

Julian C. Miller, Sr. Distinguished Researcher Award
Southern Region of the American Society for Horticultural Sciences

Background: The research award of the Southern Region was the L. M. Ware Distinguished Research Award from 1967 to 2005. At that time, the Southern Region lost funding for the award from Dr. Ware's endowment. Dr. J. Creighton Miller came forward and established an endowment to assure a perpetual source of funds. The award was renamed in honor of Dr. Miller's father, Dr. Julian C. Miller, Sr. The first award was presented in 2006.

Donor: Endowed Dr. J. Creighton Miller, Jr.

Award: Plaque and \$200

Description: The award recognizes an active member of the Southern Region of the American Society for Horticultural Science who has had an outstanding record in research on one or more horticultural crops and in one or more areas of horticultural research for a period of ten or more years.

Eligibility: The nominee must meet the following criteria.

- 1) Must be an active member in good standing in Southern Region ASHS.
- 2) Actively engaged in research for 10 years or more in a horticultural field.
- 3) Nominees are considered actively engaged in research if a substantial portion of their current effort is involved in the activity, regardless of their appointment.
- 4) Not a previous recipient of the Miller Educator Award, or former L.M. Ware Distinguished Research Award.
- 5) Institutions may nominate only one candidate per year.

Nomination Packet: The nomination packet should be prepared as follows:

- 1) Table of Contents
- 2) Letter of Nomination (limited to 4 pages).

The letter should indicate the reason for nominating this individual. The letter should identify the major contributions on which the nomination is based and explain why the nominee is especially qualified to receive the award. Each of the following criteria should be addressed in the statement:

- a. Outstanding application of horticultural science during career.
- b. Impact and originality of contributions that have led to the development or improvement of horticultural crops, cropping practices, programs, and/or products.
- c. Leadership on scientific matters in a horticultural industry, as well as in horticultural science and the profession.
- d. Additional activities, contributions, and services to horticultural science, the horticulture industry, and the profession, including participation in public and international research, extension, and education programs; awards received, involvement in national and regional ASHS activities; and participation in other professional and industry organizations.

- 3) Nominee's Biographical Data. This information should be provided on the following items in the order listed:
 - a. Name of nominee
 - b. Current position (title, rank, department or unit)
 - c. Number of years in this position
 - d. Number of years at present institution
 - e. Degrees held (institution and date)
 - f. Employment history (previous positions, years; list most recent first)
 - g. Honors, awards, and recognitions, especially any related to teaching
 - h. Membership in professional and honorary societies (note offices held)
 - i. Cultivars developed and patents received as appropriate
 - j. Grant funding acquisition
 - k. Involvement with graduate student training
 - l. List of articles (refereed and others), books published, invited presentations, and professional accomplishments **within the last five years** (if there are particularly significant accomplishments before the last five years, those should be included in the letter of nomination). Include total lifetime publication numbers by category
- 4) A maximum of 5 letters of support, including at least one from another institution.
- 5) Nominees not selected for the award in the year of initial nomination shall be kept on file for automatic reconsideration one additional year from initial application.

About the Namesake

Julian Creighton Miller, Sr.

Dr. Julian Creighton Miller, Sr., an internationally recognized pioneer in plant breeding research, was born in Lexington, South Carolina, on November 29, 1895. After taking time out from his studies to serve as Ensign in the Navy during World War I, he received his B.S. degree in Horticulture from Clemson College in 1921. He was an instructor at North Carolina State College from 1921 to 1923, at which time he returned to his native state as County Agent in Orangeburg County for the next three years. He then accepted a graduate assistantship under Dr. Homer C. Thompson, Head of the Department of Vegetable Crops at Cornell University, where he received the M.S. (1926) and Ph.D. (1928) degrees. After receiving the Ph.D., he was appointed horticulturist and professor at the Oklahoma Agricultural and Mechanical College. In 1929, he became Professor of Horticulture and Head, Horticultural Research at Louisiana State University, and subsequently Head of the Department of Horticulture - a position he held until his retirement in 1966. The Agronomy/Horticulture Building was renamed Julian C. Miller Hall in 1986. He was Past-President of the Southern Region ASHS and of the national organization as well. He was an ASHS Fellow and was inducted into the ASHS Hall of Fame in 1998.

