Name: Desmond G. Mortley
Dapartment: Agricultural and Environmental Sciences
Specialty: Production Horticulture/Plant Nutrition
Telephone: (334) 727-8404
Position: Research Professor and Plant & Soil Sciences Coordinator, Department of Agricultural and Environmental Sciences

Education: BS (Hons; Animal Science), Tuskegee University
MS (Plant and Soil Sciences), Tuskegee University
Ph.D., Horticulture (Plant NutritionPhysiology), The Pennsylvania State University

Research Interests: Controlled Environment (greenhouse/ plant growth chambers), Soilless Agriculture (hydroponics, aeroponics, solution cultute; evaluating nutritional and physiological responses of plants to several environmental factors including carbon dioxide – optimal or superoptimal, temperature, light intensity, quality, photoperiod) Functional Genomics (especially genes controlling sweetpotato storage root initiation and development particularly in soilless culture); Sustainable Agriculture (organic vegetable production).

Active Projects

- Organic vs. conventional production of blueberry fruits and selected vegetable crops
- Impact of plasticulture on yield of selected vegetable crops: Use of colored plastic mulches to reduce vector transmission TSWV in selected solanaceous crops.
- Evaluate cultivars and harvesting practices for vegetables of economic importance (tomato, pepper, hot pepper, sweet corn, summer squash, southern pea etc) in the field and containers.
- Identify and evaluate cultural practices for niche new/alternative Asian vegetable crops which can potentially serve as cash crops for Alabama farmers.
- Relationship between endogenous cytokinins N fertilizer rates on sweetpotato storage root initiation and development when grown hydroponically
- Feedstock development for producing ethanol from sweetpotato storage roots and sugar cane

Highlights of Qualifications

- 20 years of experience in controlled environment agricultural basic and applied research.
- Able to work collaboratively in team effort.
- Written and spoken communication skills.

Professional Experience

January, 2000 Present

Research Professor and Plant Sciences Coordinator, Department of Agricultural and Environmental Sciences

August, 2000 to June, 2009

Research Professor and Coordinator, Center for Food and Environmental Systems for Human Exploration of Space

July, 1996 to August, 2000

Research Associate Professor and Coordinator, Center for Food and Environmental Systems for Human Exploration of Space (similar responsibilities as below)

Taught Vegetable Crop Production and Plant Propagation (undergraduate courses) and Advanced Vegetable Crop Production (graduate level).

October, 1990 to June 1996

Research Assistant Professor, and group leader for the Growing Systems and Environmental Factors group Tuskegee University's NASA sponsored Closed Ecological

Life Support Systems (CELSS), research program. Responsibilities included conducting research and supervising the production unit of the CELSS program. Set up greenhouse and environmental chamber experiments on peanuts and sweetpotatoes using hydroponic systems. Evaluate sweetpotato and peanut breeding lines for adaptability to hydroponic systems in CELSS. Conduct plant nutrition studies and provide recommendations for NASA CELSS program on sweetpotatoes and peanuts. Collect, evaluate and analyze data in connection with the growth and environment of these crops. Also conducted field fertilizer/cultural practice studies with tomatoes, vegetable amaranth, and sweetpotatoes.

July, 1988 to September, 1990

Post-Doctoral Research Associate, Closed Ecological Life Support Systems (CELSS),Tuskegee University.

1986 to 1988

Walter Thomas Memorial Fellow, in Plant Nutrition, Dept. of Horticulture, Pennsylvania State University.

Professional Affiliations

American Society for Horticultural Science
Southern Association of Agricultural Scientists
American Society Horticultural Science NCERA 101 Controlled Environment Technology and Use
American Peanut Research and Education Society
Sigma Xi.
International Society for Tropical Root Crops

American Association for Gravitational and Space Biology

Research Grants
Principal Investigator
Sweetpotato Stem Cuttings Database in Preparation for Flight; NASA, $290.621 ('98-'01)
Using Nitrate Accumulated under Plastic Mulch Films through Microbial Transformation for Sweetpotato Production; USDA, $94,000, ('96-'01)

