

**Walter A. Hill, Professor
Dean College of Agriculture, Environment and Nutrition Sciences
Director 1890 Research and Administrator 1890 Extension
Vice Provost**

Tuskegee University

EDUCATION

University of Illinois, Ph.D. 1978 Agronomy/Environmental Chemistry
University of Arizona, M.S. 1973 Soil Chemistry
University of Chicago, M.A.T. 1970 Chemistry
Lake Forest College, B.S. 1968 Chemistry

WORK EXPERIENCES – TUSKEGEE UNIVERSITY

Professor, 1984-Present; Associate Professor, 1981-84; Assistant Professor, 1978-81, Dept. Agricultural & Environmental Sciences
Vice Provost for Land Grant University Affairs, 2016-present, Tuskegee University
Dean, College of Agriculture, Environment & Nutrition Sciences, 2011-present, Tuskegee University
Interim Provost and Vice President for Academic Affairs, 2013-14; Vice Provost, 2012-13, Tuskegee University
Research Director, USDA Evans-Allen Research and Director, George W. Carver Agricultural Experiment Station, 1986-Present
Administrator, Tuskegee University Cooperative Extension, 2011-present and 1987-1991, Tuskegee University
Interim Dean, School of Architecture & Construction Science, 2013-2014, Tuskegee University Dean,
College of Agricultural, Environmental & Natural Sciences, 1996-2011, Tuskegee University
Dean, School of Agriculture and Home Economics, 1987-1995, Tuskegee University
Courses taught: freshman orientation, general soil science, soil chemistry, soil physics, soil microbiology, soil classification, soil
& water conservation, soil testing and plant analysis, introductory chemistry
High School Teacher - chemistry, general science, and physical science, 1969-71, Chicago Public Schools

Areas of Leadership and Service: Interdisciplinary and integrative learning/teaching, discovery/research, and engagement/Extension; and effective university-community-government-private sector partnerships

CAREER IMPACTS AND INNOVATIONS

- * Advisor for 17 Award Winning Student Science Projects
- * Co-led the development of two PhD Programs at Tuskegee University 1) Integrative Biosciences, and 3) Integrative Public Policy and Development; facilitated development of the Forest Resources BS/MS degree program, the Environmental Science BS Degree Program, the BS Dual Degree program in Food and Nutritional Science/Biology, the MS in Agricultural and Resource Economics Program and the BS in Agribusiness
- * Provided Leadership for the First Online MS Degree Programs at Tuskegee University (Environmental Science and Environmental Management)
- * Provided Leadership for Development of the Center for Innovative and Sustainable Small Farms, Ranches and Forest Lands (CISFRF) involving the 1890 Land Grant universities, NRCS, FS, RD and FSA
- * Co-founded the Alabama Agricultural Land Grant Alliance, Black Belt Community Foundation, and Black Belt Action Commission.
- * Provided leadership for the NASA sponsored Center for Food and Environmental Systems (\$1.2 Million per year for 15 years) which provided research opportunities for 300 underrepresented minority students in plant physiology and genomics, food science and nutrition, engineering and computer science, and microbiology and environmental science; the Center team published 100+ papers completed two space flight experiments and developed protocols for growing, processing, and utilization of sweetpotatoes, peanuts, carrots and herbs for use on long-term space missions and for small businesses development; also provided leadership for the Space Life Sciences and Training Program (SLSTP) Academic Partnership at Kennedy Space Center.
- * Initiated and co-developed ongoing science, technology, engineering, agriculture and math programs for K-16 students and teachers, including: the NSF Noyce Scholars program, AgriTrek/SciTrek/AgDiscovery Summer Research Program, Carver Experiment Station Apprenticeship Program; and the CAENS Math Infusion Center to strengthen mathematics performance and utilization by students in STEAM and other majors
- * Co-invented and co-patented the system for successful sweetpotato storage root enlargement in a nutrient film (soilless) system with implications for crop growth during long-term space missions.
- * Established the association of non-symbiotic nitrogen fixing bacteria and nitrogen use efficiency for selected sweetpotato cultivars grown in low nitrogen level soils in the southern USA and Nigeria.
- * Provided leadership for the Southern Food Systems Education Consortium (SOFSEC, 9 states, 10 yrs.), Small Farm Regional Marketing Project (9 states, 5 yrs.) and the Professional Agricultural Workers Conference (18 southern & border states, 24 yrs.) focused on serving small and socially disadvantaged farmers and rural communities, through building sustainable partnerships.
- * Worked effectively in partnership with community based organizations, other universities and agencies to address issues of agricultural and environmental sustainability, inequities and empowerment, and poverty and wealth creation-examples include the Alabama Agricultural Land Grant Alliance, Black Belt Community Foundation, and Black Belt Action Commission.
- * Provided leadership in the development of the concept and partnerships required to plan and implement the Carver Integrative Sustainability Center (USDA 1890 Center of Excellence) and Alabama Black Belt Fruit and Vegetable Market Innovation Center (serving 18 counties); worked directly with local leaders and farmers to establish and sustain the Macon County Farmer's Market, and served as PI for the five-state Walmart sponsored project "Sustainable Agriculture Consortium for Historically Disadvantaged Farmers; worked with others to develop the "Small farmers Agricultural Cooperative" that sells fruit and vegetables to Walmart and Whole Foods (2011-present)
- * Provided leadership support for international development projects in 9 African countries (USDA/FAS and USAID, over 20yrs.)
- * Provided leadership in increasing State of Alabama funds for Tuskegee University in Research and Extension 2000-09; 13-present
- * Facilitated planning and funding of Henderson Hall, a 43,000 sq. ft. state-of-the-art, agricultural & life sciences teaching, research and Extension building; opened fall 2013; PI, Monsanto/USDA Funded Build-out of Plant Biotechnology Labs
- * Provided leadership for the development of integrated 1890 Land Grant Research and Extension Programs at Tuskegee University, 2011-present; the integrated 5-year programs were approved in 2013-2014 by USDA-NIFA

