NutraMaize NSF REU Internship

Project Description:

NutraMaize is seeking three Research Experience for Undergraduates (REU) interns to participate in an educational research opportunity funded through a National Science Foundation (NSF) Small Business Technology Transfer Research (STTR) Grant. The aim of this project is to develop more nutritious Orange Corn hybrids suitable for large scale commercial applications in the U.S. Most of the work will be performed at Purdue University facilities including Lilly Hall, the attached greenhouses, Nelson Hall (food science pilot plant), the Agronomy Center for Research and Education (ACRE) farm.

Company Description:

NutraMaize is on a mission to transform the United States’ largest staple crop – corn – into a platform for delivering better nutrition on a population-wide scale. NutraMaize’s innovation is a set of unique varieties of non-GMO Orange Corn. The vibrant orange color comes from significantly higher levels of carotenoids (2-4x more than yellow corn), the same natural antioxidant pigments that give carrots their color and health-benefiting reputation. NutraMaize’s Co-Founder Dr. Torbert Rocheford of Purdue University originally participated in the development of Orange Corn as part of an international humanitarian effort called HarvestPlus to help address malnutrition in Sub-Saharan Africa, where it is currently grown in more than 10 countries. Now, NutraMaize is bringing the nutritional benefits of Orange Corn to Americans whose eye health stands to benefit from increased carotenoid intake. To date, NutraMaize has made Orange Corn available in the U.S. through a line of premium milled products marketed under the brand “Professor Torbert’s Orange Corn” which pays homage to the company’s cofounder and his lifelong dedication to improving the world through science and agriculture. For more information on the story behind Orange Corn visit professortorberts.com.

Core Responsibilities:

Assist NutraMaize employees and Purdue collaborators in the performance of various plant breeding related activities.

- Help quantify targeted phenotypic traits including carotenoid levels using High Performance Liquid Chromatography and protein levels using Near Infrared Reflectance Spectroscopy (NIR).
- Help prepare seed for planting in the field and greenhouse.
- Help manage research fields, pollinations, harvest, and the evaluation of harvested ears of seed.
- Collect various types of data and enter collected data into excel spread sheets, organize and summarize.
- Engage in a variety of experiments, including interdisciplinary poultry science studies.
- Perform other miscellaneous teamwork tasks to help promote an efficient and productive research operation.
- Summarize and present research efforts and results at College of Agriculture scientific poster networking event once per semester.

Qualifications:

- Current undergraduate college student.
- Comfortable working in an outdoor, agricultural setting.
• Experience with or desire to learn scientific lab work.
• Familiarity with Microsoft Excel.
• Detail-oriented and strong organizational skills.
• Excellent, team-oriented communication skills.

Work Hours and Payment:

The internship will begin in January 2023 and end in December 2023. During the summer of 2023 the internship will be full-time (40 hours/week), during the school year the internship is part time (8-12 hours/week). Each selected candidates will receive a stipend of $8,000 disbursed throughout the project period at a rate of $12 an hour.

Application:

Please submit a C.V. and a brief cover letter explaining your interest in and qualifications for the REU position to NutraMaize CEO, Evan Rocheford (evan@nutramaize.com). Applications will be considered on a rolling basis until three suitable candidates are identified.