



Alice M. Boyle and helpers inspect fallen saguaro.

Woman Earned First Plant Pathology PhD

Professor Emerita Alice McLaughlin Boyle is a fragile-looking woman, but of formidable stamina.

She survived the rigors of completing the first doctoral degree granted by the University of Arizona Department of Plant Pathology. The year was 1947. She had worked toward the degree while an instructor in the department. Her advisor was J.G. Brown, also her supervisor as department head.

Boyle is highly regarded as a research scientist and as a determined fighter for professional equality with men—the latter at a time when there was no organization to support her, only confidence in her qualifications.

Boyle's services were much appreciated by people who admired the giant saguaro. The cactus was threatened by a serious degenerative disease. Working with Elizabeth Standring, she determined that the bacterium causing the soft rot of saguaro was carried from flower to flower by a small, night-flying moth. Her doctoral dissertation was one of the first definitive accounts on the cause and effects of this disease in cacti. Her work in discovering the way it is transmitted is considered one of the major achievements of the department by its faculty.

Boyle's accomplishments extended beyond research to teaching and service. She served as major professor to numerous graduate students and, in all, thousands of university students studied with her. Nurserymen and extension workers learned the science and art of plant disease control from her. She authored many scholarly articles on plant diseases. In 1964 Alice Boyle was named Tucson's Woman of the Year.



Stanley Was a Favorite Animal Scientist

For more than 60 years "Prof" E. B. Stanley was teacher, friend and mentor to Arizona cattlemen. He also was an innovative researcher who early recognized, tested and demonstrated principles of animal nutrition that are still practiced throughout the West.

Arriving in Yuma by train on a hot June day, wearing long johns, a blue serge suit, an overcoat and a hat, he almost turned around and went back to Montana. Instead, he bought more suitable clothes and traveled on to Tucson, where he found good friends and his life's work.

After three years as instructor and animal husbandman and earning his master's degree, Stanley was named acting head of the Department of Animal Husbandry in 1923 and professor and head in 1926. At the time there was only one other faculty member. In 1957 when he stepped down as department head, there were six faculty in the renamed Department of Animal Sciences.

In the 1940's, before there was national interest in the effects of hormone administration on cattle growth, Stanley conducted trials with stilbesterol and testosterone. He also demonstrated that bull calves achieve a higher rate of gain than steers but noted that his research was of no practical value "unless a market demand develops for this type of carcass." He was a realist in assessing his own work.

In pursuit of his doctorate, Stanley gathered the most extensive information ever compiled on water intake by cattle on the desert. *Nutrient Requirements of Cattle*, published by the National Research Council of the National Academy of Sciences, included his data.

With B. P. Cardon, W. J. Pistor and J. C. Nesbitt, Stanley demonstrated the use of salt to limit consumption of supplementary feeds by range livestock.

When Prof Stanley died in the summer of 1984, it seemed appropriate one of his students pay tribute to him at the memorial service. Marvin D. "Swede" Johnson, University of New Mexico vice president and former University of Arizona vice president, came from Albuquerque to join Prof's many friends in recognizing his long and devoted service to the college, the university, the cattle industry and the state.

College Rodeo Started at UA

Intercollegiate rodeo's birthplace is the University of Arizona. In 1938, the Aggie Club staged a rodeo that brought contestants from all over the state.

The second annual UA Rodeo in 1939 is considered the first intercollegiate rodeo ever held. Entrants from Arizona State University, Northern Arizona University, New Mexico, Texas A&M and Colorado A&M competed in the UA show.

The response was tremendous. Since its early days, the rodeo has been featured in full-length movies, newsreels and in 1946, Bob Hope broadcast the event on his radio show. By 1948 the event was so popular the first day was set aside for UA contestants only.

And so it continues today, distinguishing the University of Arizona as host to the nation's oldest and most popular intercollegiate rodeo event.

4-H Leader's Typing Lessons Grew

In 1968, Eleanor Linster, Sun City, just wanted to teach four or five young girls how to type. She believed it would be a useful skill for these children of farm workers living nearby. She asked for suggestions from Beryl Burt, who was then Maricopa County 4-H agent, and then recruited two volunteers and found eight girls from Dysart. But she couldn't find any typewriters . . . and the two volunteers backed out.

Eleanor didn't give up; she started the Dysart 4-H Community Club. "We started with knitting and crocheting projects first and added cooking the next year. Boys came into the club in 1975 with woodworking and entomology projects." By 1984, projects ranged from electricity to woodworking and entomology to beekeeping, but still included knitting and crocheting.