LEADERSHIP/SERVICE

Board Member, Macon County Economic Development Authority, 2016-present
Publication Steering Committee, Retaking the Field: the Case for A Surge in Agricultural Research, SoAR Foundation, 2016
APLU Challenge of Change Commission, 2016-2017
Ag Diversity and Inclusion Round Table, 2016-present
APLU/BAA & NIFA/AS Deferred Facility Maintenance Strategy Committee, 2016
APLU/AAVMC Task Force on Antibiotic Resistance in Production Agriculture, 2015
Chair, Academic Heads Section, Association of Public and Land Grant Universities, 2014-2015; Past Chair 2015-2016
Chair, 1890 Council of Deans, 2011-present and 1992-1994; Chair, Association of Research Directors, 1994-96
Chair, 1890 Land Grant 125th Anniversary Steering Committee 2014-present
Board of Directors, STEMconnector Food and Ag Council, 2014-Present; member STEMconnector Higher Education Council
Board of Directors, the International Food Protection Institute, Battle Creek Michigan, 2012-present
Co-Chair, USDA 1890 Task Force Executive Team, 2011-13, member 2011-2016
Provided campus-wide leadership, initiating online and blended courses at Tuskegee University, 2012-2014
Founder, Carver Integrative Sustainability Center (1890 Land Grant-USDA Center of Excellence), 2010-Present
Founder, Black Belt Family Farm Fruit and Vegetable Marketing & Innovation Center, Selma, AL 2011-present
PI, Co-Director, NSF, Tuskegee University Noyce Teachers Scholars in STEM Education, 2009-present
Chair, USDA Farm Service Agency, Alabama State Committee, 2009-2017
Board of Directors, Alabama Nature Conservancy, 2009-2015
Commissioner, Alabama Black Belt Action Commission, Agricultural Committee, 2004-present
Board of Directors, Founding Member, Black Belt Community Foundation, 2004-14; Chairperson, 2009-12; Treasurer, 2006-09
Chair, Professional Agricultural Workers Conference, 1988-present; Co-Founder Professional Agricultural Workers Journal, 2013
Steward Board, Washington Chapel AME Church, Tuskegee, AL, 1993-present
Co-Founder, Alabama Agricultural Land Grant Alliance, 1999-present; Chair, 2004-2005 and 2010-2013
PI, Director, Southern Food Systems Education Consortium (SOFSEC), Kellogg Foundation, 1994-2007
Co-Director, USDA/IFAFS Small Farmer Regional Marketing Project, 2001-2006
Featured in "George Washington Carver Tech," Modern Marvels, History Channel, 2005-present; "The New Explorers" Television Series; Public Broadcasting Station, 1992-present; the Chicago Field Museum, George Washington Carver Exhibit, 2008; and the Walmart Global Sustainable Agriculture Milestone Meeting, 2010 (<http://walmartstores.com/Sustainability/10300.aspx?p=9496>)
Board of Directors, American Distance Education Consortium, 1990-2005
NASA Biological & Physical Research Advisory Committee, 2001-2004; NASA Life Sciences Advisory Subcommittee, 1994-2004
Board of Trustees, Lake Forest College, Illinois, 1989-2001
Board for International Food and Agricultural Development (BIFAD), USAID, 1995-2001
USDA National Research, Educational, and Extension Advisory Board, 1998-2001
PI, Director, NASA Tuskegee University Center for Food and Environmental Systems for Human Exploration of Space, 1985-2005
USAID, Scientific Liaison Officer, Asian Vegetable R & D Center, Taiwan, 1989-1997
USDA Agricultural Biotechnology Research Advisory Committee, 1992-1996
Visiting Scientist: NASA Kennedy Space Center, 1987; Int Inst Tropical Ag, Nigeria, 1985; Purdue University, Dept of Agronomy, 1981