When Dr. Miller went to Louisiana State University in July, 1929, there were only three other trained horticulturists in the state, one each in teaching, extension, and at a substation. His assignment was to develop the horticulture program in the state of Louisiana. By 1966, there were 17 staff members at the main station and three at the Sweet Potato Research Center. There were six horticulturists in the Extension Service at the University and 7 County Agents trained in horticulture out in the state. From one horticultural substation in existence in 1929, the number grew to three with a staff of 12 well-trained individuals. Although Dr. Miller is widely known for his research, his most lasting impact on world horticulture came from the many students throughout the world who studied under him. A large number of individuals in commercial horticulture were trained under his direction. During this period, more than 250 were trained, most of whom received the M.S. or Ph.D. degree at Louisiana State University. The superintendents and personnel at all of the branch stations and the extension specialists were all trained at the main station. Many of his former students went on to make significant contributions in the field of horticulture. Many became heads of major horticulture departments - University of Maryland, University of Georgia, North Carolina State, Mississippi State, Louisiana State, Auburn, and University of Arizona. Several became extension service and experiment station directors, deans, and one was head of vegetable research for the U.S. Department of Agriculture. Others attained prominence in industry and academia in at least twenty states. Additionally, at the time of Miller's retirement, foreign students trained under his direction were employed in at least sixteen foreign countries-primarily developing countries. At the time of his retirement it was estimated that some of Louisiana's training in horticulture was being passed on to several individuals at each of 38 locations throughout the world each year. Dr. Miller often commented that his greatest accomplishment was not in research, but in training students. Miller's legacy is thus not limited only to results of his research but to the contributions of the many others who were fortunate enough to have been trained by him.

While former students best remember their one-on-one interaction with Dr. Miller, he was also active in the classroom. He received several teaching awards, and his Saturday

morning graduate class on world horticulture was favored by students interested in international agriculture.

The imprint of Dr. Miller's research, conducted during his 37 years at L.S.U., was left on almost every Louisiana fruit and vegetable crop, but on none more than the multi-million dollar sweet potato and strawberry industries. Dr. Miller is most widely recognized for his work with sweet potatoes. When he came to Louisiana sweet potato production was limited primarily to production for home use; food for family and livestock feed. The Porto Rico, the most popular variety, was superior to most other varieties, but lacked certain characteristics to make it widely acceptable. By 1934, Miller had developed the Unit 1 Porto Rico variety which was selected as a mutation of the Porto Rico variety. At that time sweet potatoes would not blossom and set seed in the United States and it was of course not possible to develop new varieties by classical breeding methods. Nevertheless, release of the Unit 1 Porto Rico resulted in the development of a new agricultural industry in Louisiana.

By 1937 Miller had developed a technique by which the sweet potato plant could be induced to flower and set seed in the continental United States thus leading to the development of a sweet potato breeding program which attracted experiment station workers and students from all over the world. Two varieties derived from the program were the dominant varieties in Louisiana for almost three decades. Goldrush, introduced in 1951, was the dominant variety until 1960 when Centennial was released. In 1970 every acre of the 55,000 acres grown commercially in Louisiana were of the Centennial variety, and it was estimated that 80 percent of all sweet potatoes grown commercially in the United States were of the Centennial variety. Production of this variety was not only in the United States, but also in Latin America, Africa and Asia as well. Miller's research with sweet potatoes resulted in a major contribution to American and international horticulture.

His research methods became the model for all other sweet potato breeding programs in the world. Many other southern states and the U.S. Department of Agriculture were interested in setting up similar programs. He personally contacted the Dean of the College of Agriculture, the Farm Council, and Senators and Congressmen in Washington to obtain an appropriation of \$32,000 for the U.S. Department of Agriculture to assist the states and federal agencies in establishing a cooperative sweet potato breeding program. This national project was organized in the fall or winter of 1939, and probably no other breeding program has ever accomplished more in such a short period of time. By 1966, there were 15 experiment stations, including the U.S. Department of Agriculture, cooperating with this program. This represented more than 50 scientists who worked toward the development of this crop. At the time that the sweet potato program was initiated, the sweet potato industry of Louisiana was worth around 5 million dollars. Through breeding and improvement of foundation seed, the industry (fresh market and processed) was valued at about 20 million dollars in 1966.

The introduction of the Klonmore variety of strawberry which resulted from his breeding work meant an annual savings to growers of \$20.00 an acre due to the fact that it was resistant to leaf spot and scorch diseases and did not have to be sprayed for their control. In addition, this berry was sweeter and more attractive to the consumer than previous standard varieties. Later introductions from the Louisiana station, the Headliner and Dabreak, added another boost to the strawberry industry because of their size, yielding ability, and quality. In an unprecedented show of gratitude for his development of disease-free varieties, the strawberry industry presented him with a new automobile in 1948.