Co-principal Investigator
Center for Food and Environmental Systems for Human Exploration of Space; NASA, $1.2 m per year ('92-'09). CO-PI
Evaluation of Selected Under-utilized African Vegetable Crops by Farmers in Senegal. 1997-1998, US100,000. CO-PI
Monsanto /1890 Vegetable Research Project $20,000 (’07-’09). CO-PI
Using Colored Mulches to Control TSWV in Tomatoes and Peppers, AALGA, $35,000 (’06-’07). PI
Fruit Production for Homeowners and Small Scale Producers Using Organic Methods, AALGA, $25,000 (’07-’08). CO-PI
Accelerating Adoption of Organic farming in Alabama Through Education of Organic Growers and Consumers, $500,000 (’11-’14); CO-PI
Evaluation of New/Alternative Asian Veg. Crops for Agricultural Sustainability in Alabama, AALGA $21,000 (’10-’11); PI
Increasing Sweetpotato Production in Alabama by Evaluating its Potential as a Feedstock for Bioethanol Production, Sate of AL Specialty Crops Grant $25,000, (’10-’12), PI
Systems Approach to Orange Flesh Sweetpotato Technology in Africa, USAID HORTCRSP, $250,000 (’12-’14); CO-PI
Linking DNA Markers to Key Bioenergy Traits in Miscanthus, USDA NIFA CBG; $299.000, (’12-’15)

Awards and Recognitions
Walter Thomas Memorial Fellow, in Plant Nutrition, Pennsylvania State University
Outstanding Research Paper Award in Plant and Soil Science, Association of research Directors (ARD)
United States Department of Agriculture Secretary's Honor Award (Group) USDA, for contribution to the nation’s space program.
Research Achievement Award, Tuskegee University
Faculty Achievement Award, Tuskegee University

Professional Development
Training and Development of Small Businesses in Advanced Technologies – NASA
Technical Assistance and Grants Management Workshop – NASA
ESCOP/ECOP Leadership Development Program

Publications

Abstracts

Mortley, D.G. and W.A. Hill. 1985. Nitrogen use efficiency and associative N2-fixation of sweetpotato genotypes. HortScience 20:665.

Hopkinson, R., D.G. Mortley and W.A. Hill. 1985 Enterobacteriaceae associated with sweetpotato roots. HortScience 20:666.

Bonsi, C.K., P. Loretan, W. Hill, C. Ogbuehi and D. Mortley. 1989. Effects of light intensity on growth and storage root production of sweetpotatoes. HortScience 24:760.

Mortley, D., C. Bonsi, P. Loretan, W. Hill and C. Ogbuehi. 1989. Effects of twophotoperiod and temperature regimes on growth and storage root yield of sweetpotatoes HortScience 24:760.

Mortley, D., C. Bonsi, P. Loretan, C. Morris, W. Hill and C. Ogbuehi. 1989. Preliminary screening of sweetpoato cultivars for adaptability to hydroponic systems HortScience 24:760.

Mortley, D., V. Khan, C. Bonsi, and E. Rhoden. 1990. Influence of fertilizer placement under plastic on yield and nutrient uptake of transplanted tomatoes. HortScience 25:857.

Mortley, D., C. Bonsi, P. Loretan, W. Hill and C. Morris. 1990. Effect of spacing on yield of sweetpotatoes grown using NFT. HortScience 25:857.

Mortley, D., C. Bonsi, P. Loretan, W. Hill and E. Martinez. 1990. Effect of photoperiod and temperature regimes on yield of sweetpotatoes grown using NFT.HortScience 25:858.

Martinez, E., C. Bonsi, W. Hill, D. Mortley and C. Morris. 1990. Effect of continuous vs periodic pH adjustment on growth of GA Jet and TI-155 sweetpotato cultivars grown using NFT. HortScience 25:864.

Morris, C., D. Mortley, P. Loretan, C. Bonsi and W. Hill. 1990. Effect of channel depth on yield of sweetpotatoes grown hydroponically. HortScience 25:856.

Mortley, D., P. Loretan. C. Bonsi, W. Hill and C. Morris. 1991. Sweetpotato growth in response to relative humidity. Hortscience 26:489-490.

Mortley, D.G., C.K. Bonsi, W.A. Hill, P.A. Loretan and C. E. Morris. 1991. Effects of irradiance and N: K ratio on growth of sweetpotato in NFT. HortScience 26:743.

Mortley, D.G. Manganese toxicity and tolerance in sweetpotato. 1992. HortScience. 27:665.

Mortley, D.G., C.K. Bonsi, W.A. Hill, P.A. Loretan, C.E. Morris, A.A. Trotman, and P.P David. 1992. Response of sweetpotato grown in NFT to different photoperiods. HortScience 27:665.

