

Allelopathy. It's a word most of us can't even wrap our tongues around, not to mention define. But for semi-retired University of Oklahoma professor Elroy Rice, this exotic-sounding word has helped define a vigorous and distinguished career that spans half a century.

Rice, a David Ross Boyd professor emeritus of botany who joined OU's faculty in 1948, is the acknowledged world expert in allelopathy, which has been colorfully described as "the war of the plants." Plainly stated, allelopathy is survival of the fittest—the study of how some plants release chemicals to kill off insects and other competitors so they can gobble up nutrients in the soil.

Today, allelopathy is all the rage among scientists who are seeking natural pesticides and herbicides. But when Rice literally wrote the book on allelopathy in the early 1970s, he was among only a handful of researchers who believed in the future of the study.

"Dr. Rice was way ahead of his time," says Leonard Beevers, chairman of the OU department of botany and microbiology. "Some of his concepts are very applicable today. He was talking about natural pest control before almost anyone else."

Nine books and 100 scientific articles later, Rice still is leading the way toward a fuller understanding of the applications and effects of allelopathy.

"I've been trying to retire, but it's impossible," says Rice, a 78-year-old University of Central

Oklahoma, OU and University of Chicago alumnus whose accomplishments were recognized in June with two University of Chicago honors: the Medical and Biological Sciences Alumni Association Distinguished

Rice's ninth book, *Biological Control of Weeds and Plant Diseases*, was published by the University of Oklahoma Press. Professionals from as far away as New Zealand and India seek his counsel, and Rice continues to lecture in such nations as Spain, where he will share his knowledge with the International Society of Allelopathy next fall.

"Professor Rice's work has had a tremendous global impact, stimulating research in hundreds of laboratories," University of Chicago officials said when presenting Rice with his recent awards. "His leadership has transformed cutting-edge research into environmental solutions in countries around the world."

"Many plant scientists are still trained much like they were 100 years ago," Rice explains. "Most scientists still don't know that you can apply such microorganisms as algae and fungi to plants for the biological control of weeds and plant diseases. Synthetic chemicals have done more harm than good, in the long run. Allelopathic chemicals are just as effective as synthetic chemicals—or more so—and they're ready to go today."

"The U.S. Department of Agriculture has the mission of sustainable agriculture, and they could use our knowledge of allelopathy. I just know that we either have to accept allelopathy or we're never going to have sustainable agriculture. That's why I keep active."

But sustainable agriculture is not the only impetus that keeps Rice at work.

"It is a real challenge to try to pass information on to students," he says.



Robert Taylor

University of Oklahoma professor emeritus of botany Elroy Rice, a pioneer in the field of allelopathy, was honored by the University of Chicago in June with the Medical and Biological Sciences Alumni Association Distinguished Service Award and the Professional Achievement Citation.

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Rice's formal retirement from OU academic life came in 1981, but he maintains a carrel in the Bizzell Memorial Library where he spends half days keeping up on botany literature. Rice still receives many letters from high school and college students who are conducting research in the field he pioneered. This spring,



Robert Taylor

During his 43-year classroom career, Elroy Rice, right, supervised the work 30 doctoral candidates, whom he and his wife, Esther, consider to be “just like family.”

“The only way the world can develop is through education—it is absolutely the only way.”

And if education is the key to development, enthusiasm is the key to education.

“Enthusiasm is the heart of it, and it comes from enjoying what you’re

“When I was teaching, I was doing what I really wanted to do, and that’s all you can expect out of life.”

doing. I always made it clear to my students that I thought going to school was one of the most important things they were doing,” Rice says.

Rice’s enthusiasm and progressive teaching methods garnered the admiration of his fellow professors, many of whom chose to attend his botany courses and take tests side by side

with undergraduate and graduate students. Many sought to learn about Rice’s use of the “inquiry method,” which combines lectures, laboratory experiments and discussion in the classroom.

“The students learn just the way a scientist does, by doing, instead of having someone talk at you,” he says.

Most of today’s OU botany/microbiology faculty use this method, including chairman Beevers, who attended Rice’s classes and continues to “pass down the tradition” each day.

Another educator who learned the Rice tradition firsthand was OU President Emeritus George Lynn Cross. Not wanting to abandon the classroom completely during his presidency, Cross offered to teach a section of Rice’s plant kingdom course but insisted upon first

taking one of the professor’s courses himself. He later co-authored a book with Rice titled *A History of the Department of Botany and Microbiology at the University of Oklahoma: The First Hundred Years*.

“When I used to go lecture, people always asked me who was taking my classes. I’d say, ‘the president of the university,’ and they never believed me.”

Rice studied under Cross as an OU master’s student in botany and later was hired by Cross via Western Union telegram in 1948 after completing his doctorate at Chicago.

During the decades that followed at OU, Rice earned many teaching awards and had the honor of directing 30 doctoral candidates, who became close to him and his wife, Esther.

“They’re just like your family. My doctoral students still send us Christmas cards every year and come see us when they can. You run into some awfully, awfully fine people. They are the ones who are going to make the world better.”

Rice remembers without regret passing up numerous offers to serve as an administrator both at OU and other universities around the nation in favor of teaching his graduate students. And although he still gets inquiries from students wanting to study with him and knows that current OU President David L. Boren is welcoming many retired OU professors back to the classroom, Rice says those are invitations he will now decline in favor of adding further knowledge to the study of allelopathy.

“I taught for 43 years and loved every minute of it, but I’m doing what I want to do right now,” he says. “When I was teaching, I was doing what I really wanted to do, and that’s all you can expect out of life.”

—Anne Barajas