

Safety testing is a priority throughout product development

### Concept/Discovery

- Timing and selection of products dependent on customer need and technology development
- Gene discovery
- Transformation
- Elite germplasm

### Development

- Integration with elite germplasm
- Molecular analysis
- Compositional analysis
- Laboratory – product concept to proof of concept and integration
- Field – performance testing

### Regulatory

- Safety testing
- Government agency approval
  - USDA
  - EPA
  - FDA
- Industry standards

### Market

- Product introduction
- Customer acceptance
- Generates revenue

### Post Market

- Continued monitoring
- Customer feedback

#### Gene(s)

- Source(s)
- Molecular characterization
- Insert / copy number / gene integrity

#### Protein(s)

- History of safe use
- Function/specificity/ mode of action
- Toxicology
- Allergenicity testing

#### Crop Characteristics

- Morphology
- Yield
- Agronomics

#### Food/Feed Composition

- Proximate analysis
- Key nutrients
- Test for possible decrease in nutrients

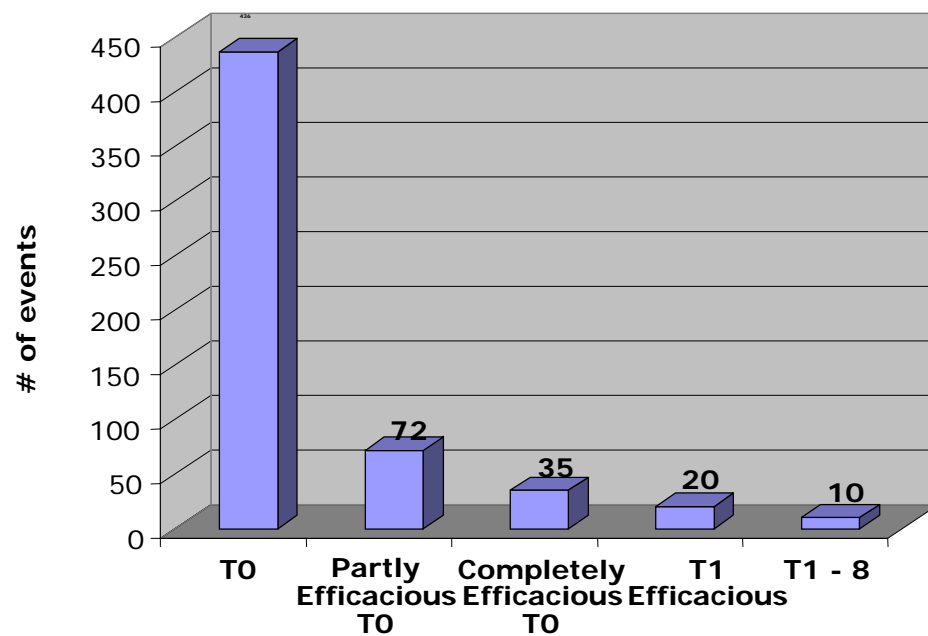
#### Environmental Safety

- Soil
- Aquatic
- Non target insects and other animals
- Gene flow



The trait will initially be offered in select elite hybrids of Pioneer Hi-Bred, Mycogen Seeds, and another seed company.

**Graph Shows How Events Were Selected For Herculex™ I**



EPA re-registered insect resistant trait for 8 years in October, 2001.