

Resume

James O. Garner, Jr.

**1890 Research Director/Administrator 1890 Extension
Program**

(2001-2008 Associate Research Director)

(2008-Present 1890 Research Director)

Education:

Ph.D., Vegetable Crops, Cornell University, 1976. Thesis: Some Physiological and Anatomical Aspects of the Bean (*Phaseolus vulgaris L.*) Fruit.

M. S., Horticulture, Mississippi State University, 1972. Thesis: The Effect of Plant Density on Yield and Maturity of Cucumbers (*Cucumis sativas L.*).

B. S., Science Education, Delta State University, 1970.

Professional Experience:

University of Arkansas at Pine Bluff

Dean/Research Director and Extension Administrator July 2008-Present

Chair Department of Agriculture/Associate Director 2001-June 2008

As the Dean, Director of Research and Extension Administrator, I manage the budget of the 1890 Research and Extension program at the University of Arkansas at Pine Bluff, supervise the preparation of the five-year Plan of Work and approval of Extension and research projects for the School of Agriculture, Fisheries and Human Sciences (SAFHS). I also monitor the implementation of the 5-year Plan of Work and oversee the NIFA reporting activities.

As the Chair/Associate Research Director, I have provided leadership for the academic program in the Department of Agriculture. The Chair is responsible for supervision of departmental faculty, staff and the maintenance of recruitment, assessment and student retention programs. The Chair collaborates with the Associate Dean of Outreach and Technology Transfer in support of Extension activities. I have provided leadership in developing the UAPB Farm. As Chair/Associate Research Director, I provided leadership in acquiring extramural funding in support of the teaching and research. As the Associate Research Director I assisted the Dean/Research Director with the SAFHS research program and serve as the University's contact with the Association of Research Directors of the 1890 Universities.

Professor Horticulture: Mississippi State University 1987

Associate Professor: Mississippi State University 1980-87

Assistant Professor: Mississippi State University 1977-80

As a teacher at Mississippi State University I taught several courses: including Vegetable Production, Home Gardening, Survey of Agriculture, and General Horticulture in the undergraduate program. In the graduate program, I taught Plant Nutrition of Horticultural Plants, Physiological Processes and Crop Yield, Post-harvest Physiology, and Research Methods (a laboratory course).

My areas of research included environmental stress physiology and post-harvest physiology. The objectives of the stress physiology were developing sweet potato breeding material with improved adaptability to environmental stresses and determine the physiological differences among sweetpotato genotypes with differing levels of tolerance to environmental stresses. The research activities in post-harvest physiology were directed to developing handling procedures for apples, pears, and blueberries produced in Mississippi.

My research responsibilities also included maintaining the horticultural physiology laboratory. Instruments in this laboratory were a gas chromatography, high performance liquid chromatograph, gel-electrophoresis, and other standard equipment such as spectrophotometer, high speed centrifuge, and column chromatograph. In this laboratory I trained students in the areas of membrane lipid physiology, iso-enzyme analysis, and post-harvest analysis of fruit and vegetable quality traits.

Horticulture Specialist:

North Carolina Cooperative Extension Service, North Carolina A&T University, 1976-1977

At North Carolina A&T University I served as the Horticultural Specialist with the Small Farm Program. This program was dedicated to serving the small and low income farmers of North Carolina. The main horticultural crops that these farmers worked with were southern peas, tomatoes, watermelons, and cucumbers. However, because of the nature of this program many other crops were also involved.

Research Assistant

Cornell University 1973-1976

As the laboratory assistant in the physiology laboratory, I assisted the Professors and Post-Docs with many experiments. The main areas of research in this laboratory were photosynthesis, partitioning, and enzyme activity relating to these topics. This work was carried out using dry beans.

Teaching Assistant:

Cornell University 1973-1976

As a teaching assist for the general horticulture course, I gained valuable information on many aspects of horticulture, from fruits to ornamentals. This was a unique experience for those who served in this capacity, because at Cornell, at that time, the Vegetable Crops Department was separated from other aspects of horticulture.

Assistant County Agent:

Mississippi Cooperative Extension Service, 1972-1973

As Assistant County Agent I gained my first experience working with commercial farming operations. I assisted farmers with production of pickling cucumber, pimento pepper, southern pea, cabbage, and watermelon. Most of these farmers had small or part-time operations.

