

Integrated Pest Management 2019 Quarter 3 Newsletter

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[Hands-On Exchanges Keep Hop Industry Connection Strong](#)

Washington State IPM Coordinator [Doug Walsh](#) and field operations supervisor **Dan Groenendale** hosted beer brewers from across the U.S., the United Kingdom, and Canada at the WSU Prosser Irrigated Agriculture Research and Extension Center (WSU-IAREC) in early September during the peak of hop harvest. Brewers came together to **evaluate a wide variety of hops** using multiple methods including the tried-and-true “rub and sniff,” crushing hop cones in their palms and getting a close-up whiff. Brewers’ scores help determine which varieties get planted into larger plots this winter for use in pilot brews in the coming year and beyond. Of the 570 female and 230 male genotypes in the WSU-USDA **hop germplasm repository** at WSU-IAREC, >120 could be made commercially available in just a few years.

In another example of strong partnership with industry stakeholders, several members of **Anheuser-Busch Brewers Collective**, in conjunction with attending a dry hopping summit in Kennewick earlier this year, came to WSU-IAREC and spent a day refurbishing the Walsh team's Wolf hop picker. Special thanks to Don Allenberg and Nick Johnson from **Elk Mountain Farms** and the other A-B group members who made these repairs.



Oodles of Onion Outreach

Regional Vegetable Specialist and Benton-Franklin Extension Agent [Tim Waters](#) teamed up with Grant-Adams Extension Agent **Carrie Wohleb** to present the [WSU Extension Onion Field Day](#) on August 29. The event also marked the 35th annual [Onion Cultivar Demonstration / Evaluation](#), where the 140 event attendees had the opportunity to compare and contrast 47 onion cultivars from 7 different seed companies under Columbia Basin growing conditions. Research presentations included:

- Iris Yellow Spot Virus Management
- Onion Entomology
- [Plant Pest Diagnostic Clinic](#)
- *Onion Alerts* newsletter
- Tools for Combatting Bacterial Rots

On September 19, Waters coordinated a tour of [Brent Harley Farms'](#) state-of-the-art **onion packing plant** for attendees of the annual [WERA-1017](#) (Coordination of IPM Research and Extension/Educational Programs in the Western States and Pacific Basin Territories) meeting ag tour. Participants from Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, and Wyoming joined Doug Walsh's Washington State contingent to view this cutting-edge facility, which is part of the [24,000-acre Sunheaven Farms cooperative](#) in the Horse Heaven Hills.



Wandering the Wide World of Weeds

Small Grains Extension Specialist [Drew Lyon](#) joined WSU weed scientist **Ian Burke** to present the [2019 Weed Science Field Tour](#) on June 19. Participants gathered at the [Palouse Conservation Field Station](#) (PCFS) near Pullman. Topics discussed included:

- Broadleaf Weed Control in Pulse Crops
- Smooth Scouringrush Control
- Italian Ryegrass Control in Wheat
- Rush Skeletonweed Control in Fallow
- Ventenata Control in Conservation Reserve Program and Pasture Land

Stops included several research plots at PCFS as well as at the nearby [R.J. Cook Agronomy Farm](#) and concluded at the WSU Plant Pathology Building. The tour ran from 1:30 to 5:00 and was free to participants.



Progress in Primary Pear Pests

Tree Fruit IPM Extension Specialist [Betsy Beers](#) and her colleague **Louis Nottingham** visited the **primary pear growing regions** of Northern California in Lake and Mendocino counties this summer. While **pear**

psylla and codling moth are key pests Oregon and Washington pear orchards and were historically problematic in Northern California as well, they are no longer a large concern in these California orchards. It is thought that areawide IPM programs focusing on **biological control** and **mating disruption** have helped alleviate these pest problems. Beers and Nottingham visited orchards and nurseries throughout this pear-growing region to learn what kinds of **pest management and horticultural practices** are being used today and how they compare to the strategies in Washington.

In other recent outreach in pears, Beers' collaboration with USDA-ARS entomologist **Rodney Cooper** on the use of **erythritol against pear psylla** and other pests was discussed in an article, "[Sugar Substitute Keeps Pounds and Pests at Bay,](#)" in [Good Fruit Grower](#) magazine.