"Getting started was the hardest work — and the most fun," Eleanor said. "I begged for yarn, materials, needles, everything and anything I needed, from friends in Sun City and from churches. I asked stores for discounts, especially when we started sending youngsters to 4-H Camp and they needed clothes and sleeping bags. We had carport sales to help our finances."

Working hard didn't discourage the retirees; by the start of 1969, the Dysart club had 35 girls and 8 leaders. Roy Fritz, a retired entomologist living in Sun City, saw what the 4-H club was doing for girls in 1975 and decided boys ought to have the same opportunity. So, he started an entomology project and later added one in beekeeping. Many years he has had three separate clubs that each met weekly.

Caring about the club members was a characteristic the volunteer leaders shared, Beryl Burt said. A close personal relationship often grew; leaders kept track as the children grew older. Now, some are married and have children of their own.

The Dysart 4-H Community club has begun to give back some of the care lavished on them in the past. Those in the woodworking project made home repairs free of charge for elderly people in Dysart and El Mirage. They reframed windows, replaced broken windows and screens, fixed doors, repaired roofs for people who couldn't afford to hire the jobs done and didn't have the skills to do them.

A 4-H club can begin with one person's dream. But when that dream takes root and grows — well, look what happened in Dysart.



Ag Economist Issued Water Warning

Back in 1931 George W. Barr and some of his associates warned that when groundwater withdrawals exceed recharge, development of desert lands should cease. At that time Barr was the Agricultural Extension Service economist.

A quarter of a century later in 1956 Barr wrote "The day has passed when water can be considered a mere by-product of a watershed devoted chiefly to timber and forage. Water production is the most important use of land . . ."

At the time of this message Barr was head of the Department of Agricultural Economics.

Water and its management have continued to be main issues studied by agricultural economists through the years. Other concerns which have received considerable attention are international trade, range and livestock management, marketing and organizational structures.

Early research efforts in agricultural economics sometimes went beyond what might be viewed as traditional. A case in point is a project undertaken by Raymond Seltzer during the late 40's.

Working with the Arizona and California citrus industries he developed a cardboard box and plastic bag that ultimately revolutionized the shipping, handling and retail marketing of fresh citrus.

During the mid-50's the state was engaged in a battle to bring water to central Arizona from the Colorado River. Because of his intense interest in water, Barr was asked by the Salt River Project to study water production and distribution in Arizona. From this work came the notable Barr Report. To this day information from that document is still used by those involved with the Arizona water situation.

Other publications from the department have brought national acclaim, too. Each year *Arizona Agriculture* reported current crop and livestock budgets. The data served the outlook and planning needs for the agricultural community for many, many years. It has now been replaced by the *Annual Statistical Report* and *Agricultural Crop Budgets*.

Since its origin in 1937 the Department of Agricultural Economics has shown continued growth. In 1984 more than 600 students were enrolled in 27 courses offered by the department. As of 1984, 22 students had earned doctoral degrees and almost 200 had earned master's degrees. There are 30 to 40 students in residence every year.

Barr served as the first department head from 1937 to 1957. Raymond Seltzer followed and was head until 1961 when Jimmie S. Hillman took over. Hillman has continued in that capacity as of 1984.

Office of Arid Lands Joined College in 1981

The "new kid on the block" in the College of Agriculture is the Office of Arid Lands Studies. OALS was formally established as a division of the University in 1964 and joined the College of Agriculture in the Fall of 1981.

A research and information center that conducts interdisciplinary, multi-departmental university programs, OALS addresses local, state, national and international problems related to understanding, regenerating and developing Earth's arid lands. Included within the spectrum of OALS research activities are economic botany, remote sensing, natural resources development and management, desertification, energy, technology transfer, land use planning and technical and management assistance projects conducted for Indian tribes in the West.

The commitment of the college to arid lands research is evidenced by its dedication to meeting the needs of Arizona, by its interdisciplinary scholarship and by the leadership it has exhibited throughout the arid world in such fields as greenhouse agriculture, desert ecology, anthropology, medicine, water resources, crop production, plant breeding and economic botany.

Foreign students from arid lands constitute more than 50 percent of the foreign student enrollment at the university. Experience accumulated during nearly 100 years of research on arid soils, irrigation, climate, hydrology and native and introduced vegetation has been translated by the university into many mutually beneficial international projects.

From its first establishing grant, a \$250,000 funding from the Army Research Office, OALS has over the years contributed more than \$20 million in research grants and contracts.