

SIXTO MARQUEZ

Vegetable and Fruit Improvement Center, Texas A&M University

E-mail address: sixto46@tamu.edu; sixtomarquez46@gmail.com.

OBJECTIVE

To obtain a position with a focus with the business, non-profit, or governmental sector utilizing my knowledge of sciences and my experience.

EDUCATION

PhD Horticulture-Plant Breeding at Texas A&M University (graduation-May 14, 2022)

Masters in Agriculture

Alcorn State University, Ms.

Overall GPA: 3.57 Graduation May 2007

Various English Courses

State University of New York at Albany Years 2001 and 2002

French courses

Electricity course, Academia Americana, Caracas, Venezuela

April 2014 – April 2015

French courses. EC Institute, Montreal February-December 2013

Alliance Francaise, Toulouse July-August 2014

Applications and Analyses of Mycorrhizal Associations

University of Florida, Gainesville, Florida

July 10-12, 2017.

B.S. Agricultural Engineering

Universidad Central de Venezuela

Overall GPA: 3.00 December 2001

WORK HISTORY

Texas A&M University. Post-Doctoral Research Associate. May 2022-present.

- Isolating phytochemical compounds at the Vegetable and Fruit Improvement Center located in Texas A&M University.
- Doing field and greenhouse work at the HortTrec facilities of Texas A&M university.
- Extracting DNA and running gels to identify markers related to resistance to bacterial diseases in peppers.

Prairie View A&M University January 2016- May 11, 2018

Research Specialist

- Managing Greenhouses located at the experimental farm.
- Preparing rows in fields.
- Planting, spraying, fertilizing, and harvesting crops such as okra, melons, strawberries, peppers, and tomatoes.

Texas A&M University January 2010- December 2012.

Research Associate.

- Managing greenhouses located at The Vegetable and Fruit Improvement Center, Department of Horticultural Sciences.
- Planting, spraying, fertilizing, and harvesting crops such as peppers, tomatoes, watermelons, and onions in greenhouses.
- Helping plant breeders make crosses on crops such as onions, tomatoes, peppers and cucurbits and set up trials in fields and greenhouses.
- Doing field work, such as harvesting and sampling watermelons plants.
- Extracting and processing grapefruit, pepper, tomato, and onion seeds.
- Isolating and purifying phytochemical compounds in the chemical analytical laboratory located at the Vegetable and Fruit Improvement Center.

Louisiana Tech University. October 2007-December 2009.

Greenhouse Manager.

- Installing, programming, and maintaining computerized control equipment in greenhouses.
- Growing poinsettias and bedding plants.

Graduate Research Assistant

Texas A&M University June 2018-May 2022

- Conducting research on melons as a part of PhD program to develop resistant varieties to vine decline disease using marker assisted and phenotypic selection.

Alcorn State University, Mississippi, January 2005-2007

- Performed laboratory duties such as using gas chromatography equipment, solar sensor equipment (accupar), pH meter, refractometer, and the weather station equipment.
- Performing field duties such as planting (eggplant, pepper, cauliflower and Mustard), taking field data on growth parameters on different crops (muscadine grapes, peaches, plums, blueberries, eggplant, pepper, cauliflower, and watermelon), assisting farm manager in doing agronomic activities such as fertilizing, mulching, spraying, weeding, watering, and harvesting crops.
- C-Factor research (cover and management) on horticultural crops for erosion prediction, nutrient management, and conservation planning as well as prevention of soil erosion and climate change (master's in sciences level).

Research Experience

- Cross-pollinating intra and inter specific pepper species for the doctoral dissertation titled “Genotypic Variation in Yield and Quality Traits of Chili pepper Breeding”. Year 2003
- Bachelors Science Thesis titled “Effects of Irrigation on Four Varieties of Sesame” at Universidad Central de Venezuela. Years 1999- 2000.
- Growing Tropical crops such as Cassava, Sweet Potato and Taro to conduct experiments as a part of courses requirements at Universidad Central de Venezuela. Years 1998-1999.
- Master’s Thesis research titled “Plant Density Effect of Organic Eggplant (*Solanum melongena* L) on Yield, and Biomass Development and Soil Loss Prediction” at Alcorn State University. Years 2005 - 2007.

