

# Arkansas Horticulture News

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## James Moore, Founder of UA Fruit Breeding Program, Dies



James N. Moore's handiwork appears on every continent save Antarctica and he achieved some of the highest honors in his profession. Yet Moore remained firmly grounded — almost unassuming — but could not hide what his students and colleagues called greatness.

Moore was a giant. In 1964, he established the fruit breeding program within the University of Arkansas System Division of Agriculture that quickly became one of the most influential in the world.

Moore passed away on January 22 at age 85.

"Jim had a passion for horticulture and was a gifted teacher," said Mark Cochran, vice president-

agriculture and head of the University of Arkansas System Division of Agriculture. "He leaves a tremendous legacy, not only on farms, orchards and vineyards around the world, but also in the students he taught, who will carry on his work for decades to come."

"Dr. Moore was a giant in his profession, and he laid the foundation of the extremely successful fruit breeding program which is today one of our premier research programs," said Clarence Watson, director of the Arkansas Agricultural Experiment Station.

Born in Vilonia and raised in Plumerville, Moore served in the Air Force following high school and met his wife, Janita "Jan" Fitzgerald of Morrilton, soon after discharge. Encouraged by his mother, Moore attained an associate degree from Arkansas Tech University in 1954, followed in 1956 by a bachelor's degree in horticulture and in 1957, a master's in horticulture, both from the University of Arkansas.

Moore's next step was moving to the Garden State, earning his doctorate from Rutgers University in 1961. His time in New Jersey was pivotal. There he worked with Fred Hough, leader of Rutgers' fruit breeding program who had already achieved national renown within horticulture circles for his work on apples, peaches and strawberries. It was in working at Rutgers he met Jules Janick, now the James Troop Distinguished Professor of Horticulture at Purdue. It was the beginning of a collaboration that would last a lifetime.

"Jim was a great horticulturist and a great man and will be sorely missed," Janick said. "I will say that the work he started and is being continued by John Clark will continue to have a tremendous impact on American fruit production."

Clark, a Distinguished Professor of horticulture for the University of Arkansas System Division of Agriculture, inherited the fruit breeding program from Moore.

From 1961-63, Moore worked for the U.S. Agriculture Department at Beltsville, Maryland, as a fruit breeder.

"Jim loved to tell the story of his choosing to come back to Arkansas, leaving the USDA breeding position. He made his decision, and in late 1963 went in to tell his USDA boss he was moving home," Clark said.

He began his faculty appointment at Arkansas in 1964.

"His boss said, 'Jim, if you go back to Arkansas, you will never be heard from again!' Well, one can say that his coming back to Arkansas was one of the most important moves in small fruit breeding not only in Arkansas, but the region, nationally and internationally," Clark said. "And, he was definitely heard from again!"



### **MOORE'S WORK**

Moore developed a very broad breeding program that encompassed blackberries, strawberries, peaches, and grapes, and added blueberries later in his career. His achievements in fruit breeding were monumental, with more than 50 varieties released from his efforts. Among the most important were Cardinal strawberry, Navaho and Shawnee blackberries, Reliance and Mars grapes,

Bonfire peach, and Ozarkblue blueberry.

Although he retired from leadership of the Arkansas fruit breeding program at the end of 1996, his genetic contributions have continued to result in new varieties — with several being named for him including: the trademarked Prime-Jim blackberry, Norman blueberry, GoldJim peach, and Amore Sweet nectarine.

In further use of breeding materials from his career efforts, he and colleague Clark developed a grape with a unique flavor combination and much improved firm texture. This grape selection, although not adapted to the winter cold and summer rains of Arkansas, was used as a mother plant in a hybridization in table grape breeding in California and resulted in the new innovation known as "Cotton Candy TM." Now entering the national and international market, Cotton Candy TM is unlike any other table grape in flavor, with the flavor coming from the Arkansas parent.