Research Assistant:

Mississippi State University 1970-1972

I assisted my major professor with his sweetpotato breeding program. In the summers I conducted cultivar trials for pepper, cucumber, southern pea, and sweetpotato.

Other Research Activities (International)

USDA funded project with Partners of the Americas. This is a three year project. (1999-2001) with the objectives of collecting drought tolerant sweetpotato germplasma in Guyana, South America and facilitating better cultural practices, handling, and storage of sweetpotatoes by farmers in Guyana.

Farm Advisor, Liberia (Summer 1975)

As a graduate student at Cornell I was given the opportunity to work in Liberia as a farm advisor to a small private group. This group was attempting to start a vegetable farm. My responsibility was to determine the start up cost.

Thailand

Cooperated with a group of researchers in Thailand to develop a Memorandum of Understanding between Mississippi State University and Majo University in Thailand. I had two visits to Thailand to develop research projects.

Charles White Grant (1998-2000)

A two year grant to develop a modified atmosphere storage system for blueberry storage.

Columbia, South America

Worked with the Center for International Agriculture on a sponsored student's research project carried out in Columbia.

Professional Societies and Activities

American Society for Horticultural Science (ASHS)

Southern Region ASHS:

Vegetable Section Chairman, 1982

Member of the Executive Committee, 1986-87

National Sweet Potato Collaborator Group

Chairman, Sprout Production and Root Piece Propagation Committee, 1987

Chairman, Physiology Committee, 1988

Gamma Sigma Delta, Honorary Agricultural Society

Sigma Xi, Honorary Science Society

Mississippi Academy of Sciences

Chairman, Agriculture and Plant Science, 1995 and 1999

Vice-Chair, 1994 and 1998

Honors Received

Partners of the Americas, 2002, Dumond Peck Hill, Volunteer of the Year Award
Received the L. M. Ware Distinguished Teacher Award given by Southern Region ASHS,

Awarded the Alpha Zeta Teacher Award for the College of Agriculture and Home Economics, 1991.

University Committees

Athletic Council 2000

Affirmative Action Compliance Program Committee, 1978-1984

Committee on Minority Affairs, 1978-2000

Was president of this minority faculty group for two terms.

Student and Faculty Organization Committee. 1979-1981.

University Self-Study, 1991-1992

Served as Chairman for Research Subcommittee.

The report of this committee was submitted to obtain University accreditation.

College Committees

Academic Advisory Committee, 1979-1981

College of Agriculture and Home Economics Self-Study, 1981-1982

Faculty Development, 1984

Department Committees

Graduate Student Screening Committee, 1978-1990
Transfer Student Evaluation Committee, 1980-1981

Other Campus Activities

Advisor and Coach of the MUS Soccer Club, 1978-1980
Advisor for Omega Psi Phi Fraternity, 1980-1990

Other National Activities

Served on the Peer Review panel for the 1890 Institution Capacity Building Grants Program, 1993-2000.
Served on the Biological Science Panel for the National Research Council to review the National Science Foundation Minority Graduate Fellowship applications, 1988-1995.

Community Activities

Scout Master, Troop 100, 1978-1993
Active in the graduate chapter of Omega Psi Phi
Member of Griffin United Methodist Church

Publications (2005-2009)

Islam, S., Camren R. and Garner, J. O. 2009. Carbohydrate compositions and peroxidase activity in ungerminated, cotyledon and embryo tissues of *Vigna unguiculata* L. Walp seed grown under stress temperature. American Journal of Plant Physiology, 4: 9-17.

Islam, S., Rafaela, C. and Garner, J. O. 2009. Development of selection procedures of sweetpotato genotypes according to chilling tolerance. Journal of Food Agriculture & Environment, 7: 237-245.

Islam, S., Rafaela, C. and Garner, J. O. 2008. Physiological and biochemical characteristics of cowpea (*Vigna unguiculata* L. Walp) genotypes. American Journal of Plant Physiology. 3: 16-25.

Islam, S. and Garner, J. O. 2008. Performance of selected sweetpotato genotypes. Arkansas Agricultural, Environmental and Consumer Sciences Journal. 7: 17-19.

