



HERMISTON AGRICULTURAL RESEARCH & EXTENSION CENTER

From the Director

By Philip B. Hamm

Happy New Year!! Another year has gone by with its successes and challenges. I hope you had more successes!!

During December, HAREC's newest building was completed; our 6th greenhouse. This facility will be shared between Dr. Sagar Sathuvalli, potato breeder and Dr. Ray Qin, Extension Agronomist.



The facility, erected by the construction crew from the Port of Morrow was a donation in support of the needed facilities to aid faculty & their programs at HAREC. When

faculty are successful in their respective programs, new important information has been gained and transferred to assist our stakeholders.

In January a new autoclave will be installed in the Horneck Building. An autoclave is a necessary "sterilizer" that will support the work of our plant pathologist, Dr. Ken Frost, potato breeder, Dr. Sagar Sathuvalli, and our molecular biologist, Dr. Aymeric Goyer.

Each of these scientist share the tissue culture room located in this building. This used unit, which cost about \$50K with installation, will help eliminate untimely delays if the existing autoclave located in the pathology laboratory requires repair.

The new Dean of the College of Agricultural Science, Dr. Alan Sams, and Associate Dean, Dan Edge, will visit HAREC in late January to meet with faculty, staff & the HAREC

Pivotal Moments

A Quarterly Newsletter for Friends of HAREC



WINTER 2019

Advisory Board. Central to their discussion will be a replacement upon my retirement and the related time line. I have given them a "summer" time-frame with some flexibility. We all will learn their plan at that time.

After reviewing the faculty's efforts in extension, research, grant funding and service for this past year, I can say it truly is a privilege to be the Director of a station with such accomplished faculty. Of course there are many other staff members; the office & field staff, research support people and graduate students, who all help make HAREC achieve such high outcomes.

I cannot thank all of you enough for your support both now & over the years. Please contact me to discuss any topic:
Philip.b.hamm@oregonstate.edu
or call (541)-567-8321.

Horticulture Research Aims to Increase Yields, Reduce Cost

By Scott Lukas
Assistant Professor
Horticulture

The HAREC horticulture program extends its best wishes for a happy and healthy 2019. It's been a busy year so far with preparations for the upcoming growing season.

This year the HAREC horticulture program will be expanding with the first full-time employee, which will bring much-needed support to the rapidly expanding program.

Last year, research focused on broccoli, onion, corn, watermelon, and saffron. The primary experiment was focused on optimizing water and nutrient use efficiency in onions irrigated with sub-surface drip irrigation.

Ultimately, this research could help the local onion industry experience the benefits of drip irrigation.

Designed to deliver water and nutrients directly to the root zone of the crop, drip irrigation can save water, reduce disease pressure, increase quality and yield, and reduce fertilizer costs and nitrate-leaching losses.

Preliminary data have indicated optimal flow rates that make the most efficient use of water, which also provide an irrigation wetting pattern conducive to sandy soil onion beds. Timing of irrigation is also important, of course, we don't

want our crops to be thirsty, but we also don't want them to be drowning.



This project has indicated some preliminary values of when we need to irrigate our onions, as well as a model to help visualize where water moves under the soil surface.

Reducing water use coupled with reducing nitrate leaching are two of the most fundamental challenges that all agriculture in this region face.

Water is a precious resource, the smarter we can be with it and the more precise we can be, the better.

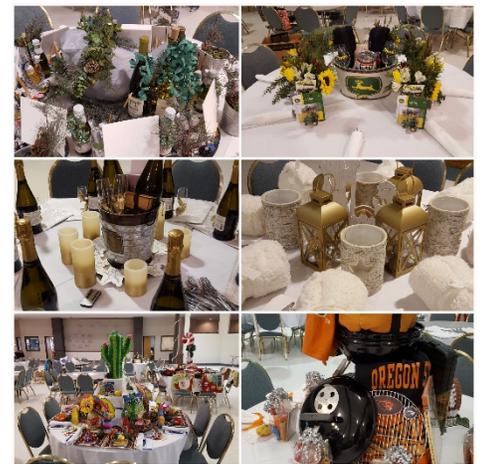
The second year of research on drip irrigation in onion crops will be expanded this summer with refined goals.

If you missed our presentations about drip irrigation at the 2018 Hermiston Farm Fair, feel free to stop by HAREC to learn more about this upcoming trial.