"This and many other genetic improvements are clear reflections of Jim's dream of making major contributions to society in his genetic improvements," Clark said.

A prolific writer, Moore had more than 300 professional publications in his career. He was internationally known for his contribution as co-editor of a series of reference books on fruit breeding, including "Advances in Fruit Breeding" in 1975 and the trilogy series "Fruit Breeding" in 1996. Moore was an accomplished speaker, giving hundreds of presentations to grower and professional meetings in his career.

He served as president of the American Society for Horticultural Science and American Pomological Society as well as numerous department, Division of Agriculture and university committees.

Moore received many awards in his career. He was recognized as a distinguished professor at the University of Arkansas, its highest academic appointment. He also received the UA Alumni Association Outstanding Faculty Award, as well as being the first recipient of the University of Arkansas System Division of Agriculture Spitze Land Grant University Faculty Award for Excellence. He was a Fellow of the American Society for Horticultural Science and received the Wilder Medal from the American Pomological Society. He was inducted into the Arkansas Agriculture Hall of Fame as well as the Hall of Fame of the American Society for Horticultural Science.

## **LOVE OF TEACHING**

Yet for all his successes in the orchard and vineyard, his real love was in growing students. Moore taught at both the undergraduate and graduate levels, averaging six to 10 graduate students each year. He received high ratings from students, to whom he was both approachable and unassuming. As one outstanding student remarked, "We were being taught by a great man, yet you would never know it from his manner."

"He loved to work with students on their various research projects and inspire them to make a difference in their careers," Clark said. "This inspiration continues today as many of these continue in fruit research and expanding on the ideas he shared as an adviser."

Maria Bassols Raseira, a fruit breeder at Empresa Brasileira de Pesquisa Agropecuária in Brazil, studied with Moore as a master's student in 1972. It was her first time in the United States. "I was shy and scared," she said. Struggling with English and essay tests, she became discouraged. "I wanted to quit, but Dr. Moore wouldn't let me."

This was her first lesson from Moore: "'Never give up anything without a good fight, without trying your best.' And I guess that was also the last lesson he left to us, with his struggle during these last months: "'never giving up without a good fight'."

She would go on to work with Moore on her doctorate, and he would become "Uncle Moore" to her growing family, and Moore and his wife Jan would become her American family.

Ed Hellman, professor of viticulture and an extension specialist for Texas A&M AgriLife Extension and Texas Tech, studied at Arkansas from 1980-82. He recalled the many trips from Fayetteville to the Fruit Research Station near Clarksville through the winding roads of the Ozarks. After a day of evaluating fruit, "we then hurried back to Fayetteville for an evening intramural softball game; Jim was our star pitcher," he said. "I learned a lot from Jim on those Clarksville trips; his knowledge and work ethic were incredible. He was a consummate professional and an outstanding mentor."

Patrick Byers, regional horticulture specialist for the University of Missouri Extension Service, said of Moore: "He was an amazing professor, mentor, and supporter over the course of my career. He has also been an example to me as I work in Extension, as I could see his concern for and dedication to the fruit farmers of Arkansas and beyond."

"I'm convinced that his concern for his fellow man was what drove him to the level of excellence that he achieved," Byers said.

His devotion to students may have stemmed from his own experience with a gifted teacher. Daughter Pamela Millican of Arlington, Texas, tells the story of one of his high school teachers who wanted to ensure Moore continued his education after earning his associate's degree.

She told him, "'If you will sell me a cow, I will give you \$50.' That's how mom and dad were able to move to Fayetteville for him to get his bachelor's there. That's how poor they were. That \$50 made a difference."

Moore is preceded in death by his parents, Jimmy L. and Mittie (Terrell) Moore, brothers Vancil and Billy, sister Geraldine and granddaughter Lauren Millican.