SELECTED AWARDS/HONORS

Honor Societies: Phi Beta Kappa, Sigma Xi, and Gamma Sigma Delta
Inducted into the USDA, National Institute of Food and Agriculture (NIFA) Hall of Fame, 2016
Award for Excellence in Leadership, 2016 APLU Experiment Station/Association of Research Directors,
Abraham Lincoln Award for Exceptional Achievement, 2016, USDA/Rural Development
George Washington Carver Distinguished Service Award, 2016, Iowa State University CALS
Lighthouse Award, 2011, Black Belt Community Foundation, Community Associates
Distinguished Achievement in Agriculture Award of Merit, 2010, Gamma Sigma Delta
Lifetime Service Award, 2007, Rural Coalition; Humanitarian Award, 2007, Rural Advancement Fund
Honoring Ten -Tribute, 2006, Southern Rural Development Initiative (SRDI)
Service to Agriculture Award, Alabama Farmers Federation, 2005; Award of Honor, Farm Credit Bank of Texas, 2005
Diversity Award, Council on Chemical Research, 2004; Irving Outstanding Leadership Award, ADEC, 2004
Honorary Doctorate of Science Degree, Lake Forest College (LFC), Illinois, 2001; Alumni Distinguished Service Citation, LFC, 1986
USDA Award for Superior Service, Distinguished Scientific Research, 1996; Carver Recognition Team, 2000
Leadership and Administration Award, American Society for Horticultural Science Southern Region, 1997
African American Achiever in Agriculture, Chicago Museum of Science and Industry, 1996
Alumni Merit Award, University of Illinois, College of Agriculture, 1995
R.W. Brown Distinguished Scientist Research Award, Sigma Xi Scientific Honor Society, 1991
Fellow, American Society of Agronomy (ASA), 1992; Outstanding Minority Educator Award, ASA, 1990
Futurist in Science and Technology, Black Enterprise Magazine, 1990
Kellogg Fellow, National Center for Food and Agricultural Policy, 1988
Faculty Award for Excellence in Science and Technology, The White House Initiative on HBCU's, 1988
Faculty Achievement Award, Tuskegee University, 1985
Distinguished Scholar Award, United Negro College Fund/MacArthur Foundation, 1984 Distinguished
Service Award for Faculty Advisement, G.W. Carver Plant and Soil Science Club, 1982 Plucknett
Outstanding Research Paper Award, International Society of Tropical Root Crops, 1983 Danforth
Associate, for Excellence in Undergraduate Teaching, Danforth Foundation, 1980
Excellent Rating as a Science Teacher, Chicago Board of Education, 1971
Ford Foundation Fellowship, University of Chicago, 1968-70
Iron Key (Leadership) Honor Society, Lake Forest College, 1968
Academic Scholarship, Lake Forest College, 1964-68
Lettered in Basketball, Lake Forest College, 1964-67

