



Phenotype Screening

C O R P O R A T I O N

enabling discovery

Service Description

2017 Discovery Laboratory Calendar

Phenotype Screening Corporation offers a detailed plant development characterization service for the evaluation of the effects of chemical and biological seed treatments, foliar sprays, fertigation agents, and other plant treatments on whole plant (roots and shoots) growth and development.

We conduct seven (7) treatment comparative evaluation trials in our Discovery Laboratory throughout the year. Each trial lasts for six (6) weeks. Clients reserve plant slots in our trials. We can accommodate one hundred and sixty-eight (168) plants in each trial.

2017 Discovery Lab Experiment Calendar

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Field Trial Candidates Trial (Foliar Spray Formulations) 1/16 – 3/3											
		Cold Germination and Emergence Trial 3/13 – 4/28									
				Standard Conditions Trial 5/8 – 6/23							
						Standard Conditions Trial 7/3 – 8/18					
							Cold Germination and Emergence Trial 8/28 – 10/13				
									Field Trial Candidates Trial (Seed Treatment Formulations) 10/23 – 12/8		
											Field Trial Candidates Trial (Foliar Spray Formulations) 12/18 – 2/2

During the late fall and winter months we reserve two trials to assist our customers with the selection of product combinations, formulations, dose rates, application timing, etc. for the following season's field trial candidates.

Twice a year we conduct special cold temperature trials to better evaluate products formulated for early planting conditions. These trials are used to evaluate cold germination and emergence performance. Initial temperature for maize is typically set at 52°F (11°C) and at 56°F (13°C) for soybean. These initial temperatures are 6°F (3°C) above reported

Service Description

2017 Discovery Laboratory Calendar

(continued)

minimum germination temperatures for each species. The temperature is then slowly raise per client specifications until the seedlings are ready for transplanting into the Discovery Laboratory. The Discovery Laboratory has the capability to maintain root zone temperatures separate from air temperature. This capability is exploited for the duration of the cold trial.

During the summer months we reserve two trials for custom experiments. Germination and growth conditions are typically optimal and these experiments are used to ferret out specific effects of test formulations.

Our trials are not used to validate efficacy or compare yields. Our trials are used to investigate plant health and vegetative development, the so-called "boost" and "drag" effects. We measure maturity rate, greening effects, plant height, stalk diameter, leaf area, dry biomass, root branching and root depth. Each root trait is provided for several select root diameter ranges. We provide the power of the whole picture. The insight we provide clarifies your product's total value proposition in the marketplace.

We provide comprehensive results of your products' performance in clear to understand charts. Our charts typically provide treatment means and standard error of the means. Additionally we can provide data validation charts with testing for data normality and residuals analysis.

Custom Chart Comparing Two Treatments