Moore is survived by his wife, Jan Fitzgerald Moore, daughter Pam Millican (Scott) and grandchildren Ryan Tharp (Amy) and Hilary Millican, son David Moore (Diana) and grandchildren Chris Riley and Shawn Riley (Janie), great-grandchildren Elliott Tharp and Ethan Riley and several nieces and nephews, as well as his students, who became a part of his family.

A funeral was held Saturday, Jan. 28, at First Baptist Church in Fayetteville, with interment at Fairview Memorial Gardens, 1728 E. Mission Blvd.

Memorials may be made to the University of Arkansas Foundation for the James N. Moore Fellowship, c/o Department of Horticulture, 316 Plant Sciences Bldg., Fayetteville, AR 72701.

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**Congratulations to the Class of 2017!**  
**Undergraduates**

**Zachary Barr  
Olivia Caillouet  
Joseph Danton  
Loren Luther  
William Perritt  
Bennett Whitley**

**Cecil Barton  
Tyler Carr  
Olivia Hines  
Dayna Meeks  
Austin Pettit  
Madolyn Wynn**

**Russell Behr  
Denver Cooper  
Makynna Jorgensen  
Jessica Pendergraft  
Thomas Walton**

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## **Dr. Richardson Awarded The Spitze Land Grant University Faculty Award for Excellence and Best Twitter Feed**



Mike Richardson, a turfgrass scientist recognized for developing one of the best teaching and research programs in the country since joining the faculty in 1998, received the Spitze Land Grant University Faculty Award for Excellence at the Agriculture Awards Luncheon in January.

The Spitze Land Grant University Faculty Award for Excellence recognizes meritorious and comprehensive scholarly performance in the areas of academic responsibility unique to the Land Grant mission: teaching and advising, research and publication, extension and public service, and participation in professional associations and faculty governance. Tenured faculty members with at least 10 years of continuous service with the Dale Bumpers College of Agricultural, Food and Life Sciences or the Division of Agriculture are eligible for consideration.

Winning the Spitze Award just wasn't enough for Dr. Richardson. He went on to win the Best Twitter Feed at the Golf Industry Show which was held in early February. In addition to random 60 character thoughts, Dr. Richardson shares information about ongoing research. You can follow him on twitter @Arkansas Turf .





## Horticulture Students Win Awards at Southern ASHS Meeting; U of A Freshman Named President

Several horticulture students from the U of A's Dale Bumpers College of Agricultural, Food and Life Sciences won awards in competition at the recent Southern Region American Society for Horticultural Sciences meeting in Mobile, Alabama.

Melinda Yin (pictured right with Dr. John Clark), Kenneth Buck, Rhiannon De La Rosa, Claire Krofft, Mallory Martin and Perla Rocha combined for one first and two second-place awards.

Yin, a horticulture master's degree student, topped 16 other presenters to claim first place in the Norman Childers M.S. Graduate Student Paper Contest. Advised by Distinguished Professor John Clark, her oral presentation was on "Development of a Standardized Phenotyping Protocol for Blackberry and Evaluation of its Effectiveness in Characterizing Seedling Populations."

Rocha placed second in the J. Benton Storey Horticulture Judging Contest in the Individual Judging Fruit and Nut Crops category.

The U of A Horticulture Club, made up of Buck, De La Rosa, Krofft and Martin, placed second in the Horticulture Judging Contest in the Club Judging Fruit and Nut Crops category. The Horticulture Club is advised by clinical assistant professor Garry McDonald and instructor Shannon Mason.

In addition to the awards, freshman Kelsey Brazelton was named president-elect for the ASHS Association of Collegiate Branches. Preston Smith, a Bumpers College junior horticulture major, is ACB president for 2017.