PATENTS

Morris, C., P. Loretan, C. Bonsi, W. Hill. 1989 and 1993. Moveable root contact/pressure plate assembly for hydroponic systems. U.S. Patent and Trade Office. Patent Nos. 4,860,490 and 5,216,836.

JOURNAL ARTICLES

- Hill, Walter A., Thomas Turner, Miles D. Robinson, Barrett Vaughan, Tasha M. Hargrove, John Brown, Gertrude Wall, and Raymon Shange. Small Farmer Cooperative-Larger Farmer-Commercial Retailer Partnership. 2016. PAWJ: Vol. 4: No.2, Article 7.
- Wall, Gertrude, Walter A. Hill, Tasha M. Hargrove, Barrett Vaughan, Franklin Quarcoo, and Miles D. Robinson. 2016. The Challenges of Developing a Successful Cooperative through an Integrated Resource Approach: Small Farmer-Tuskegee University-Walmart Project. PAWJ: Vol. 4: No.2, Article 3.
- Mortley, Desmond, Douglas Hileman, Conrad Bonsi, Walter Hill, Carlton Morris. 2016. Yield and Growth Responses of Two Hydroponically-Grown Sweetpotato Subjected to Interrupted Light. HortSci. 51(12) 1479-1481.
- Hill, Walter A., 2015. Nexus 2014/15: Carver 150th, Cooperative Extension 100th and 1890 Land Grant 125th Birth Year Anniversaries. PAWJ: Vol3: No. 1, Article 4.
- Karine Z. Nyiawung, Desmond G. Mortley, Abukari Issah, Marceline Egnin, Conrad K. Bonsi, Walter A. Hill, Barrett T. Vaughan. 2014. Screening Sweetpotato Breeding Clones [*Ipomoea batatas* (L.) Lam] as a Suitable Potential Source of Feedstock for Bioethanol Production. J. Alt. Energy Sources. Vol. 5 (3):6-12.
- Walter A. Hill, Raymon Shange, Miles Robinson, and Tasha M. Hargrove. 2014. A Transformative Partnership between Socially and Historically Disadvantaged Farmers, 1890 Land Grant Institutions, and Walmart. PAWJ: Vol. 1: No.2, Article 1
- Raymon Shange, Richard Martin, Victor Khan, Kwesi Daniels, George X. Hunter, Gwendolyn J. Johnson, Steve Musser, William Puckett, and Walter A. Hill. 2014. Extending Sustainable Irrigation Opportunities to Socially and Historically Disadvantaged Farmers in the Alabama Black Belt to Support Commercial-Level Production. PAWJ: Vol. 1: No.2, Article 2.
- Tasha M. Hargrove, Walter A. Hill, John Brown, Miles Robinson, Iris Cole-Crosby, Elizabeth Myles, Billy Lawton, and Karla Martin. 2014. A Case Study Analysis of a Regional Food System: The Sustainable Agriculture Consortium for Historically Disadvantaged Farmers Program. PAWJ: Vol. 1: No.2, Article 3.
- Miles Robinson, John Brown, Alice Paris, Walter A. Hill, Tasha M. Hargrove, Barrett Vaughan, Raymon Shange, Al Hooks, Demetrius Hooks, Thomas Turner, Bobby England, and Audrey Zeigler. 2014. Small Farmers Agricultural Cooperative Launched. PAWJ: Vol. 1: No.2, Article 4.
- Gertrude D. Wall, Walter A. Hill, Barrett Vaughan, Barbara Shipman, Assata Maat, Rose Hill, and Shirley Tyson. 2014. Alabama's Women in Agriculture: The Road to GAPs Harmonization and Global Addendum - Tuskegee's Walmart Initiative. PAWJ: Vol. 1: No.2, Article 5.
- Barrett Vaughan, Audrey Zeigler, Gertrude D. Wall, Miles D. Robinson, William A. Hodge, Conrad O. Bonsi, Ntam R. Baharanyi, and Walter A. Hill. 2014. Case Study of a Food Safety/Good Agricultural Practices (GAPs) Educational Program for Small and Limited Resource Produce Farmers. PAWJ: Vol. 1: No.2, Article 6.
- Walter A. Hill, Jillian Hishaw, and Tasha M. Hargrove. 2013. Socially Disadvantaged Farmer Issues can be Addressed When Diverse Frontline Agricultural Workers Proactively Work Together. PAWJ: Vol. 1: No.1, Article 3
