

fall 2022 newsletter

K-State Olathe Horticulture Research and Extension Center

Welcome to the K-State Olathe Horticulture Research and Extension Center's quarterly newsletter. To learn more about the Center, click [HERE](#) to be directed to the Center's web site.

Fruit & Vegetable Research Update

Cover crops were front-and-center this summer as more intensive vegetable research took a rest. There were tomato and pepper variety trials, as well as yellow squash grown as part of a occultation trial, so some vegetables were produced. Multiple individual and cover crop mixes were used on research plots, including organic buckwheat, foxtail millet-cowpeas, Viking 150 sorghum sudan grass-cowpeas, proso millet-cowpeas, black oil sunflower, black oil sunflower-sunn hemp-sudan grass, sunn hemp, teff, milo-soybean, cowpeas, and Summermax CC6. All the cover crops and vegetables were on display on August 2 for our annual Field Day where we welcomed 75 guests to learn about current research projects being conducted in whole or in part at the Center.



Mixed Cover Crops in haygrove tunnels in August 2022.



Haygrove tunnel cover crop termination in October 2022



Claire Barnhart

As summer turned to fall, we welcomed Graduate Student Claire Barnhart, Master's student in Urban Food Systems at K-State Olathe, who conducted some early autumn lettuce trials comparing various plastic weed barriers. Look for data from cover crops, variety trials, and lettuce trials to be released in the coming months. And if Claire looks familiar, it's because she worked at OHREC for a few summers on the Veggie Crew while she was an undergraduate. Welcome back, Claire.

Turfgrass Program Update

New Zoysiagrass Cultivar Coming Out

In 2022, after 10 years of research evaluation across multiple states in the transition zone, a new zoysiagrass cultivar (experimental name DALZ 1701) was released. A standard cultivar name for this will soon be available. Highlights of DALZ 1701:

- Freezing tolerance of DALZ 1701 is similar to Meyer and Innovation
- Exhibits superior heat tolerance than Meyer and has performed well in Dallas, TX
- Drought tolerance is better than Meyer
- Has dark green genetic color and better fall color retention than Meyer
- Exhibits superior tolerance to large patch, take-all patch, mites and hunting billbugs than Meyer



DALZ 1701 (left) and Meyer (right) after 30 days with only 1 inch of rainfall and no irrigation in July 2021 in Olathe, KS.

FARM to LAWN: Enhancing the Production, Establishment, and Marketability Success of Zoysiagrass Sod

K-State, Texas A&M AgriLife-Dallas, and Purdue University received a grant from the US Dept. of Agriculture (multi-state specialty crops block grant) to focus on production, establishment, and marketing of zoysiagrass sod. A primary goal of research at Olathe is to evaluate how "farm" practices, including grow-in practices at the sod producer, may influence the performance of sod after it is harvested and laid at a site (see photos below). Learn more information about this project here:

<https://dallas.tamu.edu/research/farm-to-lawn-zoysiagrass-sod-project>

And, if you're a Twitter follower, this may be of interest to you: @zoysiaresearch.



Three zoysia cultivars sprigged in June 2021 (left) and appearance of the same plot area in June 2022 (right) at the Olathe Horticulture Center. Grow-in is being influenced by mowing height and nitrogen rate, which could influence thatch accumulation and performance of newly laid sod (to be harvested in spring 2023).

Field Day Returns To Olathe Center in 2023



The 2022 field day was at the John C. Pair Horticulture Center in Haysville, KS. In 2023 we'll be in Olathe.

On August 3, 2023 the Kansas Turf and Ornamentals Field Day will be held at the Olathe Horticulture Research and Extension Center. At least 8 stops will be including in this year's field day with some highlights including: new zoysia cultivar release; weed, insect, and disease control; tall fescue and fine fescue variety trials; ornamental selection and management. In addition to K-State specialists, specialists from Texas A&M and Purdue are expected to be at field day this year. More details will be coming this spring. Mark your calendar!

2-Minute Turf Extension Videos from Olathe Horticulture Center

Watch a couple of videos related to turf management:

1. Discussion of the impact of aerification on thatch in zoysiagrass stand:
<https://blogs.k-state.edu/turf/two-minute-turf-extension-video-aerification-impacts>
2. The influence of fertilizer on weed encroachment:
<https://blogs.k-state.edu/turf/two-minute-turf-extension-video-impact-of-nitrogen-on-weed-encroachment/>

Resources for Turf and Landscape Information at K-State

If you're looking for information on managing turf and landscapes in Kansas, there are several resources and social media sites with which you should be familiar.

- K-State Turf and Landscape Blog: <https://blogs.k-state.edu/turf/>
- K-State Turf and Landscape Website: www.ksu.edu/turf
- Twitter: @KSUTURF
- Facebook: <https://www.facebook.com/KSUTurf>
- K-State Turf and Landscape Website: www.ksu.edu/turf

The website offers information on undergraduate education at K-State, extension articles, research reports, and much more.

Backyard Garden Update

Extension Master Gardeners (EMGs) completed a full growing season in the Backyard Garden (BYG) at full-strength – a first since 2019. With work days each Wednesday from March through mid-October, EMG volunteers logged 1,692 hours in the BYG this year. They donated approximately 3,200 pounds of produce from the BYG to local food pantries. Plans are well underway for June 18-22, 2023 when Johnson County hosts the International Master Gardeners Convention. The BYG is a tour stop for the Convention, so this growing season was a trial run in preparation for next summer. Planting plans and designs will be finalized over the winter, so look for the BYG to be extra beautiful next season – peaking in mid-June.

OHREC Update

New Center Vegetable Technician



Clifford Nichols

We welcome Clifford (Cliff) Nichols, Vegetable Technician, who joined the OHREC team in late August. Cliff is responsible for day-to-day management of all vegetable research projects, including production planning, seeding, grafting, transplanting, in-field management, harvesting, and data collection. He earned a Bachelor's degree in horticulture from Northwest Missouri State University in Maryville, MO.

Solar-Powered Pond Irrigation System Operational, Construction Begins on Outdoor Classroom



Solar Pumphouse nearing completion in July. The solar-powered pump will provide water for research plots by pumping from the holding pond. The pump also powers pond aerators.



Solar array constructed over the summer provides renewable power for the irrigation and aerator pumps to water vegetable and turf research plots and keep the holding pond water circulating.



An outdoor classroom is being constructed just south of the Backyard Garden.

Events/Visitors Return to OHREC



Horticulture PFT members learn about current turfgrass research from Dani McFadden (left in turquoise shirt), Ph.D. student, and Dr. Jack Fry, professor and Extension Turfgrass Specialist (far right in purple shirt).

KSRE Horticulture Program Focus Team members visited OHREC in June for a tour of turf and vegetable research projects and visit the Extension Master Gardeners Backyard Garden.

In September, OHREC hosted a Natural Resources/Prescribed Burn Training for Extension and Ag Professionals organized by the Great Plains Fire Science Exchange. The three-day event provided classroom instruction about fire science, natural resource management, and resources available to Extension professional. Highlight of the training was a hands-on, half-day prescribed burn allowing students to apply their new knowledge to a pasture burn.



Drew Ricketts, third from right, leads students in a controlled burn during Natural Resources Training at OHREC.



Dr. Cary Rivard leads NCR Administrators on a tour of OHREC research plots on October 18.

In October, OHREC hosted a group of North Central Region College of Agriculture Administrators who enjoyed a tour of research plots and the Backyard Garden.

K-STATE

Research and Extension

Kansas State University Agricultural Experiment Station
and Cooperative Extension Service

K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, J. Ernest Minton, Director.