



FRUIT & VEGETABLE RESEARCH UPDATE

Current Research Projects

Activity at OHC was picking up as the weather started to warm heading into Spring. But then COVID-19 hit accompanied by reduced activity and stay-at-home orders. Consequently, the Center has been closed to the public since March. Greenhouses, however, were full of seedlings and industrial hemp that are now being planted outdoors. K-State President Myers and Provost Taber have deemed research as mission critical, therefore planned research at OHC continues with modifications, such as physical distancing and enhanced sanitization, to protect students and staff. The Center has an obligation to balance the K-State College of Agriculture Mission with the safety and health of students, staff, and visitors. That mission is to develop human capital at the undergraduate and graduate levels to support agriculture, agriculturally related industries, natural resources management, education and research. In doing so, the College of Agriculture educates people for productive lives that contribute to agriculture, society and to the economic competitiveness of Kansas.



Master's student Amrita Mukherjee examines bare root strawberries the day they were planted in potting soil (left). The same strawberries were planted in a haygrove tunnel using different colors of plastic mulch as part of her research. (right) project.



L to R: Graduate student Tricia Jenkins examines tomato plants grown for research in the high tunnel. Lettuce trials are underway in the Rimol moveable high tunnel.

Growing Growers

Growing Growers Kansas City's season of workshops started in early February and continues through the summer and fall. Modifications have been made to accommodate COVID-19 protocols. For a complete list of workshops and how to be a virtual participant, visit the GG web site at: www.growinggrowers.org or email growers@ksu.edu. Graduate student Megan McManus, who is based at the Center, is coordinating GG this year as part of her master's program through [K-State Olathe's Urban Food Systems Program](#).

KSCGA

Kansas Specialty Crop Growers Association (KSCGA) held its first annual meeting since reorganization and name change (formerly Kansas Vegetable Growers Association) on February 28. Membership is around 80 farms and there's much more capacity for membership. Good news

is that KSCGA has a Specialty Crop Block Grant to provide scholarships for annual dues so there's absolutely no cost to join. Dr. Cary Rivard is the organization's treasurer and advisor. Johnson County Extension Horticulture Agent and former graduate student at the Olathe Horticulture Center, Zac Hoppenstedt, is secretary. The association's president is Gabe Spurgeon, specialty crop producer from Baldwin City and vice president is Brice Wiswell, specialty crop producer from Edgerton. Learn more about KSCGA and how to become a member at their web site: <https://www.kscga.org/>

ACTIVITIES AT OHC

COVID-19 Protocols

Procedures at OHC have been modified to comply with COVID-19 safety guidance. In addition to the Center being closed to the public, essential staff are following procedures to minimize potential spread of the virus. Staff are further instructed to not allow riders in vehicles driven to research fields and to sanitize vehicle interior surfaces daily. Safety protocol posters like the one below are posted throughout the center as reminders of our current safety procedures.

Keep KSU OHREC SAFE
Procedures for minimizing community spread of coronavirus

-  No handshaking
- Clean hands when entering building. Hand sanitizer located on front counter, breakroom, restrooms, lab, and headouse.
- Avoid touching your face. Cover coughs and sneezes.
- Disinfect surfaces (doorknobs, tables, desks, etc.) regularly
- Maintain physical distance of at least 6' from people
- Lab occupancy limited to ensure adequate distancing.

-  Center is closed to the public
- Use email or phone to communicate with each other and customers
- Use videoconferencing or teleconferencing for meetings

-  Do not share food
- Working and communal surfaces must be sterilized with 70% ethanol or bleach each morning. Sanitizer located in breakroom.

-  Only healthy personnel are allowed on premises
- Stay home if you feel sick or have a sick family member in your home

What we all can do now to decrease the spread of coronavirus

OHC Victory Gardens

News outlets such as CBS, The New York Times, and Farmer's Almanac have been reporting about a resurgence of Victory Gardens this year in response to COVID-19. At OHC, Paul Andersen, Vegetable Research Technician, has been busy creating Victory Gardens from surplus plants originally started for K-State Open House and leftover collections of seeds from previous research trials. Produce from the OHC Victory Gardens will be donated to [After the Harvest](#), a fruit and vegetable gleaner in Kansas City. The first OHC Victory Garden harvest yielded more

than 50 pounds of salad turnips from the Victory Garden located along the front sidewalk to the Center. A couple weeks later the second harvest consisted of more than 17 pounds of leafy greens harvested from container gardens. Container Victory Gardens will be on display at various locations on Center grounds.



Two types of Victory Gardens, created by Vegetable Research Technician Paul Andersen, are on display at the Center. Left is a garden along the front sidewalk to the Center. Right are container gardens full of vegetables that will be placed around the Center grounds for the summer.

Center Improvements

As reported last fall in this newsletter, the water retention pond for irrigating research plots was re-sealed and refilled. The seal worked. The pond held water all winter. It's been refilled from the evaporation and percolation that occurred over the winter and is now ready to supply water for research projects. The Center has also enlisted assistance from the [Johnson County Extension Master Naturalist Program](#) to determine how the pond and surrounding area could be used for educational purposes and wildlife preservation.