- Mortley D.G., Jun-Hyun Oh, D.S. Johnson, C.K. Bonsi, and W.A. Hill. 2012. Influence of harvest intervals on growth responses and fatty acid content of purslane (*Portulaca oleracea*) HortScience Vol 47(3):437-439.
- Huang, Z., B. Wang, D.G. Mortley, T. Mindingall, C.K. Bonsi, W.A. Hill, and C.E. Morris. 2011. Chemical characteristics of essential oil from five basil cultivars grown hydroponically in a controlled environment using the nutrient film technique. Intl. J. Applied Sci. Tech. Vol. 1 (6) 45-49.
- McArthur, J., W. Hill, G. Trammel, C. Morris. 2010. Gardening with youth as a means to develop science, work and life skills. Children, Youth and Environments 20:301-317.
- Mortley, D.G., S. Burrell, C.K. Bonsi, W.A. Hill, and C. E. Morris. 2009. Influence of Daily Light Period and Irradiance on Yield and Leaf Elemental Concentration of Hydroponically Grown Sweetpotato. HortScience 44: 1491-1493.
- Mortley, D.G., C.K. Bonsi, W.A. Hill, C. Morris, C.S. Williams, C.F. Davis, J.W. Williams, L.H. Levine, B.V. Peterson and R.M. Wheeler. 2008. Influence of microgravity on environment on root growth, soluble sugars and starch concentration of sweetpotato stem cuttings. J. Amer. Soc. Hort. Sci. 133:327-32.
- Trotman, A., J., Barfus, C. Morris, W. Hill, et al., 2004. SLSTP: Developing human capital for space exploration through systematic scholarship. SAE Tech Paper Series 2004-01-2422
- Mortley, D.G., C.K. Bonsi, W.A. Hill and C.E. Morris. 2004. Temperature Influences Yield, Reproductive Growth, Harvest Index and Oil Content of Hydroponically Grown Georgia Red Peanut Plants. HortScience 39: 975-978.
- Mortley, D.G., C.K. Bonsi, W.A. Hill and C.E. Morris. 2003. Inverse temperature studies to reduce canopy growth of sweetpotato. SAE Technical Paper Series No. 2003-01-2679
- Mortley, D.G., C.K. Bonsi, W.A. Hill, C.E. Morris. 2002. Daily light period influences pod yield, harvest index and flowering of peanut grown in NFT. SAE Tech Paper Series 2002-01-2488.
- Mortley, D., J. Hill, C. Bonsi & W. Hill. 2001. Nutrient management of sweetpotato grown in NFT. Act Hort. 548:567-574.
- Mortley, D., J. Hill, D. Hileman, C. Bonsi & W. Hill. 2001. Light & CO2 interaction on peanut grown in NFT. Acta Hort 543: 327-334.
- Mortley, D. G.J. H. Hill, C. K. Bonsi, W. A. Hill and C. E. Momm. 2001. Using mass balance techniques to manage nutrition of hydroponically-grown sweetpotato [*ipomoea batatas* L.) Lam]. SAE Technical Paper Series No. 2001-01-2274.
- Mortley, D. G., J. H. Hill, C. K. Bonsi, W. A. Hill and C. E. Morris. 2001. Response of peanut (*Arachis hypogae* L) to increasing levels of blue light. SAE Technical Paper Series No. 2001- 01-2275.
- Mortley, D., C. Bonsi, P. Loretan, W. Hill and C. Morris. 2000. High relative humidity increases yield, harvest index, flowering, and gynophore growth of hydroponically grown peanut plants. HortScience, 35:46-48.
- Stanciel, K., D. Mortley, D. Hileman, P. Loretan, C. Bonsi and W. Hill. 2000. Growth, pod and seed yield, and gas exchange of hydroponically grown peanut in response to CO2 enrichment. HortScience 35:49-52.
- Mortley, D.G., H.A. Aglan, C.K. Bonsi and W.A. Hill. 2000. Growth of sweetpotato in lunar and mars simulants. SAE Technical Paper Series No. 2000-01-2289.
- Rowell, T., D.G. Mortley, P.A. Loretan, C.K. Bonsi, and W.A. Hill. 1999. Continuous daily light period influence peanut yield in nutrient film technique. Crop Sci. 39:1111-1114.
- Aglan, H., D. Mortley, A. Trotman, P. Loretan, and W.A. Hill. 1998. Sweetpotato growth using a microporous tube system with lunar simulant medium. SAE Tech, Paper Ser. No. 981806.

