the orchard (fruit trees and grapes), and the fourth tours gave an overview of plant disease diagnostics and control and pest control (nematology). USDA-ARS Research Food Technologist, Jungmin Lee, has also presented on the natural phytochemical content of foods.

UI Parma R&E Center faculty and staff, 2017 Field Day.

Jim Barbour, UI IPM Specialist, and Parma Superintendent, discusses the issue of protecting pollinators while being able to treat high-value crops such as alfalfa.
Cathy Wilson, Director of Research Collaboration, Idaho Wheat Commission, gives an update on IWC activities.

Research Technician Position Open at UI Parma!

A Research Technician position will be open in the next couple of weeks in the UI Parma Cropping Systems Agronomy program led by Olga Walsh. The position will be posted on the University of Idaho Career Opportunities web page. For more information, please contact Olga Walsh UI Cropping Systems Agronomist at owalsh@uidaho.edu. Our program is focusing on improving water and nutrient use efficiency for cropping systems important to Idaho agricultural industry.

PhD Student Assistantship Available at UI Parma!

A Graduate Research Assistantship is available for a PhD student at the University of Idaho, Southwestern Research & Extension Center, Parma, ID. The assistantship is in the Cropping Systems Agronomy program lead by Dr. Olga Walsh. The research focus is development of sensor-based methodologies and cultural practices for improved water and nutrient use efficiency in various crops. The application deadline is February 2018 and anticipated start time is SUMMER or FALL 2018. The student is expected to work full-time, 40 hours a week on various field and lab assignments specifically related to the student’s dissertation project, as well as assist in other research and extension projects lead by the Cropping Systems Agronomy program. Salary: $28,350 per year. The student is expected to work through breaks unless given a permission of the major professor to take a vacation. The student must maintain student health insurance either through the university or through an outside vendor policy. In addition, the student is expected to work full-time, 40 hours a week as a TH employee with the Cropping Systems Agronomy team during the summer semesters. As a TH employee, the student will be paid on hourly basis for summer semester at the rate of $12.00 per hour.
TO APPLY, please email a single pdf file containing: 1) letter of application detailing how you meet each of the required and/or preferred qualifications, 2) CV, 3) transcripts, and 4) contact information of three professional references to: Dr. Olga Walsh at owalsh@uidaho.edu.

Please visit http://www.uidaho.edu/cogs/ for admission protocols, and the departmental and college deadlines.

REQUIRED: 1) MS degree in Agronomy, Soil Science, Soil Fertility or closely related field 2) Excellent verbal and written communication skills 3) Strong interest in agriculture 4) Drive, focus, excellent work ethic, and ability to lead their research project 5) Experience and strong interest in conducting applied field research

PREFERRED: 1) Experience with precision agriculture tools and methodologies such as crop sensors and UAVs 2) Previous extension/outreach experience, working with ag producers 3) Experience with farm field research equipment

Additional Salary Information: Total value of the assistantship, including stipend, fee waiver and additional compensation = $42,355.40.

Upcoming Extension Publications


  In order to make proper conclusions, the experiments must be appropriately set-up, and the scientific method must be followed. This publication provides basic information required to conduct a successful on-farm research project, including both agronomic and economic assessment, and suggestions on potential funding opportunities. The target audience includes growers interested in testing ag products or methods on their farms as well as ag consultants, university extension educators, and other specialists working with growers to make management recommendations.


  Sugar beets are one of the major raw materials for sugar manufactured in the U.S. Idaho - one of eleven U.S. sugar beet producing states - ranks second nationally in production of sugar beets. This guide contains updated recommendations for fertilizer applications needed to achieve optimum sugar beet yields, based on the most current information available, information on farming practices that impact nutrient availability. It also provides suggestions on how to improve nutrient use efficiency and lower input costs for a sugar beet cropping system.