Dr. Miller was also the first to develop a breeding program in the South for white or Irish potatoes and cabbage and other brassica. In 1938, working through the Dean of the College of Agriculture and congressmen in Washington, he obtained an appropriation of \$10,000 to help support the Irish potato breeding program which had just been started. The purpose of this was to bring a USDA scientist to Louisiana to assist with the breeding program, particularly with reference to potato diseases. As a result of this work, one of his introductions, Red LaSoda, brought the Irish potato industry back, an industry considered lost in Louisiana. Red LaSoda ranked 6th in the amount of seed certified in the United States and, 50 years after its introduction, remains one of the leading red skinned varieties in the United States. Later releases that are still in production were LaRouge and LaChipper. LaRouge is very similar to Red LaSoda but is slightly earlier and more resistant to scab. LaChipper filled a need in the South for a potato for chipping purposes.

During his years of service with Louisiana State University, Dr. Miller also initiated breeding programs with English peas, cowpeas, Lima beans, snapbeans, okra, onions, shallots, pumpkin, carrots, squash, hot peppers, sweet corn, citrus, and peaches in north Louisiana with the fruit program. As a result of the research program organized and conducted at Calhoun and at the main station, the peach industry grew in north Louisiana. The Harvester peach, released from this program, is still a leading variety in the South.

Summarizing the accomplishments of his vast breeding and improvement programs, Dr. Miller was involved in the release of 9 varieties of sweet potato, 7 of Irish potato, 4 of strawberry, 4 of snapbean, 3 each of hot pepper and tomato, 2 each of okra, cabbage and southern peas, and 1 each of onion, peach, pumpkin, carrot, collard, and squash.

Dr. Miller worked very closely with the U.S. Department of Agriculture and was an official collaborator with that organization beginning in 1930, including a very close relationship with the Southern Utilization and Development Laboratory at New Orleans. The new sweet potato flake on which he and the Laboratory cooperated was an outstanding product. He received a citation from the Quartermaster Corps for work during World War II on the development of dehydrated sweet potatoes for the Army.

In 1934, Dr. Miller and the late R.A. McGinty of Clemson were instrumental in obtaining an appropriation for the establishment of the U.S. Vegetable Breeding Laboratory at Charleston, South Carolina, and he served as an official collaborator of that station since its organization. He was also responsible for establishing the Tung Oil Laboratory at Bogalusa, Louisiana, to help develop this crop which needed a great deal of basic research. He served on the committee that sponsored legislation to establish the National Seed Storage Laboratory at Fort Collins, Colorado, and was a member of the committee which worked for the establishment of the Potato Plant Introduction Station at Sturgeon Bay, Wisconsin to introduce, classify, preserve, distribute and evaluate germplasm of potato (Solanum spp.). He was a member by invitation of the North Central Potato Group. He was also a member of the Technical Committee of the New Plant Introduction Station at Experiment, Georgia, for the Southern Region.

As a result of Dr. Miller's research accomplishments in Louisiana, industry backed appropriations for buildings and other research facilities in the state. By his retirement in 1966, the Horticulture Department which he developed was one of the top rated in the United States and was recognized worldwide. He developed a well-balanced research program which took into consideration the breeding, cultural, storage, analytical, processing, and marketing phases of fruits, vegetables, and ornamentals.

Dr. Miller died in Baton Rouge, Louisiana, on April 13, 1971, at the age of 75 (see editorial below). He is survived by two sons, Rodman B. Miller, M.D. of Hawaii Volcanoes National Park, Hawaii and Dr. J. Creighton Miller, Jr., of College Station, Texas.

JULIAN C. MILLER
November 29, 1895 - April 13, 1971

Dr. Miller Leaves World Better Than He Found It

There is a kind of immortality men strive for which has nothing to do with religious faiths or belief in a hereafter. It concerns the contributions a man makes in his lifetime to the world in which he is born - tangible evidence that he passed this way and left the world a little better for his passing

Such a man was Dr. Julian Creighton Miller, 75-year-old internationally-known horticulturist who died here Tuesday after a lifetime of improving the food crops man needs to survive.

The immortality of his work is found on almost every Louisiana vegetable crop, with especial emphasis on the state's multi-million dollar sweet potato and strawberry fields.

Simultaneously, his imprint on the economy of individuals throughout the state remains as a continuing memorial to his life's work. Thousands of individual small land-owners who once lived on the raw edge of poverty have prospered because his plant research made their once-barren acres highly productive.

The tangible evidence of his passing through this life can be found far beyond the boundaries of Louisiana and the nation. Results of his plant research have improved life for millions in Europe, Asia, South America and other counties around the world.

The presidential commendation awarded him in February was for "exceptional service to others in the finest American tradition" -- and the phrase probably was never better used.

He will be missed, but he leaves behind him, not a vacuum, but a wealth of accomplishment which benefit his fellow men.

Editorial, Morning Advocate, Baton Rouge
April 15, 1971