JOURNAL ARTICLES (continued)

- Shi, L., J.Y. Lu G. Jones, P.A. Loretan and W.A. Hill. 1998 Characteristics and composition of peanut oil prepared by an aqueous extraction method. *Life Support and Biosphere Science*, 5:225-229
- Trotman, A.A., P.P. David, C.K. Bonsi and W.A Hill. 1998. Comparison of the elemental composition of sweetpotato grown in a bioreactor effluent and modified Hoagland solution. *Tropical Agriculture* 75: (1) 35-38.
- Mortley, D.G., P.A. Loretan, W.A. Hill, C.K. Bonsi, C.E. Moms, R. Hall and D. Sullen. 1998. Biocompatibility of sweetpotato and peanut in a hydroponic system, *HortSci* 33:1147-1149.
- Trotman, A.A., P.P. David, C.K. Bonsi, W.A. Hill, D.G. Mortley, and P.A. Loretan. 1997. Integrating biological treatment of crop residue into a hydroponic sweetpotato culture. *Adv. Space Res.* 20:1805-1813.
- Wu, W., J. Y. Lu, A.R. Jones, D.G. Mortley, P.A. Loretan, C.K. Bonsi and W.A. Hill. 1997. Proximate composition, amino acid profile, fatty acid composition, and mineral content of peanut seeds hydroponically grown at elevated CO₂ levels. *J. Agric Food Chem* 45: 3863-3866.
- Mortley, D., J. Hill, P. Loretan, C. Bonsi, W. Hill. 1996. Elevated carbon dioxide influences yield and photosynthetic responses of hydroponically-grown sweetpotato. *Acta Hort* 440: 31-36.
- Mortley, D., P.A. Loretan, C.K. Bonsi, W.A. Hill, C.E. Moms. 1996. Growth responses of hydroponically grown sweet potato tolerant and intolerant of a continuous daily light period. *HortScience* 31:209-212.
- David, P. P., A. A. Trotman, D. G. Mortley, C. K. Bonsi, P. A. Loretan, and W. A. Hill. 1995. Foliage removal influences sweetpotato biomass yields in hydroponic culture. *HortScience* 30:1000-1002.
- Agilan, H., E. Smith, R. Tshitahe, D. Mortley, P. Loretan, W. Hill, and R. Prince. 1995. Engineering design analysis of a microgravity chamber with expandable boundaries for root crops. *SAE Tech. Paper* 951707
- Agilan, H., E. Smith, R. Tshitahe, D. Mortley, P. Loretan, W. Hill, and R. Prince. 1995. Microporous membrane nutrient delivery systems for sweetpotato in microgravity. *SAE Tech. Paper* 95108.
- Loretan, P.A., C.K. Bonsi, D.G. Mortley, R.M. Wheeler, C.L. Mackowiack, W.A. Hill, C.E. Morris, A.A. Trotman, and P.P. David. 1994. Effects of several environmental factors on sweetpotato growth. *Adv. Space Res.* 14:277-280.
- Mortley, D. G., C. K. Bonsi, P. A. Loretan, W. A. Hill, and C. E. Morris. 1994. Relative humidity influences yield, edible biomass and linear growth rate of sweetpotato grown hydroponically. *HortScience* 29:609-610.
- Bonsi, C. K., D. G. Mortley, P. A. Loretan, and W. A. Hill. 1994. Temperature and light effects on sweetpotatoes grown hydroponically. *Acta Hort.* 361:527-530.
- Mortley, D.G., C.K. Bonsi, W.A. Hill, P.A. Loretan, and C.E. Morris. 1993. Irradiance and nitrogen to potassium ratio influences sweetpotato yield in nutrient film technique. *Crop Sci.* 33:782-784.
- Grant, P.A., J.Y. Lu, D.G. Mortley, P.A. Loretan, C.K. Bonsi, and W.A. Hill. 1993. Nutrient composition of sweetpotato storage roots altered by frequency of nutrient solution change. *HortScience*. 28:802-804.