Bidiaka, N., V.A. Khan, C.K. Bonsi, C. Stevens, E.G. Rhoden, D. Mortley, and R. Ankumah. 1992. Patterns of storage and fibrous root development in several sweetpotato cultivars and their progenies. HortScience 27:1172.

David, P.P.,A. Alamzan, C.K. Bonsi, D.G. Mortley, and A.A. Trotman. 1992. Effects of biweekly topping on nutrient content of shoot tips and storage root yield of sweetpotato grown in a NFT system. HortScience 27:1170.

Mckelly, B., E.G. Rhoden, and D.G. Mortley. 1992. Mineral uptake of vegetable amaranth as affected by nitrogen sources. Proc. Caribbean Food Crops Soc. (In Press).

Trotman, A.A., D.G. Mortley, and P.P. David. 1992. Effect of inoculation with *Azospirillum brasilense* on foliage and storage root yield of sweetpotato grown hydroponically in an NFT system. HortScience 27:1170.

Sherif, M. A., P.A Loretan, A.A. Trotman, D.G. Mortley, J.Y. Lu, and L.C. Garner. 1993. Growth of sweetpotato in hydroponic system using split-root channels. HortScience 28:266.

Trotman, A.A., W.A. Hill, D.G. Mortley, P.P. David, and P.A.Loretan. 1993. Response of hydroponically grown sweetpotato to inoculation with *Azospirrilum*. HortScience 28:266.

Trotman, A.A., C.E. Morris, D.G. Mortley, P.P. David, and P.A.Loretan. 1993. A comparative study of hydroponic systems for growing peanut. HortScience 28:267.

Burrell, S., D. Mortley, P. Loretan, L. Garner, A. Trotman, and P. david. 1993. Photoperiod/light intensity interactions on growth of two sweetpotato cultivars in NFT. Hort Science 28:267.

Garner, L., D. Mortley, P. Loretan, A. Trotman, and P. David. 1993. Sweetpotato growth and yield in NFT as affected by type of cutting and planting depth. HortScience 28:267.

Mortley, D.G., .Y. Lu, and P. Grant. 1993. Effect of foliage removal for use as a green vegetable on growth of Georgia Red paenuts. HortScience 28:270.

Mortley, D.G., P.A. Loretan, A.A. Trotman, P.P. David, and L.C. Garner. 1994. Altering nutrient solution N:K ratio to increase yields of sweetpotato grown in NFT. HortScience 29:731.

David, P.P., A.A. Trotman, and D.G. Mortley. 1994. Growth analysis of sweetpotato cultivar grown in an NFT system. HortScience 29:731.

Burrell, S., D. Mortley, P. Loretan, A.A. Trotman, and P.P. David. 1994. Response of three sweetpotato cultivars in NFT to different irradiance levels. HortScience 29:731

Trotman, A.A., D. Douglas, D. Mortley, J. Hill and A. German. 1995. Implications of the continuous use of plant nutrient solution on growth of sweetpotato in NFT. HortScience 30:429.

Seminara, J., D. Mortley, P. Loretan, and B. Smith. 1995. Effect of duration of storing vine cuttings on yield of sweetpotatoes grown in NFT. HortScience 30:429.

Loretan, P., F. Avicki, D. Mortley, and W Horton. 1995. Influence of root zone temperature on growth, yield, and phenology of sweetpotatoes grown in NFT. HortScience 30:429.

David, P. P., A. A. Trotman, D. G. Mortley, D. Douglas, and J. Seminara. 1995. Effects of various nitrate:ammonium ratios on sweetpotato growth. HortScience 30 (4):768

Mortley, D, G., P. A. Loretan, C. K. Bonsi, and W. A. Hill. 1995. Temperature influences yield, leaf expansion and unfolding, and vine growth of sweetpotatoes grown in NFT. HortScience 30(4):785.

Mortley, D.G., J.H. Hill, P.A. Loretan, C.E. Morris, P.P. David, and A.A. Trotman. 1996. Response of Georgia Red peanut to CO_2 enrichment when grown in nutrient film technique (NFT) or in combination with a solid substrate. APRES 28:48.

Stanciel, K., D.G. Mortley, J.H. Hill, and D. Hileman. 1997. Response of Georgia Red peanut to CO_2 enrichment when grown in nutrient film technique (NFT). APRES 29:29

Roweell, T., D.G. Mortley, K. Stanciel, and D. Hileman. 1997. Response of Georgia Red peanuts grown hydroponically to continuous light. and two temperature regimes. APRES 29:28

J.H. Hill, D.G. Mortley, C.K. Bonsi, and W.A. Hill. 1999. Nutrient management of sweetpotato grown in nutrient film technique. Proc. International Symposium on Growing Media and Hydroponics, pp 89.