Another improvement visitors will notice when the Center opens up again is new pavement on the access road leading to the research plots. With the new smooth road also comes a speed limit, so please obey the posted 15 mph signs. Thanks.



Left: Holding pond restored Fall 2019 ready to supply water for the 2020 growing season.
Right: Freshly paved interior access road.

TURF UPDATE

Turf Research Continues Through Unusual Times

Turf research continues at Olathe despite difficult times of dealing with COVID-19. Projects that are presently being done include zoysiagrass and tall fescue cultivar trials sponsored by the National Turfgrass Evaluation Program. The United States Golf Association is sponsoring research on new zoysiagrass development, including genotypes that have improved tolerance to large patch, and fine-textured types that could potentially even fit on golf course putting greens. In addition, research is underway to evaluate the response of Innovation zoysiagrass to mowing height. This fall, new NTEP cultivar evaluations will be planted, including a fine fescue trial (at the Olathe Center) and creeping bentgrass putting green evaluation (at Shadow Glen Golf Club on a chipping green). The Olathe Horticulture Center is closed to the public at present – we can't wait until the time comes when you can visit and see some of the work that's being done!

Crabgrass Has Emerged!

Crabgrass emergence was evident this weekend – at least in Olathe, KS (picture below). This was on bare soil next to a paved sidewalk. It can take a few weeks longer for crabgrass to emerge within areas of thin turf due to cooler soil temperatures. So, on a lawn of acceptable quality (and no bare areas), you should still have time to get a preemergence herbicide out. Once you see crabgrass such as this emerging within a lawn, consider using a preemergence herbicide that has postemergence activity, such as dithiopyr (Dimension) or mesotrione (Tenacity). Of course, there are also a number of postemergence herbicides that can be used for crabgrass control as well. Turfgrass Weed Control for Professionals is a great publication that can help you determine the best strategies for weed control. Purchase the publication through this web site:

https://mdc.itap.purdue.edu/item.asp?Item_Number=TURF-100



Crabgrass seedlings, inside the white border above, were evident on April 19, 2020 in Olathe, KS.

Area Golf Course Supports Turfgrass Research

Shadow Glen Golf Club has allowed K-State to establish experimental zoysiagrasses on its driving range for evaluation. K-State has worked with Texas A&M and Purdue to identify large patch disease-tolerant zoysiagrass genotypes over the past seven years. The best 10 performers, selected out of thousands, are being evaluated in Manhattan, KS, West Lafayette, IN, and Dallas, TX, and at several golf courses across the country, including Shadow Glen. Grasses were planted as plugs last June and several were nearly fully covered by September 2019. Data will be collected periodically on performance of these grasses over the next several years. We are very grateful to Scott Johnson, golf course superintendent at Shadow Glen, for his willingness to assist us in this effort!



Scott Johnson, center, golf course superintendent at Shadow Glen Golf Club in Olathe, KS, stands in the area where ten experimental zoysiagrasses were planted in 2019. Ted Wilbur, owner of Sod Shop in Wichita, KS (left) has been a great cooperating sod producer, and is presently growing 'Innovation' zoysiagrass, which was released by K-State and Texas A&M several years ago. Dr. Ambika Chandra, right, is the turfgrass breeder at Texas A&M AgriLife Research-Dallas who has been the innovator in development of these new grasses.

Progress in Bermudagrass Breeding

This is the time of year when we hope all warm-season grasses green up uniformly with no signs of winter injury. K-State researchers have been working with Dr. Yanqi Wu, bermudagrass breeder at Oklahoma State University (OSU), for the past several years. Dr. Wu is consistently working to improve bermuda cold hardiness and release improved cultivars for the transition zone region of the U.S. 'Latitude 36' and 'Northbridge', a couple of high quality, vegetatively propagated bermudas, were released by OSU in 2010. These have been used extensively on sports fields and golf courses. However, there have been some winters in which significant winter injury occurred to these cultivars in Kansas. In the article linked below, you'll see that some of the new bermudas that are being evaluated by OSU and K-State have superior freezing tolerance to any of the existing cultivars in use. This likely means that in the next several years,

we'll have improved bermudas for our region that will be more likely to tolerate extremely cold winters.

Article here: <https://newprairiepress.org/cgi/viewcontent.cgi?article=7770&context=kaesrr>

BACKYARD GARDEN UPDATE

Because of restricted activity orders, the Backyard Garden is on hold through the summer. Wednesday Workdays will not happen until later in the season. Up-to-date information on the Johnson County Extension Master Gardener Program is available on the Johnson County Extension website: <https://www.johnson.k-state.edu/>

Before the activity restrictions, however, EMGs were actively gearing up for the 2020 growing season. They had record attendance at the pre-season safety training at the Olathe Horticulture Center. EMGs were also able to surprise Brian Boutte, OHC Farm Manager, who was named an honorary EMG at a ceremony in early March. Congratulations Brian.



Left: EMGs (March 4) refreshing their safety knowledge for the 2020 growing season. Right: Plaque presented to Brian Boutte, making him an Honorary Extension Master Gardener for all the work he does with and for the EMG Backyard Garden.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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