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## Horticultural Entrepreneurs Lecture Series Continues



This lecture series has become something that our students look forward to each semester and we continue to bring in top-notch horticulturists from around the country to share insights with our students about owning a business in the horticulture industry. Our fall lecture featured Bruce Knox from [Knox Nursery](#) in Winter Garden, Florida. Knox Nursery is a plug and liner producer of more than 55 years that uses technology such as RFID (radio frequency identification) to

streamline and improve the customer service experience. In June of 2014 Florida Governor Rick Scott signed State Bill 1030 "The Compassionate Care Act" which allows the use of low-THC/high CBD cannabis for people suffering from cancer, seizures and muscle spasms. Cansortium Holdings worked with Bruce through the licensing process and Knox Medical was born. [Knox Medical](#) was awarded one of the highly competitive licenses to cultivate, process and dispense low-THC and medical cannabis products. This topic has been of particular interest to our young horticulturists given Arkansas passed The Arkansas Medical Marijuana Amendment in 2016. Our students were able to ask Bruce questions (maybe too many!) and get honest answers from someone who was going through the process of getting a license to cultivate. This was an experience most of us thought would never happen and not only did it happen, it happened with a packed house.

In the spring we hosted Dr. Wendy Gelernter and Dr. Larry Stowell from [PACE Turf](#) based in sunny San Diego. PACE Turf provides practical applications based on scientific research to the turf industry in a web subscription format. They were able to share insights with our students on building, managing and maintaining a consulting business. There wasn't an empty seat in the house for this lecture either. We plan to continue this series this fall and we will report back next year.

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## Turf Graduate Students Earn Honors in National Turfgrass Science Competition



Three turf graduate students earned recognition in national competition at the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America meeting in Phoenix.

Michelle Wisdom (back, middle left), Dan Sandor (front) and Paige Boyle (back, middle right) claimed first, second and third place honors, respectively, in the Turfgrass Science

division competition.

Wisdom won first-place poster presentation honors and Sandor was second in the oral division of the Turf Ecology and Management category, and Boyle was third in poster competition in the Golf Turf category.

Wisdom and Boyle are master's students in horticulture, and Sandor a doctoral student in plant science.

Wisdom's poster was "Evaluating Spring Bulbs in Warm Season Lawns." Sandor's presentation was "Evaluation of Irrigation Sensors for Lawn Turf and Potential Water Savings." Boyle's poster was "Sand Topdressing Effects on Earthworm Activity in Warm Season Golf Course Turfgrass."

Wisdom earned her bachelor's degree in horticulture, landscape and turf sciences, and Boyle her bachelor's degree in environmental, soil and water science, both from Bumpers

College. Sandor is a doctoral candidate and graduate research assistant who previously studied and worked at Western Kentucky University.

The November meeting drew more than 4,000 scientists, professionals, educators and students.

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## Congratulations Graduate Students!

**Susan Alman M.S.**  
**Jennifer Billig M.S.**  
**Luke Freeman M.S.**  
**Terrence Frett Ph.D.**  
**Waltram Ravelombola M.S.**  
**Alejandra Salgado Ph.D.**



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## 2016 Turf Field Day

Turf Field Day was held August 3, 2016. The field day demonstrated Division of Agriculture research aimed at improved management systems for lawns, sports fields and golf courses. The field day included a trade show, field tours of turf plots and research presentations. A barbecue lunch concluded the day followed by a pesticide recertification class. Look for more information about the 2018 Turf Field Day some time after the new year at [turf.uark.edu](http://turf.uark.edu).



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## O'Brien Earns Future Leaders in Science Award

Daniel O'Brien, a graduate student in the U of A's Dale Bumpers College of Agricultural, Food and Life Sciences, has earned a Future Leaders in Science Award from the American Society of Agronomy, Crop Science Society of America and Soil Science Society of America.

O'Brien, who is working on his master's degree in horticulture with a concentration in





turfgrass management, was presented the award at the annual ASA, CSSA and SSSA Congressional Visits Day in Washington, D.C., March 14. He was one of only 18 recipients for 2017. The awards are in recognition of interest and engagement in science advocacy.

O'Brien is a horticulture program technician working with professor Doug Karcher, assisting in turfgrass research. O'Brien's research focuses on adapting technologies used in turfgrass management, particularly as they relate to golf course putting greens.