- Hill, W.A., D.G. Mortley, C.L. Mackowiack, P.A. Loretan, T.W. Tibbitts, R.M. Wheeler, C.K. Bonsi, and C.E. Morris. 1992. Growing root, tuber and nut crops hydroponically for CELSS. *Adv. in Space Res.* 12(5):125-131.
- Mortley, D.G., C.B. Smith, and K.T. Demchak. 1991. Fertilizer placement affects growth, fruit yield and elemental concentrations and contents of tomato plants. *J. Amer. Soc. Hort. Sci.* 116:659-662.
- Mortley, D.G., C.K. Bonsi, P.A. Loretan, C.E. Morris, W.A. Hill, and C.R. Ogbuehi. 1991. Evaluation of sweetpotato genotypes for adaptability to hydroponic systems. *Crop Sci.* 31:845-847.
- Mortley, D.G., P.A. Loretan, C.K. Bonsi, W.A. Hill, and C.E. Morris. 1991. Plant spacing influences yield and linear growth rate of sweetpotatoes grown hydroponically. *HortScience* 26:1274-1275.
- Mortley, D.G. and W.A. Hill. 1991. Root and foliage yield and N content of fertilizer N independent and dependent sweetpotato. *J. Root Crops.* 17:79-84.
- Mortley, D.G., and W.A. Hill. 1990. Sweetpotato growth and nitrogen content following nitrogen application and inoculation with *Azospirillum*. *HortScience* 25:758-759.
- Hill, W.A., H. Dodo, S. K. Hahn, K. Mulongoy, and S. O. Adeyeye. 1990. Sweet potato root and biomass production with and without nitrogen fertilization. *Agronomy Journal* 82:1120-1122.
- Loretan, P., C. Bonsi, W. Hill, C. Ogbuehi, D.G. Mortley, J. Lu, C. Morris and R. Pace. 1989. Sweetpotato growth parameters, yield components and nutritive value for CELSS applications. *J. Aerospace.* 98:1090-1094.
- Hill, W., P. Loretan, C. Bonsi, C. Morris, J. Lu, C. Ogbuehi. 1989. Utilization of sweetpotatoes in controlled ecological life support systems. *Adv. in Space Research* 9 (8) 29-41.
- Crossman, S. M., and W. A. Hill. 1987. Inoculation of sweet potato with *Azospirillum*. *HortScience* 22(3):420-422.
- Hill, W. A., T. Simpson, M. Collins, E. Counce, W. Frye, K. Hillsman. 1984. Soil Judging Coaches Workshop. *J. Agron. Educ.* 13: 7-12.
- Hill, W.A., P. Bacon, S.M. Crossman, and C. Stevens. 1983. Characterization of N₂-fixing bacteria associated with sweet potato roots. *Canadian Journal of Microbiology* 29: 860-862
- Quamina, J. E., B. R. Phills and W. A. Hill. 1982. Vine production from tuber pieces of various sizes and sections of yam. (*Dioscorea alata* L.). *HortSci.* 17(1): 73-74.
- Quamina, J. E., W. A. Hill and B. R. Phills. 1981. Comparative development of vine cuttings and rooted tuber sprouts from yam. (*Dioscorea alata* L.). *HortSci.* 16(6): 777
- Hill, W. A. 1979. A unit on comparative soil taxonomy for introductory courses in soil classification. *J. Agron. Educ.* 8:33-37.
- Hill, W. A. and H. L. Bohn. 1974. A simple and quantitative greenhouse laboratory method for injecting gases into soil. *Soil Sci. Amer Proc* 38:148
- Hill, W. A., H. L. Bohn and G. V. Johnson. 1974. White phosphorous-ammonia reaction product as a phosphatic fertilizer in limed acid and alkaline soils. *Agron. J.* 66:115-