Mortley, D. G., J.H. Hill, C.K. Bonsi, A.A. Trotman, and W.A. Hill. 1999. Response of sweetpotato grown in nutrient film technique (NFT) to blue light. The 35th Annual Meeting, Caribbean Food Crops Society, St. Lucia, July 25-31, 1999.

Mortley, D.G., D.R. Hileman, J.H. Hill, C.K. Bonsi, and W.A. Hill. 1999. Light and CO_2- interaction on peanut grown in nutrient film technique. Proc. International Symposium on Growing Media and Hydroponics, pp 42.

Gamble, S.D., D.G. Mortley, C.E. Morris, C.S. Williams, J.W. Williams, C.F. Davis and P.A. Loretan. 1999. Effect of clinorotation on sweetpotato stem cuttings. ASGSB Bull .13:68.

Mortley,D.G., C.S. Williams, S.D. Gamble, C.F. Davis and J.W. Williams. 1999. STS-93 space shuttle with sweetpotato stem cuttings. ASGSB Bull .13:71.

Anfield, J., D.G. Mortley and D. Hileman. 2000. Photosynthetic responses to elevated CO2 and relative humidity in peanut grown in NFT. Proc. NANURC Student Conference, p. 33.

Barta, D.J., K. Henderson, D.G. Mortley and D.L. Henninger. 2000. Gas exchange, transpiration and yield of sweetpotato grown in controlled environment. Habitation 7:46.

Gamble, S.D., D.G. Mortley, C.S. Williams, J.W. Williams, C.F. Davis. 2000. Clinorotation influences root growth and ultrastructures of sweetpotato stem cuttings. ASGSB Bull .13:71.

Mortley, D.G., H.A. Aglan, C.K. Bonsi, W.A. Hill and C.E. Morris. 2000. Growth of sweetpotato in lunar and mars stimulants. Proc. 30th Intl. Conf. Environ. Systems, p 485.

Mortley, D.G., J.H. Hill, C.K. Bonsi and W.A. Hill. 2000. Inverse day/night temperature influences yield and canopy height of hydroponically grown sweetpotato. HortScience 35:431.

Mortley, D.G., J. Anfield, D. Hilemen, J.H. Hill, C.K. Bonsi, W.A. Hill and C.E. Morris. 2000. Yield and photosynthetic responses to elevated CO2 and relative humidity in peanut grown in NFT. Habitation 7:53.

Scott, T.L., J.H. Hill, D.G. Mortley and C.K. Bonsi. 2000. Early of peanut xultivars in controlled environments. Proc. NANURC Student Conf., p 46.

Mortley, D.G., J.H. Hill, C.K. Bonsi, W.A. Hill and C.E. Morris. 2001. Response of sweetpotato and peanut to low mars ambient photosynthetic photon flux (PPF) HortScience 36:485.

Mortley, D.G., J.H. Hill, C.K. Bonsi, W.A. Hill and C.E. Morris. 2001. Using mass balance techniques to manage nutrition of hydroponically-grown sweetpotato *[Ipomoea batatas (L) Lam.]* Proc. 31st Intl. Conf. Environ. Systems p.70.

Mortley, D.G., J.H. Hill, C.K. Bonsi, W.A. Hill and C.E. Morris. 2001. Response of peanut (Arachis hypogeal L.) to increasing levels of blue light. Proc. 31st Intl. Conf. Environ. Systems p.70.

Rhoden, E.G. and D.G. Mortley. 2001. Evaluating Egyptian peanut cultivars for use in the space program. Proc. Caribbean Food Crops Soc. p. 33-34.

Alvarez, M.N., D. Mortley, C. Bonsi and J. Hill. 2002. A rapid assessment technique for the screening of sweetpotato for use in bioregenerative life support applications. Proc. 32nd Intl. Conf. Environ. Systems.

Mortley, D.G., C.K. Bonsi, W.A. Hill and C.E. Morris. 2002. Daily light period influences pod yield, harvest index, and flowering of peanut grown in nutrient film technique. Proc. 32nd Intl. Conf. Environ. Systems.

Hileman, D.R., J. E. Wesley, and D. G. Mortley. 2002. Canopy photosynthesis of potential food crops for space missions. Proc. Ecological Society of America, August 4-9.