"Daniel is a great fit for this award because he will certainly be a leader in the field of crop science," Karcher said. "I am thrilled that he had the opportunity to get plugged into the world of science advocacy while representing our program and the University of

Arkansas."

O'Brien earned his bachelor's degree in agronomy and soils from Auburn University and joined the U of A Horticulture Department in 2013.

ASA, CSSA and SSA are scientific societies helping members advance the disciplines and practices of agronomy, crop, soil sciences and related disciplines.

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## Other Awards and Merits

### Department Outstanding Senior and Graduate Students

- Tyler Carr, Senior
- Melinda Yin, M.S.
- Dan Sandor, Ph.D.

### Vaile-Watts Outstanding Graduating Senior

- Kenneth Buck

**Pi Alpha Xi, an honor society for all disciplines of horticulture, recognizes juniors and seniors with high scholastic achievement who demonstrate a strong interest in**

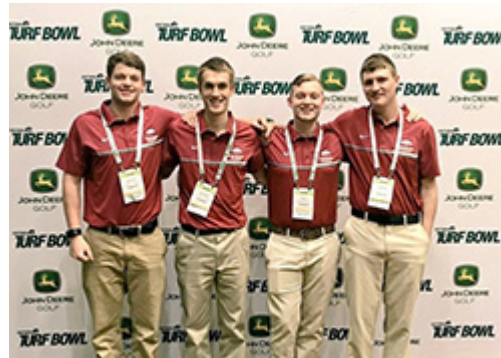
**horticulture. Students must have a minimum of a 3.0 GPA. Three students were inducted this year.**

- Courtney Cooper
- Morgan Gramlich
- Janis Partain

**Gamma Sigma Delta (Honor Society of Agriculture) Arkansas Chapter held their 63rd Annual Student Competition this spring.**

- Paige Boyle won 1st place in the M.S. Poster Presentation
- Dan Sandor finished 2nd in the Ph.D. Oral Presentation competition

**The Golf Course Superintendents Association of America and the National Golf Course Owners Association presented the Golf Industry Show in Orlando, Florida from February 4-9th. Members of our Turf Club competed in the Turf Bowl.**



From above left, Austin Pettit, Patrick Smith, Kyle Livesay and Thomas Walton competed in the team competition finishing 13th out of 58 teams in the national competition.

**The annual American Society for Horticultural Science conference was held in Atlanta, Georgia in 2016. Several faculty members attended and Dr. Curt Rom concluded his year-long term as president of the American Society for Horticultural Sciences. One undergraduate student participated in the conference.**

- Olivia Caillouet placed 3rd in the undergraduate student oral research presentation competition.

**The Graduate School hosted a Three Minute Thesis Competition where graduate students summarized their thesis or dissertation in three minutes to a general audience with a single static PowerPoint slide to accompany their presentation.**

- Dan Sandor was the People's Choice winner and took home \$250 for his presentation "Evaluation of Irrigation Sensors for Lawn and Turf and Potential Water Savings."

## **Other Faculty Awards**

- Janet Carson was awarded the highest honor from the Arkansas Green Industry Association (AGIA), the Sturdy Oak Award.
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## **Dr. Evans Named Interim Associate Dean of Bumpers College**

Mike Evans was named interim associate dean of the Dale Bumpers College of Agricultural, Food and Life Sciences in August of 2016. Evans, appointed to the position by former Provost and Vice Chancellor for Academic Affairs Ashok Saxena and Vice President of the U of A System Division of Agriculture Mark Cochran, fills the role of Lona Robertson, who is now interim dean after serving as associate dean since 2011.

As interim associate dean, Evans provides oversight for curricular affairs, course registration and student affairs; assistance to department heads and works with associate deans across campus and other U of A offices; provides direction in the college's areas of advising, retention, facilities and distance education; guidance to faculty regarding workload assignments, mentoring and use of resources for achieving curriculum needs and college strategic objectives; and coordinating the college's honors program, international studies and distance education programs, among other duties.

