

Robert Neil Vaughn

2361 W. Briargate Dr., Bryan, TX 77802 | (979) 450-2765 | vaughn31712@gmail.com

Education

PH.D. | MAY 2013 | TEXAS A&M UNIVERSITY

- Genetics

B.S. | MAY 2006 | TEXAS A&M UNIVERSITY

- Biomedical Sciences

Work Experience

POSTDOCTORAL RESEARCH ASSOCIATE

TEXAS A&M AGRILIFE RESEARCH | SOIL & CROP SCIENCES | JULY 2014 – CURRENT

- Oversight of a long-term introgression project breeding wild/non-commercial cotton germplasm into a commercial background. This is part of a large-scale collaborative effort to facilitate crop improvement involving numerous research institutions.
- Coordinate research collaborations with researchers and students within Texas A&M AgriLife, outside public research institutions, and private entities such as Cotton Incorporated.
- Present research to TAMU student groups and industry/scientific conferences.
- Training graduate students and student workers on field and greenhouse maintenance, lab equipment, and protocols.
- Supervising student workers.
- Lab, greenhouse and field manager.
- Oversight of a shared core facility within the department of Soil and Crop Sciences that provides services for plant molecular biology to the department as well as outside commercial breeders.
- Administer annual pesticide and lab safety training for all members of the lab, maintain records of training and pesticide applications.
- Ensure compliance with USDA, TDA, TAMU biosafety, and EPA.

RESEARCH ASSOCIATE

TEXAS A&M AGRILIFE RESEARCH | SOIL & CROP SCIENCES | FEB. 2014 – JULY 2014

- Lab and greenhouse manager.
- Responsible for field maintenance including irrigation (manual and drip), tractor bed prep, machine planting and cultivation, weed control (manual and chemical), and ensured compliance with USDA and TDA regulations.
- Maintained cotton germplasm materials in the field and greenhouse for wide-cross introgression and mapping studies.
- Trained graduate students on lab equipment and protocols.
- Supervised student workers to assist with day to day lab functions.

LAB TECHNICIAN

TEXAS A&M UNIVERSITY | SOIL & CROP SCIENCES | MAY 2005 – AUG. 2007

- Assisted in the day to day operations of a cotton cytogenetics lab.
- Maintained plants in the greenhouse and field, including watering, fertilizing, pruning, staking, and potting.
- Supervised student workers.

LAB TECHNICIAN

TEXAS A&M UNIVERSITY | ENTOMOLOGY | AUG. 2003– MAY 2005

- Collected phenotypic data on honey bees as part of a study investigating behavioral responses to pheromones.
- Collaborated with local commercial apiaries.
- Maintained lab and apiary.

Patents

- Vaughn RN, Stelly DM. **Comparative Locus Amplification (CLA) for Determining Copy Number Variation.** Patent Application PCT/US2017/012298. January, 2017
- Vaughn RN, Riggs PK. **DNA markers for feed efficiency in cattle.** Patent Application 14/724696. May 2015
- Vaughn RN, Riggs PK. **DNA markers for beef tenderness in cattle.** Patent Application 14/724690. May 2015

Presentations

- Vaughn RN, Stelly DM, et al. **Agriplex PlexSeq™ as a Platform for High-Throughput SNP Screening of Cotton Germplasm.** Selected Presenter Plant Animal Genome Conference XXVI, January 2018, San Diego CA (Agriplex Awarded Travel Grant)
- Vaughn RN, Stelly DM. **A Simple and High-Throughput Assay for Detecting CNV in Gossypium Germplasm.** Beltwide Cotton Conferences, January 2017, Dallas TX
- Vaughn RN, Stelly DM. **A Simple Low-Cost method for Detecting and/or Tracking Specific Copy number variants (CNV) in Gossypium.** Beltwide Cotton Conferences, January 2016, New Orleans LA
- Vaughn RN, Riggs PK, et al. **Genetic mechanisms that contribute to differences in beef tenderness following electrical stimulation.** ADSA-ASAS Joint Annual Meeting 2013. Indianapolis IN. (Late Break Abstract; selected presenter)

Licenses

- TDA Pesticide Applicator License (#0692020)
- Bio-Safety Lab training Level 1