

# Hancock and Langlade Agricultural Research Stations & Lelah Starks Farm showcase current trials

By Joe Kertzman, managing editor, Badger Common'Tater

The Hancock Agricultural Research Station (HARS), Langlade Agricultural Research Station (LARS) and Lelah Starks Farm field days were held on beautiful Wisconsin summer afternoons, July 10, 17 and 31, respectively.

Large crowds descended upon the research stations looking for information on the latest potato and vegetable production research being conducted by University of Wisconsin (UW) scientists and collaborators to help growers continue raising quality crops efficiently and sustainably while realizing high yields.

The 412-acre Hancock station, located in the state's Central Sands potato production area, focuses on developing and evaluating ways to sustainably grow vegetables in the region's sandy, fast-draining soils above a high-water table.

On Thursday, July 10, the UW-Madison College of Agricultural and Life Sciences (CALS) hosted its annual HARS Field Day, drawing around 100 attendees, including

Above: UW-Madison Professor and Extension Specialist Dr. Russ Groves (right) and graduate student Claire Schloemer were all smiles at the LARS Field Day in Antigo, Wisconsin, as they gave an update on a U.S. Department of Agriculture Specialty Crop Research Initiative (SCRI) project exploring neonicotinoid alternatives.

Left: Attendees of the HARS Field Day, July 10, in Hancock, Wisconsin, ride in a covered trailer out to the fields so they can learn about current potato and vegetable production research conducted at the station.



16 BC'T September

growers, researchers and community members from across the state.

The event began with a welcome from Mike Peters, director of the ARS network, and Sen. Rachael Cabral-Guevara (R-District 19), who was honored with the Friend of Agriculture Award for her continued support of Wisconsin's agricultural research infrastructure.

Sen. Cabral-Guevara authored a budget motion to increase funding for UW–Madison's agricultural research stations by \$2 million to help upgrade facilities and equipment.

"I wasn't aware that this facility was as amazing and impressive as it is until I had the opportunity to come out here and hear from the scientists and the students," Cabral-Guevara said.

#### **GLOBAL IMPACTS**

"This isn't just something that benefits the students and

"What I love about field days is the chance to bring everyone together to see how research translates into real-world solutions for growers in the Central Sands and beyond."

# - Mike Peters,

director of the Wisconsin Agricultural Research Station (ARS) network

researchers, this is something that many of our community members utilize for their farms and their growth," she added. "It has impacts across the state, our country and the world."

The budget motion authored by Cabral-Guevara details the importance of the stations. The

agricultural research stations operated by UW are the research and development laboratories for Wisconsin's \$104 billion agricultural sector, hosting more than 1,350 studies annually.

Wisconsin farms deploy the

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#### Field Days Focus on Potato Research...

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During the LARS Field Day on July 17, Angel Zarda and Scott Houdak of Venture Ag Drones gave a spraying demonstration over a soybean field using blue dye so those in attendance could inspect the plants afterwards to evaluate coverage.

practices tested at these stations to improve their economic returns, protect natural resources and provide healthy, nutritious food for consumers.

"Our work here is driven by collaboration with faculty, industry partners, producers, students and policymakers," Peters said. "Sen. Cabral-Guevara is a key collaborator who is advocating for the research

and development arm of the State of Wisconsin."

After welcoming remarks from HARS Superintendent Troy Fishler and UW Storage Research Facility Manager Amber Walker, field day attendees boarded wagons for a guided tour of six field sites, where researchers presented updates on key initiatives.

Topics included potato diseases,

insect and weed management, potato breeding efforts to improve yield and quality, neonicotinoid and nitrate load losses from sandy soils, plus other water quality studies and precision agriculture technologies.

Extension Soil Scientist Dr. Matt Ruark gave a nitrogen optimization update, Dr. Jeffrey Endelman, UW Department of Plant and Agroecosystem Sciences, provided a potato breeding program update, and Dr. Russ Groves, UW-Entomology, presented "Insect Management in Potato and Processing Vegetables."

#### **NITRATE LOAD LOSSES**

Soil Science Specialist Francisco
Arriaga and graduate student Evan
Freed gave an overview on their
research project titled "Measuring
Neonicotinoid and Nitrate Load
Losses from Potato Production in
Sandy Soil," and Dr. Jed Colquhoun
and Associate Professor Steven
Hall, UW Department of Plant and
Agroecosystem Sciences, gave water
quality and weed management
research updates.