BOOKS AND MONOGRAPHS

- Hill, W.A., Mortley, D., Bonsi, C. (eds.). *Eureka Moments: 20 Years of Research and Education in Food and Environmental Systems for Human Exploration of Space*. Tuskegee University (In press).
- Tackie, N., R. Zabawa, N. Baharanyi and W. Hill (eds.). 2010. *Facing Global Crisis: Local solutions to Energy, Food and Persistent Poverty*. Tuskegee Univ., AL. pp. 279.
- Jordan, J., E. Pennick, W.A. Hill and R. Zabawa. 2009 (eds.). *Land & Power: Sustainable Agriculture and African Americans*. Sustainable Agriculture Publications, Waldorf, MD. pp. 216.
- Tackie, N., R. Zabawa, N. Baharanyi and W. Hill (eds.). 2008. *Energy, Food and fiber Alternatives: Opportunities for Underserved Communities*. Tuskegee Univ., AL. pp. 136.

BOOKS AND MONOGRAPHS (continued)

- Tackie, N., R. Zabawa, N. Baharanyi, and W. Hill (eds.). 2007. Strategies to Influence the 2007 Farm Bill and Rural Policies: Impact on Diverse Cultures, Rural Communities and Underserved Farmers. Tuskegee Univ., AL. pp. 217.
- Tackie, N., N. Baharanyi, R. Zabawa, and W. Hill (eds.). 2006. Meeting the Challenges to Sustainable Growth and Development of Rural Communities. Tuskegee Univ., AL. pp. 166.
- Hill, W., et al., 2003. Persistent Poverty in the South. Southern Food Systems Education Consortium, Tuskegee Univ., pp. 20.
- Zabawa, R., N. Baharanyi, W. Hill (eds.). 2004, 2002, 2001 (Series). Land, Community & Culture: African American-Asian American Connections [pp. 170]; African American-Hispanic American/Latino Connections [pp. 154]; African American, Native American/Native Alaskan Connections [pp. 170], Tuskegee Univ.
- Stowe, B., J. Glover, W. Hill, D. Jolly, C. Monette, R. Paige and S. Rasmussen. 2000. Research and Education Recommendations for Small Farms. USDA National Agricultural Res., Ext., Educ. & Econ. Advisory Board, pp. 12.
- Zabawa, R., N. Baharanyi, W. Hill (eds.). 2000. Global Food Security: Exploring the Nexus Between Domestic and International Strategies, Tuskegee Univ., AL, pp. 228.
- Baharanyi, N., R. Zabawa, and W. Hill. 2000. Innovative Strategies for viable small farm and rural communities. Tuskegee, University, AL, pp. 166.
- Baharanyi, N., R. Zabawa, W. Hill. (eds.). 1998. Access & Equity Issues in Agriculture & Rural Development. Tuskegee Univ. AL, pp. 333.
- Baharanyi, N., R. Zabawa & W. Hill. (eds.). 1997. Natural Resources and the Environment: Community Development Issues. Tuskegee University, AL, pp. 321.
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