Islam, S., Carmen, R. and Garner, J. O. 2008. Effect of temperature on the sugar compositions and peroxidase activity in ungerminated, cotyledon and embryo tissues of southernpea (*Vigna unguiculata* L. Walp) Seeds. Proceedings of the 52nd annual rural life conference, February 8, 2008, UAPB, Pine Bluff, AR p. 17.

Islam, S., Porter, O, Izekor, S. and Garner, J. O. 2007. Quality characteristics and yield attributes of sweetpotato genotypes grown under sustainable cultural conditions. *Journal of food, Agriculture & Environment*, 5:220-224.

Islam, S., Rafaela, C. and Garner, J. O. 2007. Fatty acid compositions in ungerminated (whole seed), cotyledon and embryo tissues of cowpea (*Vigna unguiculata* L. Walp) seed grown under different temperature. *Journal of food, Agric. & Environment*, 5: 190-196.

Islam, S., Khan, S. Garner, J. O. 2006. Elevated Atmospheric CO₂ Concentration Enhances Carbohydrate Metabolism in Developing *Lycopersicon esculentum* Mill. Cultivars. *International Journal of Agriculture & Biology*. 8: 157-161.

Islam, S., Rafaela, C. and Garner, J. O. 2006. Screening for Tolerance of Stress Temperature during Germination of Twenty Five Cowpea (*Vigna unguiculata* L. Walp) Cultivars. *Journal of food, Agriculture & Environment*, 4: 191-195

Islam, S., Porter, O. A. Corley, A. V. and Garner, J. O. 2005. Genotypic variation of fifteen sweetpotato (*Ipomoea batatas* L.) varieties grown in southern Arkansas. *J. Arkansas Agricultural & Rural Development*, 6: 16-18.

Islam, S., Porter Rafaela, C. and Garner, J. O. 2005. Genotypic variation of germination percentage of different southern pea cultivars according to temperature stress. *Arkansas. J. Arkansas Agricultural & Rural Development*, 6: 19-22.

Islam, S., Jalaluddin, M., Garner, J. O. 2005. Artificial shading and temperature influenced on anthocyanin composition of *Ipomoea batatas* leaves. *HortScience*: 40: 176-180.

Other Publications

Ouma, J. P., C. E. Watson Jr., L. M. Gourley, and J. O. Garner, Jr. 1999. Changes in Fatty Acid Composition of Sorghum Leaf Polar Lipids Under Chilling Stress. *Int. Sorghum and Millets*. No. 39, pp 100-101.

Kawatin, A., F. B. Matta, and J. O. Garner, Jr. 1999. Association of Seasonal Fatty Acid Changes and Cold Hardiness in Pecan. Submitted to *J. Amer. Soc. of Hort. Sc.*

Arjona, Matta and Garner, 1994. Wrapping in Polyvinyl Chloride Film Slows Quality Loss of Yellow Passion Fruit. *HortScience* 29:295-296.

Silva, Marroquin, Garner and Magee. 1994. Quality Factors in Muscadines for Table Grapes. *Proceedings for the Viticultural Science Symposium*. 17:59-65.

Silva, Marroquin, Hegwood, Silva and Garner. 1994. Quality Changes in Muscadines for Table Grapes During Refrigerated Storage in Various Packaging

