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NEWSLETTER OF THE DANFORTH CENTER

# Legacy Society

VOLUME 4, ISSUE 1: SPRING 2020

## **SOLVING A GROWING PROBLEM**

*How Danforth Center Researchers are Partnering to Stop a \$45M Threat.*

The world depends on rice, and Missouri grows a lot of it. The state's Bootheel serves as an ideal environment for rice production by large manufacturers and small farmers alike, but no matter where rice is grown, a common problem crops up.

All around the world, weedy rice (*Oryza sativa f. spontanea*) invades fields and steals water, space, and nutrients from the rice crop. Because of its close resemblance to actual rice, it is difficult for farmers to distinguish weedy rice from the real thing, leaving the imitator to reduce yields dramatically. Weedy rice costs rice farmers \$45 million a year in the United States alone.

This year, thanks to a grant from the National Science Foundation, researchers from the Danforth Center and Washington University in St. Louis are teaming up to find out what makes weedy rice so cunning. Using the unique 3D imaging approach he developed to see underground, Chris Topp, PhD, Danforth Center principal investigator, and his team have been able to study weedy rice roots while they were growing.

The next phase of the study will allow Topp and team to witness the competition between plants by imaging the crop and invader together in order to identify the specific traits that make weedy rice so successful. Scientists hope to use the knowledge gained about weedy rice to improve crop rice so that it can outcompete its imitator.

▲ *A rice farmer tends his field*

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## SOLVING A GROWING PROBLEM

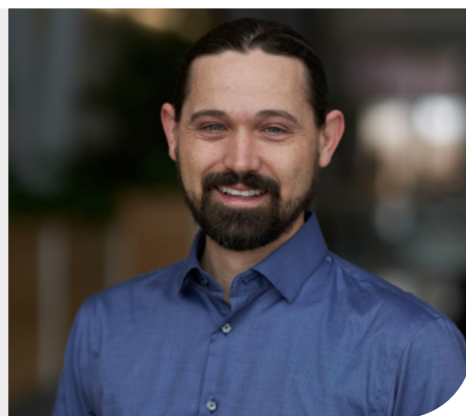
*How Danforth Center Researchers are Partnering to Stop a \$45M Threat.*

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serves as an ideal environment for rice production by large manufacturers and small farmers alike, but no matter where rice is grown, a common problem crops up.

*"This work has the potential to help farmers here in Missouri while also helping to feed millions of people around the globe."*

**Chris Topp, PhD,**  
*Danforth Center Principal Investigator*



### DONOR PROFILE:

**John & Cheryl Bohney,**  
*Legacy Society members*

## A GOOD CHALLENGE

Seeing the world can be eye-opening. It's a way to experience different cultures, meet new people, and explore unique locations. But it can also bring to light the aspects of life that Westerners often take for granted, like daily access to nutritious food.

"John and I both like to travel," says Cheryl Bohney, a retired IT auditor. "When you go other places in the world, you see that they don't have what we have in the U.S."

After learning about the Danforth Center's work

to promote food security at a Conversations event in 2005, John and Cheryl joined as Danforth Society members and have been annual givers ever since. They have also included the Danforth Center in their estate plans.

"The Danforth Center has the equipment, the talent, and the cutting-edge research to make a real difference," says John, a retired electronics Quality Assurance Representative for the federal government. "To feed the world is a good challenge."





## LEGACY SOCIETY LUNCHEON

On Monday, October 21, 2019, Dr. William H. Danforth, chairman emeritus, welcomed members of the Legacy Society to our annual appreciation luncheon. Members of the Legacy Society have planned an estate gift to the Danforth Center. President Jim Carrington greeted the group and Principal Investigator Sona Pandey presented on "Improving Plant Productivity in a Changing Environment."

If you are thinking about updating your will, please consider a gift to the Danforth Center.

**Call Joyce Pluhar  
314.587.1071**



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[danforthcenter.org](https://danforthcenter.org)

**WE CARE ABOUT YOU**

At this difficult time, the first priority of the Danforth Center is the health and safety of you, our families, and our community. We have implemented broad measures to help slow the spread of COVID-19: cancelling public events through May, working from home, moving almost all experiments to a maintenance/preservation mode.

We look forward to the time when the COVID-19 emergency is behind us—and we can welcome you back in person. For now, we all have a part to play in limiting spread of the virus, preventing an overload on our health care facilities, and minimizing human suffering.

**Thank you for your support!**

