

ANDRES MAYORGA

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Career Profile

Agronomist / Horticulturist with experience in plant research including molecular biology techniques and plant production on vegetable crops on different growing systems.

Core competencies include Project Management, Plant Nutrition, Weed Management, Disease Prevention, Pest Management and Identification, Plant Physiology, Risk Analysis, Statistical Analysis, Food Security.

Work Experience

Research Assistant, UGA, Dept. of Horticulture, Jan 2017-present

- Gained experience in vegetable physiology and production with an emphasis on development of physiological disorders in bell pepper
- Evaluated 17 bell pepper varieties in field and greenhouse for total yield, marketable fruit, susceptibility to blossom end-rot and postharvest water loss
- Studied effect of various substrates and plant growth regulators on fruit size and incidence of BER in greenhouse
- Performed RNA extraction and RT-PCR to determine the interaction between fruit growth rate, cell expansion, *Expansin* genes expression and fruit calcium accumulation
- Performed statistical analysis of data using excel and R Statistical Computing
- Prepared reports, presentation and graphics for growers and scientific conferences

Teaching Assistant, Organic Gardening (online), Dept. of Horticulture, Spring 2017

- Answered student queries and graded exams and projects

Account Manager, Grower owned Company, Simijaca, Colombia, July 2015-Dec 2016

- Managed up to 20-25 field workers during potato production and harvest
- Supervised potato production from sowing to commercialization for the industry
- Established budgets for potato production using Excel and graphics
- Revised and calculated fertilization and insecticide rates for carrot, potato and onion crops

Teaching Assistant, National University of Colombia, Basics of Plant Physiology, Dept. of Agricultural Sciences, Bogotá, Colombia, Feb-June 2015

- Monitored and assisted 40 students with class projects
- Supervised 10 fertilization regimes in hydroponic systems and Scouted for nutritional deficiencies and imbalances

Research Assistant, Purdue University, Dept. of Horticulture, West Lafayette, IN, June-Dec 2014

- Research focus on apple buds as an early estimator of flower and fruit production (with Dr. Peter Hirst)
- Evaluated apple root stocks, sample collection and help with other experiments
- Collaborated with Engineering students on how to phenotype apple trees for their project

Research Assistant, National University of Colombia, Entomology, Dept. of Agricultural Sciences, Bogotá, Colombia, Jan-June 2012

- Supervised about 20 students on insect identification
- Identified, implemented capture and preservation techniques on agriculturally important insects to implement integrated pest management (IPM)

Other Research Projects

- UGA. Advanced Plant Physiology. 2018. Looking at the effect of two different lighting levels on growth, development and flowering related genes on wheat plants.
- UGA. Environmental Plant Physiology. 2017. Determining the effect of 4 different shading levels on growth and development of 2 tomato varieties.
- UNAL. Fertility Management. 2013. Determining the effect of different sodium sources on growth and development of lettuce (Hydroponic medium).
- UNAL. Plant Physiology. 2012. Determining the effect of waterlogging stress during 4 different developmental stages on growth and development of radish (Hydroponic nutrition on peat moss).

Education

M.S. Horticulture, University of Georgia, Athens, GA, 2019

B.S. Agronomy, National University of Colombia (UNAL), Bogotá, Colombia, 2015

Presentations

Scientific Presentations

- Mayorga-Gómez, A., Díaz-Pérez, J., Coolong, T. and S. Nambeesan. Fruit growth rate and calcium accumulation: factors affecting blossom-end rot development in Bell Pepper. South East Regional Fruit and Vegetable Conference. Savannah, GA, 2019.
- Mayorga-Gómez, A., Díaz-Pérez, J., Coolong, T. and S. Nambeesan. *EXPANSINS* and its role in cell elongation during blossom-end rot development in bell pepper. American Society for Horticultural Science (ASHS) annual meeting, Washington D.C., 2018.
- Mayorga-Gómez, A., Díaz-Pérez, J., Coolong, T. and S. Nambeesan. Incidence of blossom-end rot (BER) and calcium accumulation during fruit development in bell pepper varieties. ASHS South Region, Jacksonville, FL, 2018.
- Mayorga, A. and P. Hirst. “Floral Commitment and morphogenesis in ten apple cultivars” Department of Horticulture, Purdue University, West Lafayette, IN, 2014.

Grower Meetings

- Coolong, T. and A. Mayorga-Gómez. Vegetable Production Updates. Approx. attendance 80 growers. – Colquitt County, GA Jan. 9, 2018.

Service

International Student Advisory Board, UGA, Aug 2018- present

- Offer suggestions and serve as a bridge between the international student body and the administration from different areas of the University of Georgia.

Skills

Computer: MS Office, SAS Statistical Analysis System, R Statistical analysis software, @Risk (Risk Analysis using MonteCarlo simulation), Autocad.

Equipment: Spad chlorophyll meter, portable soil pH meter, fruit and soil penetrometer, refractometer, portable photosynthesis system, spectrophotometer, thermocycler, RT-PCR equipment, centrifuge.

Languages: Spanish- Native, English- Professional Proficiency (TOEFL -100/120).