- Systems. Proceedings of the Viticultural Science Symposium. 17:66-72.
- Newell, Garner and Silva. 1994. Estimation of Drought Tolerance in Sweetpotatoes. *Int. J. Exper. Botany* 56:119-125.
- Pankasemsuk, Garner, Matta and Silva. 1996. Translucent Flesh Disorder of Mangosteen Fruit (*Garcinia mangostana L.*). *HortScience* 31:112-113.
- Acock, M. C. And J. O. Garner, Jr. 1987. Activity of Cell-Wall-Bound Invertase During Storage Root Initiation in the Sweet Potato. *HortScience* 22:586-88.
- Arjona, Harvey E., Frank B. Matta and J. O. Garner, jr. 1991. Growth and Composition of Passion Fruit (*Passiflora edulis*) and Maypop (*P. Incarnata*). *HortScience*. 26:921-923.
- Arjona, H. E., Frank B. Matta and J. O. Garner, Jr. 1992. Temperature and Storage Time Affect Quality of Yellow Passion Fruit. *HortScience* 27:809-810.
- Calderson, Celmira De, Mary Aacock and J. O. Garner, Jr. 1983. Phloem Development in Sweet Potato Cultivars. *HortScience* 18:335-336.
- Garner, Phromgtong, Newell, Woods and Silva. 1992. Chilling and Drought Stress Tolerance in Selected Sweet Potato Genotypes. IN. Symp. Sweet Potato Technology for the 21th Century. Pp. 318-324.
- Jimenez, Jose I., and J. O. Garner, Jr. 1983. The Effect of Growth Regulators on Satorage Root Initiation and Growth of Rooted Sweet Potato Leaves. *OYTON* 43:117-124.
- Kim, J. Y., Acock, J. O. Ganrer, Jr., C. C. Singletary and M. L. Salin. 1985. Effect of Nitrogen Fertilizer on Alcohol Soluble Carbohydrate Content. *HortScience*. 20:434-435.
- Silva, J. L., J. O. Garner, Jr., T. Bardwell and L. Newell. 1991. Enzymatic Activity and Quality Changes in Refrigerated Southern Peas. *J. Mississippi Academy of Science*. 35-45-48.
- Woods, F. M., J. O. Garner, Jr. And Juan L. Silva. 1991. Chilling Tolerance in Sweet Potatoes. *OYTON*. 52:33-37.
- Woods, F. M., J. O. Garner, Jr., J. L. Silva and C. Phromgtong. 1991. Estimation of Chilling Sensitivity in Leaves of Sweet Potato by Chlorophyll Fluoresence and

Electrolyte Leakage. OYTON. 52:33-37.

Presentations (partial listing)

Espinoza-Nunez, A., J. L. Silva and J. O. Garner, Jr. 1997. Effect of Transport SO₂ on Postharvest Quality and Analysis of Three Bronze Muscadine Cultivars. Southern Regional Sect. - IFT - SRS/SAAS Mtg., Birmingham, AL. (Abstr.), February 1-4, 1997.

Espinoza-Nunez, A., J. L. Silva and J. O. Garner, Jr. 1997. Effect of Transport and SO₂ on Postharvest Quality and Analysis of Three Bronze Muscadine Cultivars. IFT Ann. Mtg., Orlando, FL. (Abst.), June 14-18.

Garner, J. O. and J. L. Silva. 1997. The Effect of Postharvest Treatment on Muscadine Grapes Harvested at Three Maturity Stages. MAS, (Abst.) Feb. P. 12.

Garner, J. O. and T. Pankasemsuk. 1998. Histology of Sweet Potato Harcore Tissue as Detected with Scanning and Transmission Electron Microscopy. MAS Feb. P. 12.

Lu, X. and J. O. Garner. 1999. Fatty Acid Composition in Normal and Hardcore Tissue of Sweet Potato (*Ipomoea batatas*) Roots. HortScience Vol. 34(5), Abst. P. 827.

Izekor, E., J. O. Garner and F. B. Matta. 1999. Selecting Sweet Potato Genotypes Tolerant to Chilling Stress. HortScience Vol. 34(3) (Abst) P. 445.

Silver, Marroquin, Hegwood, Garner and Magee. 1994. Post-harvest Handling and Storage of Muscadines for Fresh Fruit Marker. 17th Ann. Viticulture Sci. Symposium, Tallahassee, FL (Abst.).

Marroquin, Silva, Garner, Magee, Braswell and Spiers. 1994. Physicochemical Properties of Highbush and Rabbiteye Blueberries and Influence on Refrigerated Storage. IFT Ann. Mtg., Atlanta, GA. (Abst.).

Marroquin, Silva, Garner, Magee, Braswell and Spiers. 1994. Shelf-life and Physicochemical Properties of Highbush (*Vaccinium corymbasum*) and Rabbiteye (*V. Ashei*) Blueberries for Fresh Market. HortScience. 29:553 (Abst.).

Espinoza-Nunez, Silva, Garner and Marroquin. 1995. Stability of Dehydrated Sweet Potato Cubes During Storage. IFT/SAAS Ann. Mtg., New Orleans, LA.

Student Competition. (Abst.).

Silva, Marroquin and Garner. 1995. Chemical Composition of Rabbiteye and Highbush Blueberries and its Relation to Shelf-life and Texture. Miss-Lue Blueberry Growers Assoc. Ann. Mgt., Laurel, MS.

