

Support of Peanut Foundation Research

The Peanut Foundation is appreciative of the Georgia Peanut Commission's and the National Peanut Board's support of past Foundation supported research. The Peanut Foundation is the only funder of peanut production and processing research that represents the entire peanut industry. Our board of directors is representative of growers, shellers, manufacturers and allied industries. The Foundation recently completed the Peanut Genome Initiative (PGI). That successful research initiative sequenced the genomes of two wild type progenitors to cultivated peanut and the genome of cultivated peanut. The PGI also developed high-quality genomic tools to support marker assisted selection (MAS) and techniques to utilize the rich genetic diversity available in wild peanut species. The industry is avoiding controversial GMO and gene editing technology for now. The PGI was accomplished in five years with a \$6M budget, much quicker and less expensive than for other crops. Markers have been developed for the high oleic trait, nematode resistance, TSWV resistance, early and late leafspot resistance. MAS has contributed to the release of several new cultivars (Georgia 14N, Ole', TifNV-HiOL and others).

What are the next logical steps following these accomplishments? The Foundation is working on a proposal to focus our new genomic tools on four research target areas vitally important to the industry: Leafspot resistance, aflatoxin resistance, drought tolerance, and flavor conservation. While some of these goals will take some time to achieve, we feel that the PGI will lead to high levels of leafspot resistance which will be available to growers in the next few years. Leafspot costs U.S. peanut farmers \$53M per year in lost yield and production costs. Several over-arching issues are critical to success in these four research target areas: PeanutBase; germplasm conservation, curation and genotyping; phenotyping to support marker discovery; breeder support tools and workshops to communicate new techniques; and scientific meeting support. We plan to support these over-arching issues as well.

Our draft plan has been vetted through industry leaders and key scientists, but we are still seeking comments and suggestions. We believe the plan is logical and doable. We also believe the financial investment is minimal compared to the research investment seen in other crops and that the potential return-on-investment (ROI) is enormous. Our mission is to support the industry with high ROI research. The Peanut Foundation exists to promote, and support research that is vital to the continued profitability and resilience of the U.S. peanut industry. We will soon be communicating our final research plan and asking for your continued support.