Evans joined the Bumpers College's Department of Horticulture faculty as associate professor in 2001 and was promoted to professor in 2009. He has also been an assistant professor of horticulture at Iowa State University (1994-2001), and assistant professor and extension specialist at the University of Florida's Gulf Coast Research and Education Center (1990-94).

His research has centered on greenhouse and controlled environment food crop production, primarily fresh, leafy greens such as lettuce, dandelion and arugula, along with herbs and small fruits such as strawberries and blackberries.

He earned his bachelor's degree in horticulture in 1985 from Virginia Tech University, and his master's degree in horticulture in 1987 and his Ph.D. in horticulture in 1990, both from the University of Minnesota.

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## **International Horticulture Expert Beth Mitcham Featured at Bumpers College Global Food Opportunities Event**

Beth Mitcham, director of the USDA-funded Horticulture Innovation Lab at the University of California, Davis, was the featured speaker at the Global Food Opportunities Seminar Series hosted by the Dale Bumpers College of Agricultural, Food and Life Sciences at the



University of Arkansas in November 2016.

The Global Food Opportunities series, which is open to students, faculty, staff and the public, exposes students to international experiences and opportunities to expand career and academic options.

Mitcham discussed experiences and knowledge of international horticulture development and where her area of expertise is headed in the future. Her presentation included time for questions from the audience.

At the Horticulture Innovation Lab, Mitcham focuses on fruit and vegetable development to aid smallholder farmers in developing countries. The lab works in conjunction with the United States Feed the Future initiative. The partnership allows them to collaborate with more than 18 universities around the country and 200 organizations around the world, including areas such as Latin America, Africa and Asia.

Mitcham is also on the faculty at UC Davis where she serves as a postharvest physiologist. She has helped train professionals from more than 40 countries as one of the leaders of the Postharvest Technology Center.

She earned her bachelor's degree from the University of Maryland, her master's degree from North Carolina State University and her Ph.D. from Maryland. Mitcham joined the UC Davis faculty in 1992 as a postharvest pomologist and cooperative extension specialist.

In 2015, Mitcham was named Outstanding International Horticulturist by the American Society for Horticulture Sciences. She was elected vice president of the international division of the American Society for Horticulture Sciences in 2016 with her term beginning in 2017.

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## Hellos and Goodbyes

This year we bid farewell to two employees who enjoyed lengthy careers here at the University of Arkansas. We wish them a peaceful and relaxing retirement.

- Dennis Motes retired from the Vegetable Research Station in Kibler, Arkansas after 32 years of service.
- Shirl St.Clair retired from the Horticulture Office after serving 35 years.

Jason McAfee, a Program Technician for Dr. Garcia, left this year, not in retirement, but pursuing a new career teaching high school students.

We also welcomed new faces to our team.

- Daniel Eldridge joined our Farm staff as a Maintenance Specialist.
- Lacy Nelson joined Dr. Worthington's lab as a Program Associate
- Jun Qin joined Dr. Shi's lab as a Post Doc.
- Bethany Sebesta joined Dr. Clark's lab as a Program Technician

And last, but not least, we have added several new graduate students to our program.

- Sam Doty (M.S. with Dr. Evans)
- Nathan Eylands (M.S. with Dr. Evans)
- Brianna Heilsnis (M.S. with Dr. Worthington)
- Paige Hickman (M.S. with Dr. Lee)
- Waltram Ravelombola (Ph.D. with Dr. Shi)
- Maxwell Vonkreuzhof (M.S. with Dr. Worthington)



Arkansas Horticulture is a newsletter for alumni, faculty, staff, students and friends of the Department of Horticulture at the Dale Bumpers College of Agricultural, Food and Life Sciences and the University of Arkansas System Division of Agriculture.

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