Dr. Amanda Gevens, UW Department of Plant Pathology, provided a potato disease research update,



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**Above: UW-Madison Soil Extension Specialist Francisco Arriaga presents** "Measuring Neonicotinoid and Nitrate Load **Losses from Potato Production in Sandy** Soil" at the HARS Field Day.

Right: UW-Extension Crops & Soils Regional **Educator Scott Reuss followed up a** presentation he gave on common weeds in Wisconsin potato and vegetable production agriculture with another showcase of weed varieties he potted up and brought to LARS.

and Yi Wang, associate professor in the UW Department of Plant and Agroecosystem Sciences, discussed "Using Precision Agriculture Technologies in Vegetable Crop Production."

Following the presentations, attendees enjoyed a social hour and grilled chicken dinner with sweet corn, baked potato and potato salad provided compliments of the Associate Division of the Wisconsin Potato & Vegetable Growers Association (WPVGA).

Brady Patoka of Jay-Mar, Inc. and his fellow Associate Division board members grilled the chicken, potatoes and sweet corn, the latter being courtesy of Flyte Family Farms.

The station's horticultural garden and Wisconsin Potato and Vegetable Storage Research Facility (SRF) were







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#### Field Days Focus on Potato Research...

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open for self-guided tours throughout the day.

Researchers use the SRF, which was erected in 2006 through a gift from the WPVGA, to study ways of curbing losses and improving the quality of stored potatoes.

#### **LARS FIELD DAY**

Farm Manager Kevin Gallenberg welcomed guests attending the LARS Field Day, July 17, and thanked local businesses and sponsors, including the Wisconsin Potato Industry Board, WPVGA and WPVGA Associate Division, Wisconsin Seed Potato Improvement Association, Insight FS, Swiderski Equipment, and Riesterer & Schnell.

Brooke Babler, assistant research program director for the Wisconsin Seed Potato Certification Program (WSPCP), gave an update on field inspections, Potato Virus Y detections, winter test changes for potato, direct tuber testing, and the UW Tissue Culture Lab moving back to the university campus.

Cropping Central agronomist and Pioneer representative Jason Culver discussed a soybean seed variety trial being conducted at LARS and using Nexta biologicals to enhance crop yield and resilience against environmental stressors.

UW-Extension Crops & Soils Regional Educator Scott Reuss followed up a presentation he gave last year on common weeds in Wisconsin potato and vegetable production agriculture with another showcase of weed varieties he potted up and brought to LARS this year.

Angel Zarda and Scott Houdak of Venture Ag Drones conducted a drone spraying demonstration over a soybean field using blue dye so

Top Left: Associate Professor Steven Hall, UW Department of Plant and Agroecosystem Sciences, gives water quality and weed management research updates during the HARS Field Day.

Top Right: Mike Peters (front right), Director of the Agricultural Research Station Network, honors Sen. Rachael Cabral-Guevara (front left) with the Friend of Agriculture Award for her continued support of Wisconsin's agricultural research infrastructure.



Under a light blue sky with wispy clouds, Dr. Maria Caraza-Harter, UW-Madison Department of Plant & Agroecosystem Sciences, gives a potato breeding program update during the LARS Field Day.

field day attendees could inspect the plants afterwards to evaluate coverage.

Dr. Maria Caraza-Harter, UW-Madison Department of Plant & Agroecosystem Science, provided a potato breeding program update, and Matthew Pereyra, a graduate student working in the Dr. Gevens Lab, UW Department of Plant Pathology, presented recent research and updates from the field.

Dr. Groves and Ph.D. student Claire Schloemer, UW Department of Entomology, gave an update on a U.S. Department of Agriculture Specialty Crop Research Institute project studying neonicotinoid alternatives for crop protection.

A reception with food and refreshments, sponsored by Insight FS and the WPVGA Associate Division, was held at Antigo's East City Park immediately following the LARS Field Day presentations.



#### **LELAH STARKS FARM**

Cody Bandoch, farm manager working for the Wisconsin Potato Coalition, welcomed guests to the Lelah Starks Farm in Rhinelander, July 31, and gave new equipment updates, including the purchase of a mini-tuber seeder, a cup seed planter, seed cutter, Lockwood harvester, sprayer and bulk potato trucks.