Silva, Espinoza-Nunez, Garner, and Marroquin. 1995. Development and Stability of Dehydrated Sweetpotato Cubes. National Sweetpotato Coll. Grp. Mtg., New Orleans, LA (Abst.).

Garner, Huang, Silva and Marroquin. 1995. The Influence of Field Cooling on Self-Life of Rabbiteye Blueberries. Miss-Lue Blueberry Growers Assoc. Ann. Mth., Laurel, MS.

Espinoza-Nunez, Silva and Garner. 1995. Development and Stability of a Dehydrated Sweetpotato Cube. IFT Ann. Mtg., Anaheim, CA (Abst. - Division competition).

Abesinghe, Garner and Silva. 1995. Fatty Acid Composition of plasmalema Lipids Associated with old Tolerance of Sweetpotato (*Ipomoea batatas L. LAM*) 92ND Ann. Mgt. Amer. Soc. Hort. Sci., Monteval, Canada. HortSci. (Abst.).

Espinoza-Nunez, Silver and Garner. 1996. Produccion y Estabilidad de un Cubo Deshidrarado di Batata Utilizando Tres Metodos de Deshidrartacion. I. Congreso Venezolano de Ciencia y teconlgia de Los alimentos, March 23-27, Caracas, Venezuela.

Haung, Garner and Silva. 1996. Self-life and Quality of New Muscadine Cultivars for Table Grapes as Affected by Postharvest Treatment. IFT Ann. Mgt., New Orleans, LA (Abst.).

Pankasemouk and Garner. 1996. Translucent Flesh Sisorder of Mangosteen Fruit (*Garncinia mangostana L.*). Miss. Acad. Sci., Jackson, MS. (Abst.).

Garner and Haung. 1996. Effect of Pre-Cooling and Pre-Storage Treatments of Rabbiteye Blueberry Storage and Quality Components. Miss. Acad. Sci., Jackson, MS (Abst.).

Garner, J. O. And Tanachai Pankasemsuk. 1997. Histology of Sweet Potato Hardcore Tissue and Detected wotj Scanning and Transmission Electron Microscopy. J. Miss. Aca. Sci. 42:12.

Espinoza-Nunez, A., J. L. Silva, J. O. Garner, Jr. and R. Chamul. 1997. The Effect of Transport and SO₂ on Postharvest Quality and Analysis of Three Bronze Muscadine Cultivars. IFT Abstracts, P. 30.

Graduate Students Completing Degrees at MSU

May 2002	Rafaela C. Curvafal	Ph.D.
May 1999	Mujahid Iqbal	Ph.D.
August 2000	Ibrahim Makhadmeh	Ph.D.
December 1999	Ehlorobo Izekor	Ph.D.
May 1999	Mujahid Iqbal	Ph.D.
December 1998	Yongyooth Sirigiofun	Ph.D.
	Prapaporn Tangkijchote	Ph.D.
August 1998	Tanachai Pankasemsuk	Ph.D.
	Atta Soomro	Ph.D.
May 1998	Xingquan Lu	M.S.
December 1997	Alcibides Carrera	Ph.D.
	Thelma Merchant	M.S.
May 1996	Jiaying Huang	Ph.D.
August 1995	Aretha Green	M.S.
May 1995	Leigh Hawkins	M.S.
	Mohamed Beltagi	Ph.D.
	Azim Khan	Ph.D.
December 1994	Abraham Abesinghe	Ph.D.
May 1992	Jiaying Huang	M.S.
December 1988	Liza Chen	Ph.D.
	Floyd Woods	Ph.D.
August 1988	Iris Cole-Crosby	M.S.
May 1987	Nathanual Keys	Ph.D.
August 1986	Hsiao-Feng Lo	Ph.D.
December 1983	Kevin Handcock	M.S.
August 1983	Rita de Moraes	M.S.
May 1983	Jose Jimenez-Tiamo	Ph.D.
December 1982	Kenneth L. Rogers	M.S.
May 1981	Samuel Avendano	M.S.
May 1981	Samuel Rivers	M.S.
December 1980	Jae Young Kim	Ph.D.
May 1980	Zehainesh Tesfai	M.S.
	Jose Jimenez-Tiamo	M.S.
May 1979	Vithaya Suriyapananont	Ph.D.