Mortley, D.G., C.K. Bonsi, W.A. Hill, and C.E. Morris. 2003. Inverse temperature studies to reduce canopy growth of sweetpotato 33rd ICES pp.133

Karanja, P., M. Egnin, L. S. Crawford, D. Mortley, J. Williams, and C. Williams. 2004. Molecular Approach To The Process Of Sweetpotato (Ipomoea batatas L.) Microstorage Root Production In Vitro. In Vitro Cell and Dev. Biol. 40: 36A.

Mortley, D.G., M. Egnin, C.K. Bonsi, W.A. Hill, and C.E. Morris. 2006. Impact of t-zeatin riboside on early storage root development of four sweetpotato cultivars. Proc. 14th Triennial Symposium Intl. Soc. Tropical Root Crops, Nov. 20-26, 2006, Trivandrum, India, pp 220-221.

Egnin. M., G. Hui, D. Mortley, J. Scoffield, S. Jack, and B. Bey. 2007. Gene expression profiling and the physiological role of t-Zeatin riboside (ZR) in sweetpotato storage root initiation and enlargement. HortScience 42:976.

Mortley, D.G., L. McCoy, D. Poritz, J. Hill, C. Bonsi, and W. Hill. 2007. Application of response surface methodology to determine the influence of irradiance and CO_2 concentration on yield of carrot grown hydroponically. HortScience 42:922.

Mortley, D.G., J.H. Hill, C.K. Bonsi, W.A. Hill, C. Morris. 2007. Screening carrot (Daucus carota L.) cultivars for yield and betacarotene content in a nutrient film technique hydroponic system. P 14. Proc. 32nd Intl. Carrot Conference, Arcachon, (Bordeaux) France, September 5-7, 2007.

Gichuhi, P.N., C.S. Hathorn, D. Mortley, and A.C. Bovell-Benjamin. 2009. Hydroponic carrots: Nutritional properties of four cultivars grown under different light and CO_2 conditions. Association of Research Directors' 15th Biennial Research Symposium 2009, Atlanta, GA, March 28-April 1st, 2009.

Mortley, D.G., L. McCoy, C.K. Bonsi, W.A. Hill, and C.E. Morris. 2009. Response of four carrot cultivars to light and supraoptimal CO_2. 33rd International Carrot Conference, Anaheim CA, Jan. 18-21.

Mortley, D.G., C. Bonsi, E. Bonsi, K. Aanah, and S. Wahab. 2009. Yield and sensory attributes of four sweet corn varieties in South Central Alabama. HortScience. 44:1133.

Papers Published

1. Hill, W.A., D.G. Mortley, and S. M. Crossman. 1985. Fertilizer N independent and dependent sweetpotato cultivars. Proc. 7th Intl. Symp. on Tropical Root Crops. p 703-713.

2. Loretan, P., C. Bonsi, W. Hill, C. Ogbuehi, D. 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.

3. Ogbuehi, C., P. Loretan, C. Bonsi, W. Hill, C. Morris, P. Biswas, and D. Mortley. 1989. Effect of bi-weekly shoot tip harvests on the growth and yield of GA Jet sweetpotato grown hydroponically. Proc. NASA-HBCU Space Science and Engineering Research Forum. p 9-14.
4. Morris, C., E. Martinez, C. Bonsi, D. Mortley, W. Hill, C. Ogbuehi and P. Loretan. 1989. Effect of channel size on sweetpotato storage root enlargement in the Tuskegee University hydroponic system. Proc. NASA-HBCU Space Science and Engineering Research Forum. p 15-19.

