Requisition # 11526BR
Title Research Scientist
Functional Unit Research - NA Maize Product Development
City Johnston
U.S. State/ Canada Province IOWA
Country United States (USA)
Position Type Full-Time Regular
Hiring Manager Title Research Scientist

Job Description
The Breeding Technologies group at Pioneer develops and integrates cutting-edge science and technology in order to improve active plant breeding programs. The scientist in this position will spearhead the development of molecular breeding techniques for soybean product development and work with a global team of researchers at putting these techniques to practice. We seek unique leaders who are strongly motivated by the desire to solve scientific questions; who are highly skilled quantitative scientists that excel at deeply investigating phenotypic and genetic information; and who can deliver results in a fast-paced, team-oriented environment.

Duties/Responsibilities
Develop improved statistical methodology for the detection of genetic signal in soybean experiments. Evaluate methods using theory, simulation, and data collected from active breeding programs. Test ideas thoroughly and aggressively using well developed benchmarks.

Lead targeted phenotypic and genetic analyses of key breeding experiments. Provide solid interpretation and analysis of experimental results. Investigate sources of error and curate field and/or marker data as necessary in order to achieve improved analyses.

Assist with the analysis of pedigree and marker information for the construction of identity-by-descent relationships in elite breeding germplasm.

Work closely with other researchers to build optimized molecular breeding strategies throughout the product pipeline. Develop robust protocols and guidelines that improve and streamline the use of experimental resources.

Develop strong partnerships with soybean breeders and assist them in adopting new molecular breeding approaches. Structure research plans to answer key questions faced by breeders.

Outline clear experiments and plans to practically demonstrate the value of new molecular breeding methods. Communicate ideas with authority and skill to all levels in the organization. Provide strong oral and written presentations of methods, results, conclusions, and recommendations.

Educational Qualifications Desired
PhD in quantitative genetics, plant breeding, animal breeding, statistics, or a related field, plus 2 to 4 years of post-doctoral and/or industry experience or equivalent amount of relevant education and experience.
Competencies and Experience Desired

An independent, highly motivated, and self-directed scientist is required.

Excellent and comprehensive understanding of quantitative genetics and experimental design in a plant breeding context.

Deep and thorough knowledge of statistical methods and software as used in plant breeding, particularly for genomic selection and molecular breeding, is essential.

Demonstrated experience with mixed linear modeling methodology is required and practical experience with ASReml is desired.

A strong track record of written publications and oral presentations is needed and an excellent ability at clearly communicating complex research is required, particularly in a cross-functional setting.

Experience with the analysis of field trial data and the interpretation of results is desirable.

Familiarity with the interpretation and curation of SNP marker data is desirable and previous experience with genetic or genomic analysis of agricultural crops would be beneficial.