

CFAES

MEETING OHIO'S WATER QUALITY CHALLENGES

CFAES faculty and staff help address water quality challenges through four core activities:



SCIENCE: Understanding Drivers and Processes of Water Quality Problems

Water quality problems usually result from the interactions of a complex set of factors, such as physical and chemical attributes of the soil and landscape, biological processes in aquatic ecosystems, weather patterns, human behaviors, and the built environment. Understanding the fundamental drivers and processes is critical for targeting solutions where they will be most effective. CFAES has some of the world's pre-eminent scientists whose work helps explain how and why water quality problems emerge. Over 140 of our faculty and staff report active research programs that address water quality, the largest concentration of expertise anywhere in Ohio.



INNOVATION: Creating Applied Solutions

CFAES faculty are dedicated to conducting useful research and developing applied solutions to practical problems. A number of our faculty work at the frontier of innovation in water quality—creating new technologies to prevent contaminants from entering waterways, tracking changes in water quality in real time, and cleaning water in an efficient and economical manner. Beyond hard technology, our scientists continue to develop data and information resources, decision-making tools, and software applications designed to allow managers to prevent water quality impairment before it occurs. CFAES also houses nationally recognized experts in the design and evaluation of optimal policies for achieving improved water quality at minimal cost to society.



COLLABORATION AND EXTENSION: *Partnering for Impact*

Ohio State University Extension is the outreach arm of CFAES. For more than 100 years, OSU Extension has partnered with local governments to provide all Ohioans with access to science-based information to better their lives, businesses, and communities. Our faculty and staff regularly partner with other colleges and universities; local and state government agencies; and farm, conservation, and industry groups to apply CFAES knowledge and expertise to solve local and statewide water quality issues.



EDUCATION: *Training the Future Workforce*

CFAES faculty and staff work in multiple ways to provide training and educational opportunities to students and Ohio residents around water quality topics. Our faculty offer more than 60 courses with water quality content across 10 majors to undergraduate and graduate students at all six of Ohio State's campuses. They also contribute to professional development opportunities to ensure that private- and public-sector employees have access to the latest scientific information about water quality.



COMING SOON In fall 2018, CFAES will launch an Ohio Water Quality Initiative to coordinate, support, and expand on the efforts described above. An eight-person task force is designing the initiative. The task force is using extensive input from faculty, staff, and diverse stakeholders to ensure that the initiative has grassroots support, is strategic in investments of time and money, and increases the impact and relevance of our work for all Ohio residents.



THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

waterquality.osu.edu

THE CORNERSTONE COLLEGE

The College of Food, Agricultural, and Environmental Sciences (CFAES) plays a critical role in carrying out the land-grant mission of The Ohio State University. For nearly 150 years, our faculty and staff have engaged in research, teaching, and Extension outreach to address real-world problems facing Ohio. We are an independent and objective source of scientific knowledge, and we turn scientific discoveries into practical applications that are made widely available to our state's residents.

CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information, visit cfaesdiversity.osu.edu. For an accessible format of this publication, visit cfaes.osu.edu/accessibility.