[New Video Will Train Landscape Professionals in Sustainable Practices](#)

Urban IPM Coordinator [Carrie Foss](#) has been working with WSU videographers Darrell Kilgore and Matt Ziegler this quarter on a new video in their urban IPM series. ***Best Management Practices for Sustainable Landscapes*** is a training video that explains how certain techniques, used by landscape professionals on a regular basis, result in healthier plants with fewer inputs such as pesticides and fertilizers. Based on tried-and-true methods and practices in current use by many local parks and campus landscape crews, the **six video chapters** cover soil care, plant selection, proper planting methods, using woodchip mulch and watering to reduce stress-related plant problems. Horticulturists **Christina Pfeiffer** and **Bess Bronstein** are the featured specialists. The video will be shown to over **2,000 landscape professionals** during the winter of 2020.



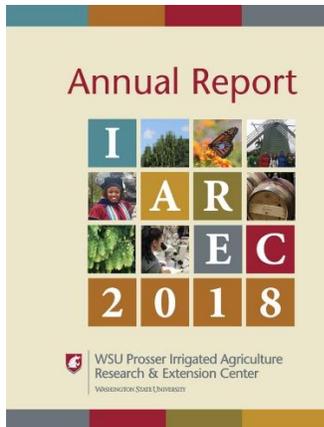
Top: Pinki Devi demonstrates healing chamber for grafted plants to WSU President Kirk Schultz and Noel Schultz. Middle: Three researchers stand in front of poster at the International Vegetable Grafting Symposium (from left, North Carolina State University's Penelope Perkins-Veazie, Pinki Devi, Carol Miles). Bottom: Pinki Devi shows grafted plants to visitors at field day event.

Grafting Gets Widespread Audience Exposure

Vegetable Horticulture specialist [Carol Miles](#) and her graduate students **Pinki Devi** and **Abigail Attavar** demonstrated and presented their work with vegetable grafting as a biological disease management strategy at a variety of events this quarter. Topics included the history, importance, and methods of grafting as an aid in management of diseases including verticillium wilt and fusarium wilt. Audiences, venues, and dates included:

- WSU President Kirk and Noel Schulz at Mount Vernon Northwestern Washington Research and Extension Center (NWREC) on May 16.
- Attendees of the NWREC annual grower field day on July 11.
- Research and extension colleagues and agricultural professionals at the International Society of Horticultural Science symposium in Charlotte, NC, on July 14-18, including making the following presentations:
 - *Increasing survival and efficacy of splice-grafted watermelon using sucrose and antitranspirant* (oral)
 - *Evaluation of eggplant grafted onto commercial Solanaceae rootstocks for resistance to Verticillium dahliae* (oral)
 - *Rootstock and plastic mulch effects on grafted watermelon flowering and fruit maturity* (poster)
 - *Screening World Vegetable Center eggplant and pepper rootstocks for resistance to verticillium wilt* (poster)
- Federal and state legislative staff members at NWREC on August 13.

Students in Dr. Travis Alexander's HORT 320 Olericulture class at NWREC on September 5.



WSU-IAREC Annual Report Released

Communications Specialist [Sally O'Neal](#) completed graphic design on the [WSU Irrigated Agriculture Research and Extension Center's 2018 Annual Report](#) this quarter. The report highlights:

- **19 faculty members** from **7 departments**
- Subject matter centers headquartered at WSU-IAREC
 - [AgWeatherNet](#)
 - [Center for Precision & Automated Agricultural Systems](#)
 - [Clean Plant Center Northwest](#)
- **USDA-ARS** and **WSDA** scientist affiliates housed at IAREC
- **39 graduate students**, including six 2018 graduates
- Snapshot of **grant funding** and selected **project highlights**
- Lists of IAREC **events** and faculty **publications**
- How IAREC supports the [WSU Grand Challenges](#)

The release of this year's report coincided with the 2019 celebration of [WSU-IAREC's Centennial](#) celebration. The center was established by legislative mandate in 1919 to serve the agricultural research needs of the **Yakima Valley** and lower **Columbia Basin**.