

DR. GOKHAN HACISALIHOGU

Title: PROFESSOR OF BIOLOGY & PLANT BIOLOGY

Department of Biological Sciences, Florida A&M University, Tallahassee, FLORIDA 32307
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EDUCATION:

Ph.D.- Cornell University, New York

Postdoctoral Research: Cornell & USDA-ARS

TEACHING:

BOT2313 Plant Ana. & Development
BOT3303 Plant Morphology
BSC1010 General Biology I (cellular/molecular)
BSC4931 Bio Professional Seminar
BSC1005 Biological Science nonmajors
BIO308 Plant Physiology

BSC1011 Gen. Biology II (organisms)
BOT2313L Plant Anatomy Lab
PCB2033 Ecology |
BIOPL244 Plant Physiology
BIOPL241 Intro Botany
BSC1010L General Biology I Laboratory

AREAS OF EXPERTISE: Plant Physiology, Seed Phenotyping, Cold tolerance, Seed Enhancements, Plant Molecular Genetics, Seed Composition, Abiotic Stress Tolerance, Signaling & Response, Zn Deficiency, Arabidopsis, Beans, Maize.



RESEARCH FOCUSES: Zinc (Zn) is an essential micronutrient and therefore Zn deficiency is one of the most critical limitations to plant yield & quality. Professor G. Hacisalihoglu (pronounced as hasi-sali-olu) is interested in one of plant sciences fundamental questions: How do some plants tolerate low soil Zn? His research made important contributions to Zn efficiency mechanisms of crop plants such as beans, bread wheat, soybeans, maize, and Arabidopsis at

local, national, and global levels.

Working collaboratively, he is presently engaged in NIRS (near-infrared reflectance spectroscopy) to predict seed composition (protein, CH, oil, nutrients, color, & shape). More recently, Dr. Hacisalihoglu's research has been on RNA-directed DNA methylation Gene Silencing as well as Auxin Signaling and Nitrogen response to Arabidopsis lateral root growth.

FEATURED PUBLICATIONS:

→Dr. G. Hacisalihoglu's Google Scholar page, **click**→ www.goo.gl/mCHkmQ

- **Hacisalihoglu G**, Stephens D, Johnson L, Edington M (2018) The use of an active learning approach in a SCALE-UP learning space improves academic performance in UG General Biology. **PLOS ONE** 13(5): e0197916. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0197916>

- **Hacisalihoglu G**, Burton, et al. (2018) Quantitative trait loci associated with soybean seed weight and composition under different phosphorus levels. **Journal of Integrative Plant Biology** 60(3): 232-241. <https://www.ncbi.nlm.nih.gov/pubmed/29131514>
- **Hacisalihoglu G**, et al. (2016) Enhanced Single Seed Trait Predictions in Soybean and Robust Calibration Model Transfer w NIR Spectroscopy. **J Agric Food Chem** 64: 1079-86. <https://www.ncbi.nlm.nih.gov/pubmed/26771201>
- **Hacisalihoglu G** & Settles AM (2013) Natural Variation of Seed Composition of 91 Bean Genotypes & Possible Association w Seed Coat Color. **Journal of Plant Nutrition** 36: 772-780.
- **Hacisalihoglu G**, Larbi B, Settles AM (2010) Near infrared reflectance spectroscopy predicts protein, starch, & seed weight in intact seeds of c. bean. **J. Agr. & Food Chemistry** 58:702-706. <https://www.ncbi.nlm.nih.gov/pubmed/20025213>
- **Hacisalihoglu G** & Ross Z (2010) Influence of Priming Treatment on Germ. & Soil Emergence of Nonaged and Aged A. Ryegrass Seeds. **Seed Science and Technology** 38:214-217.
- **Hacisalihoglu G**, et al. (2008) An Innovative Plant Genomics & Gene Annotation Program for HS, CC & University Faculty. **Cell Biology Education-LSE** 7: 310-316. <https://www.ncbi.nlm.nih.gov/pubmed/18765753>
- **Hacisalihoglu G** (2007) Germination Characteristics of Three Warm-Season Turfgrasses Subjected to Matricconditioning and Aging. **HortTechnology** 17: 480-485.
- **Hacisalihoglu G**, et al. (2007) Bacterial Wilt Ind. Changes in Nutr. Distr. & Biomass and Effect of AcibenzolarSM on BW in Tomato. **Crop Protection** 26: 978-982. <https://www.sciencedirect.com/science/article/pii/S0261219406002821>
- **Hacisalihoglu G**, et al. (2004) The Role of Shoot-Localized Processes in the Mechanism of Zn Efficiency in Common Bean. **Planta** 218:704-711 <https://www.ncbi.nlm.nih.gov/pubmed/14648115>
- **Hacisalihoglu G**, et al.(2004) Genotypic Variation in C. Bean in Response to Zn Deficiency in Calcareous Soil. **Plant and Soil** 259:71-83. <https://link.springer.com/article/10.1023/B:PLSO.0000020941.90028.2c>
- **Hacisalihoglu G** & Kochian LV (2003) How Do Some Plants Tolerate Low Levels of Soil Zinc? Mechanisms of Zinc Efficiency in Crop Plants. **New Phytologist** 159:341-350. <https://nph.onlinelibrary.wiley.com/doi/full/10.1046/j.1469-8137.2003.00826.x>
- **Hacisalihoglu G**, et al. (2003) Zinc Efficiency is Correlated with Enhanced Expression & Act. of Cu/Zn-SOD & Carb. Anhydrase in Wheat. **Plant Physiology** 131: 595-602. <https://www.ncbi.nlm.nih.gov/pubmed/12586883>

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