The Wisconsin Potato Coalition was formed in December 2022 in a partnership with UW-CALS to operate the Lelah Starks Farm starting in the spring of 2023.

The coalition, which is an equal partnership between Baginski Farms, J.W. Mattek and Sons, Schroeder Bros. Farms, and Wysocki Family Farms, aims to strengthen Wisconsin's potato industry through disease-free seed production and research support.

"When the Wisconsin Potato Coalition took over the Starks Farm,

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Middle: Dr. Jeffrey Endelman, UW Department of Plant and Agroecosystem Sciences, provides a potato breeding program update at the HARS Field Day.



### Field Days Focus on Potato Research...

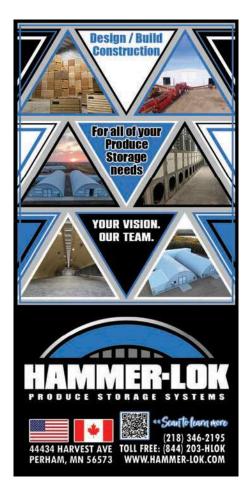
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the university was operating under monetary losses," Bandoch explained. "We increased E1 seed prices, efficiency in harvest and investment in infrastructure, and though we're still operating at a net loss, going forward, we'll be OK."

Babler was on hand to update attendees on the WSPCP, saying the first seed inspection is complete, with more Potato Virus Y (PVY) than anticipated coming off the winter test in Hawaii.

"We're hoping to get 95% emergence on 10-11 acres during our winter grow-out next year, with the rest of the testing done in the greenhouse so we can be ready to test for PVY and see it," she said.

"Three out of the four greenhouses at the state farm are in production and the fourth will be by August 14,"





Babler added. "The tubers are storing well. We have enough for spring 2026 and will hopefully have surplus."

#### **PVY PRESSURE**

PVY pressure remains a significant challenge, and the Wisconsin Potato Coalition has tightened up its own rule for replanting PVY lots to less than .25%, which is a higher standard than foundation status requirements.

The first stop during the wagon tours of the Lelah Starks Farm included a potato disease research update by Dr. Gevens, and an E1 field Above: Jay-Mar Inc. Agronomist Brady Patoka (shown) and his fellow WPVGA Associate Division board members grilled chicken, potatoes and sweet corn as part of the HARS Field day. Flyte Family Farms provided the early season sweet corn.

Bottom: Dr. Amanda Gevens, UW Department of Plant Pathology, provides a potato disease research update as part of the Lelah Starks Farm Field Day.

where Dr. Groves discussed insect management in potato production.

Becky Eddy, superintendent at the Rhinelander Agricultural Research Station (RARS), updated attendees







on potato breeding and variety developments, equipment upgrades and notable achievements, the latter including the fact that all clones entered for certification achieved that status this past year, and that 11,000 pounds of certified seed has been distributed throughout the United States and Canada.

"People are interested in our varieties," she said.

"We have been focused on breeding for russets and chipping varieties, with two new chip varieties entered into the international SNAC trials, both with PVY and common scab resistance," she said. "Currently at RARS, we have 144 varieties in Year 3 that have PVY resistance."

Such collaborations as those between RARS, the Wisconsin Seed Potato Improvement Association, CALS, WSPCP, the Wisconsin Potato Coalition and industry at large are an attempt to meet customer needs in Wisconsin.

They also allow CALS to continue operations of mini-tuber production to ultimately produce disease-free seed at an isolated location such as the Lelah Starks Farm.

"What I love about field days is the chance to bring everyone together

Left: Cropping Central agronomists and Pioneer representatives Joe Markgraf (left) and Jason Culver (right) discuss a soybean seed variety trial being conducted at LARS using Nexta biologicals to enhance crop yield and resilience against environmental stressors.

Right: At the Lelah Starks Farm, Becky Eddy, superintendent of the Rhinelander Agricultural Research Station (RARS), updated field day attendees on potato breeding and variety developments, equipment upgrades and notable achievements.

to see how research translates into real-world solutions for growers in the Central Sands and beyond," Peters says. "This is the Wisconsin Idea in action." BCT