5. Loretan, P., C. Bonsi, D. Mortley, C. Ogbuehi, W. Hill and C. Morris. 1989. Effects of periodic harvesting of storage roots and shoot tips on growth and yield of sweetpotatoes grown hydroponically. Proc. 4th Triennial Symp. Intl. Soc. Tropical Root Crops - Africa Branch, Dec. 4-8, 1989, Zaire.
6. Bonsi, C., P. Loretan, D. Mortley, W. Hill, C. Ogbuehi, E. Martinez, and C. Morris. 1989. Temperature and light effects on growth of sweetpotatoes using NFT. 4th Triennial Symp. Intl. Soc. Tropical Root Crops - Africa Branch, Dec. 4-8, 1989, Zaire.
7. Mortley, D.G., and W.A. Hill. 1990. Sweetpotato growth and nitrogen content following nitrogen application and inoculation with Azospirillum. HortScience 25:758-759.
8. 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.
9. 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.
10. 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.
11. 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.
12. Mortley, D. G., V.A. Khan, and C.K. Bonsi. 1991. Effects of fertilizer placement under plastic on yield of transplanted tomatoes. Proc. Amer. Soc. Plasticulture. 23:199-203.
13. Khan, V.A., C. Stevens, J.Y. Lu, D. Mortley, M.K. Kabwe and Z. Huang. 1991. Response of watermelon and okra yields when grown under two types of plastic mulch, vispore row cover and three levels of nitrogen. Proc. Amer. Soc. Plasticulture. 23:139-145.
14. Khan, V. A., C. Stevens, J. Y. Lu, D. Mortley, M. K. Kabwe, and Z. Huang. 1991. Double planting of collard greens and VisPore row cover. Proc. Natl. Agric. Plastics Congr. 23:134-138.
15. 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.
16. Mortley. D.G., E.G. Rhoden, and V.A. Khan. 1992. Plant spacing influences yield of vegetable amaranth. Acta Hort. 318:217-223.

17. Bonsi, C.K., P.A. Loretan, W.A. Hill and D.G. Mortley. 1992. Response of sweetpotatoes to continuous light. HortScience. 27:471.
18. Rhoden, E.G., V.A. Khan, D.G. Mortley, and P. David. 1992. Production of selected exotic food crops in Alabama. Proc. 49th Ann. Profesional Agric. Workers Conf. p 95-104.
19. 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.
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21. Carlisle, E. R., D. G. Mortley, P. A. Loretan, C. K. Bonsi, W. A. Hill,C. E. Morris, and A. A. Trotman. 1992. Effect of flow rate on hydroponically-grown sweetpotatoes. In Sweetpotato Technology for the 21st Century pp 160-161.
22. Martinez, E. R., C. K. Bonsi, P. P. David, D. G. Mortley, W. A. Hill, P. A. Loretan, and C. E. Morris. 1992. Effect of constant pH vs periodic pH adjustment of nutrient solution on yield of sweetpotato using NFT. In Sweetpotato Technology for the 21st Century pp 171-173.
23. Mortley, D., C. Bonsi, P. Loretan, W. Hill, E. Carlisle, and C. E. Morris. 1992. Effects of relative humidity on sweetpotato growth in an NFT system. In Sweetpotato Technology for the 21st Century pp 173-177.
24. Grant, P., J. Lu, D. Mortley, P. Loretan, C. Bonsi, W. Hill, and C. Morris. 1992. Nurtitive composition of sweetpotatoes grown in NFT with different nutrient solution application protocols. In Sweetpotato Technology for the 21st Century pp 439-444.
25. 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.
26. Rhoden, E.G., B. McKelly, and D.G. Mortley. 1994. Mineral uptake of vegetable amaranth as affected by nitrogen sources. Proc. Caribbean Food Crops Society 28:(In Press).
27. Mortley, D. G. 1993. Mangansese toxicity and tolerance in sweetpotato. HortScience 28:812-813.
28. 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.
29. 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.
30. 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.
31. David, P. P., A. A. Trotman, D. G. Mortley, C. K. Bonsi, P. A. Loiretan, and W. A. Hill. 1995. Foliage removal influences sweetpotato biomass yields in hydroponic culture HortScience 30:1000-1002.
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33. Aglan, H., E. Smith, R. Tshitahe, D. Mortley, P. Loretan, W. Hill, and R. Prince. 1995. Microporous membrane nutrient delivery systems for sweetpotato in microgravity. SAETech. Paper 95108.
34. Sherif, M.A., P.A. Loretan, A.A. Trotman, D.G. Mortley, J.Y. Lu and L.C. Garner. 1995. Split root nutrition of sweetpotato using hydroponics. Acta Hort. 410:121-130.
35. Alamazan, A. M., D. G. Mortley, and P. Grant. 1996. Sugar beet grown using nutrient film technique: yield and nutritional quality. J. Sci. Food Agric. 70:369-372.
36. Mortley, D. G., P. A. Loretan, C. K. Bonsi, W. A. Hill, and C. E. Morris. 1996. Growth responses of hydroponically grown sweetpotato tolerant and intolerant of a continuous daily light period. HortScience 31:209-212.
37. Mortley, D., J. Hill, P. Loretan, C. Bonsi, W. Hill, D. Hileman, and A. Terse. 1996. Elevated carbon dioxide influences yield and photosynthetic responses of hydroponically-grown sweetpotato. Acta Hort.40:31-36.
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