Albany, New York, Year 2001

- Performed basic activities at Fratello’s Restaurant.

PUBLICATIONS

Jayaprakasha, G.K., G, Nagama Gowda., S, Marquez, and Bhimanagouda S. Patil. 2013. Rapid separation and quantification of curcuminoids combining pseudo two-dimensional liquid flash chromatography and NMR spectroscopy. *Journal of Chromatography*.237:25-32.

Marquez, S. A and G.K, Panicker. Plant density effect of organic eggplant (*Solanum melongena* L.) on yield, biomass development and soil loss prediction. *Mississippi Academy of Sciences Journal*. 2017. 62(4): 378-391.

Mora-Gutiérrez, A., R, Attaie., M, T., Núñez de González., Y, Jung., S, Woldesembet and S. A, Marquez. Complexes of lutein with bovine and caprine caseins and their impact on lutein chemical stability in emulsion systems: effect of arabinogalactan. 2018. *Journal of Dairy Science*. 101(1): 18-27.

Mora-Gutiérrez, A., R, Attaie., M, T., Núñez de González., Yoonsung Jung, and Sixto A. Marquez. Interface Compositions as Determinants of Resveratrol Stability in Nanoemulsion Delivery Systems. 2020. *Foods*. 9(10): 1934.

Mora-Gutierrez, Adela., Sixto A. Marquez., Rahmat Attaie., Maryuri T. Núñez de González., Yoonsung Jung., Selamawit Woldeesenbet., and Mahta Moussavi. 2022. Mixed Biopolymer Systems Based on Bovine and Caprine Caseins, Yeast

Marquez, S.A., Crosby, K., Patil, B., Avila, C., Ibrahim, AMH., Pessoa, H and Singh, J. 2023. Hydroxy proline and gamma aminobutyric acid: markers of susceptibility to vine decline disease caused by the fungus *Monosporascus cannonballus* in melons (*Cucumis melo* L). *PeerJ* 11: e14932 <http://doi.org/10.7717/peerj.1432>.

Marquez, S.A., J. Jifon., K.M, Crosby., Avila, C.A and Ibrahim, A.M.H. 2023. Heterosis of vine decline disease resistance caused by the fungus *Monosporascus cannonballus* in melons (*Cucumis melo* L). *Agricultural Sciences*. 14: 629-635
<https://doi.org/10.4236/as.2023.145042>.

Crosby, M., S, Marquez., J, Jifon., D, Ileskovar., J, Singh and B, Patil. 2023. Supermelon and flavorific: two new hybrid muskmelon cultivars with resistance to *Monosporascus cannonballus* from Texas A&M AgriLife Research. *HortScience*. 58(7): 804-807.
<https://doi.org/10.21273/HORTSC117116-23>.

Marquez, S.A., Crosby, K.M., Patil, B.S., Avila, C.A., Ibrahim, A.M.H., Pessoa, H.P and Singh, J. 2023. Phthalic acid and its role in roots of melon plants (*Cucumis melo* L). *Phytofrontiers*. In press.

CONFERENCES

American Society of Horticultural Sciences (ASHS). Annual Meeting. Denver, Colorado, August 5-9. 2021:

Generation Means Analysis of Vine Decline Disease Resistance in Melons (*Cucumis melo* L). *HortScience*. 2021. 56 (9): 104. Poster Presentation

Developing High Quality Muskmelon Hybrids with *Monosporascus Cannonballus* Resistance. 2021. *HortScience*. 56 (9): 126. Oral Presentation.

American Society of Horticultural Sciences (ASHS) Southern Region. Annual Meeting. New Orleans, February 11-13, 2022:

Amino Acid Production in Vine Decline Susceptible and Resistant Melon Plants (*Cucumis melo* L) during Plant-Pathogen Interactions. Oral presentation.

HONORS AND AWARDS

Diploma as an outstanding student. Years 1998 and 1999 at Universidad Central de Venezuela.

LINGUISTIC SKILLS

Fluent spoken and written Spanish.

Proficient at speaking and writing French.

COMPUTER PROFICIENCY

Microsoft Word, Excel, Power Point, JPM and SAS