Meeting Production Requirements
A Third-Party Lab Perspective

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Overview

I. Purpose & Scope
II. Testing Platforms/Technologies
III. Trait Provider Requirements
IV. Customer Requirements
V. Recommendations
VI. Questions
Purpose & Scope

**Purpose:** Identify and communicate challenges of third-party testing laboratories offering quality assurance testing for seed producers

**Scope:** Genetic and Trait Quality Assurance testing for seed producers

**Out of Scope:**
- Genetic selection
- Trait introgression
- Inbred production
- Germ testing required for labeling
- Breeding increases
- Feed and grain production
Challenge: There are a lot of technologies (with varying chemistries) for determining genetic and trait purity, with more in the works.

**Genetic Purity**
- IEF
- Isozyme Electrophoresis

**Trait Purity**
- ELISA
- Herbicide Bioassay
- PCR/SNPs
Challenge: There are a lot of platforms to select from for determining genetic and trait purity, with more in the works.
Trait Provider Requirements

Challenges:

• Trait requirements vary from provider to provider.
• Access to the requirements are typically provided to licensees only, often to legal and not person responsible for Quality.
• Proficiency testing plans vary from provider to provider.
Customer Requirements

Challenge: Not all customers have the same testing needs.

• Seed producers, contract growers, brokers, retail sellers have varying requests and demand for quality.

Bare minimum Gold Standard

• All customers want testing to be accurate, rapid, and inexpensive.
Recommendations

Trait Providers

• Proactively communicate expectations to labs
• Ensure individuals reviewing data at licensees have access to licensing agreements and understand them
• Allow for range of technologies and platforms and enable understanding of cost/benefit of each
• Build consistent requirements and PT programs

Labs

• Develop relationships with trait providers, chemistry, technology, and platform vendors
• Be persistent in continual improvement of processes
Questions