Enjoy the cold weather and "down-time" because before we know it, spring will be here and planting will be underway.

45th Hermiston Farm Fair Seminars & Tradeshow a Success!

As the Hermiston Farm Fair Seminars & Trade show marked its 45th run, hundreds of people attended the 59 presentations and two Core Programs. Sessions were offered over the three day session held at the Eastern Oregon Trade and Event Center in November.



A sold out crowd attended the catered banquet, held on Thursday of the event, where the centerpieces of each table are given to a lucky attendee.

Don't miss out this year, call our office at 541-567-8321 to get on the Farm Fair e-mail list.



Fruits and Veggies for Families

By Angie Treadwell, RD, LD
SNAP-Ed Coordinator

Through a partnership with the Umatilla Morrow Head Start, Inc. (UMCHS) WIC program, SNAP-Ed secured an \$85,000 grant from the Eastern Oregon Coordinated Care Organization's Umatilla County Community Benefit Reinvestment funds for the Fruits and Veggies for Families (FAVFF) pilot project.

Individuals who screen positive for targeted health and food security risk factors by WIC staff are enrolled in FAVFF and receive a monthly distribution of 40 to 50 pounds of fruits and vegetables tied to hands-on nutrition and cooking instruction for the entire family.



Each month, the SNAP Ed Coordinator develops and teaches 3-5 Food Hero family

cooking classes where participants prepare and taste 3-5 healthy recipes utilizing produce from monthly distributions.

From June 2018 through November 1st, 2018, 414 individuals from 137 families attended at least one class; many attended several.

Produce from the program is donated by local producers, gleaners and CAPECO and purchased from local small farms to support local agriculture and food systems.



This pilot project concludes at the end of January 2019 and in February, the team will compile and evaluate results with a focus on dissemination and replication.

At this point, the program appears likely receive funding for the FAVFF program, beginning in June 2019.

You can find great recipes at: <http://foodhero.org/recipes>

Building Juntos!

By Anna Browne
4-H Latino Outreach & Open Campus

A small but dedicated group of families completed the Juntos program at Riverside Jr./Sr. High School in Boardman in December.



Juntos is a 6-week college and career readiness program designed for parents and students to learn about the college-going process, financial aid, scholarships and more!

New sessions are coming to Stanfield and Lone in January and February 2019.

For more information, please contact Anna Browne at 541-567-8321 or anna.browne@oregonstate.edu.

Explore 4-H Opportunities:
<https://extension.oregonstate.edu/4h>



Flower Recommendations for Native Bees in Northeastern Oregon

By Sandy DeBano, Associate Professor
Riparian & Terrestrial Ecologist

Flowers that Bees Love - Flowers that are visited at a much higher rate than expected given their abundance in the environment.

- Thistles
- Asters
- Dandelions
- Clovers
- Goldenrod
- Monkeyflower
- Vetch
- Gumweed
- Oregon checkerbloom

Flowers that Bees Like - common in northeastern Oregon and frequently visited by native bees.

- Cinquefoils
- Buttercups
- Yarrow
- Penstemon
- Buckwheat
- Ragwort
- Mint

More Information:

The list is based on research reported in:
Roof, S.M., DeBano, S.J., M.M. Rowland, and S. Burrows. 2018. Associations Between Blooming Plants and their Bee Visitors in a Riparian Ecosystem in Eastern Oregon. Northwest Science 92(2): In press. More detailed information (included species information) is listed in that publication. To obtain a copy, contact Sandy.

Also, see the PNW Extension publication “Megachilid Bees in the Pacific Northwest: An Introduction” for more detailed information and additional planting references – available at: <https://catalog.extension.oregonstate.edu/pnw692>



Check out information on bees & much more at the OSU Extension Catalog. <https://catalog.extension.oregonstate.edu/>

Pivotal Moments A Quarterly Publication
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Hermiston Agricultural Research & Extension Center Mission Statement

To advance scientific knowledge in agriculture, natural resources and biofortified crops, and support and educate our diverse local clientele and community in the areas of irrigated agriculture, plant breeding, natural resources, human health and youth development.



Oregon State University
Hermiston Agricultural
Research and Extension Center

Become a HAREC Supporter!

Contact our office to find out how you can contribute to the research, programs and growth of HAREC.