



EXPERTISE

**SEED TESTING**

# **MAKING THE DIFFERENCE**

**ASSURE QUALITY AND SAFETY**



TRUST



QUALITY



Quality in production agriculture is at the root of your success. In a competitive market, seed product knowledge will help not only to maximize yields, but also improve the management and sustainability of natural resources.

Knowledge can help you to optimize and improve the quality of seed products when they are used under a range of environmental conditions. SGS's global network of seed laboratories and experts makes this knowledge accessible, wherever you are based.

SGS provides a wide range of seed services including sampling, laboratory testing and research.

#### SEED SAMPLING

- Authorized sampler program such as ISTA
- Seed sampler workshops

#### SEED GERMINATION, VIGOR AND VIABILITY TESTING

- Cold germination
- Standard warm germination
- Saturated cold
- Accelerated aging
- Tetrazolium testing (TZ)

#### GENETIC PURITY

- Hilum color examinations
- Hypocotyl color examinations
- Phenol testing
- Peroxidase activity testing
- Purity level for single seed analysis

#### PHYSICAL PURITY

- Visual examination for:
  - Pure seed
  - Contamination by other species
  - Inert material
- Bulk exam – customer specified
- Undesirable grass seed exam
- Visual exam – National Seed Health System (NSHS)
- Color sorting of RIB (Refuge in a Bag) corn

#### PCR SERVICE

- Event identification on leaf, seed or processed materials
- Quantification of GMO levels on seed or processed materials

#### TRAIT CONFIRMATION

- Herbicide bioassay and spray-over tests
- Insect resistance trait purity testing, using ELISA analysis

#### SEED CHARACTERISTICS

- Pure live seed
- Moisture
- Seeds per pound
- Test weight

#### SEED HEALTH TESTING

Local, national, regional and international rules regarding seed health testing apply to seed products being shipped around the globe. A variety of diseases can be carried on seeds. Seed health testing confirms presence, or absence of pathogens.

#### LABORATORY RESEARCH SERVICES

- Seed safety and storage trials
- Seed quality method development
- Seed treatment dust off studies and trial study preparation
- Seedling growth rate studies
- Plantability assessments
- Herbicide trait detection method development
- Speed of germination
- Flowability assessments
- Dormancy and treatment evaluations

#### GLP LABORATORY SERVICES :

- Germination, seed treatment application and verification
- DNA and protein expression
- Compositional and residue analysis

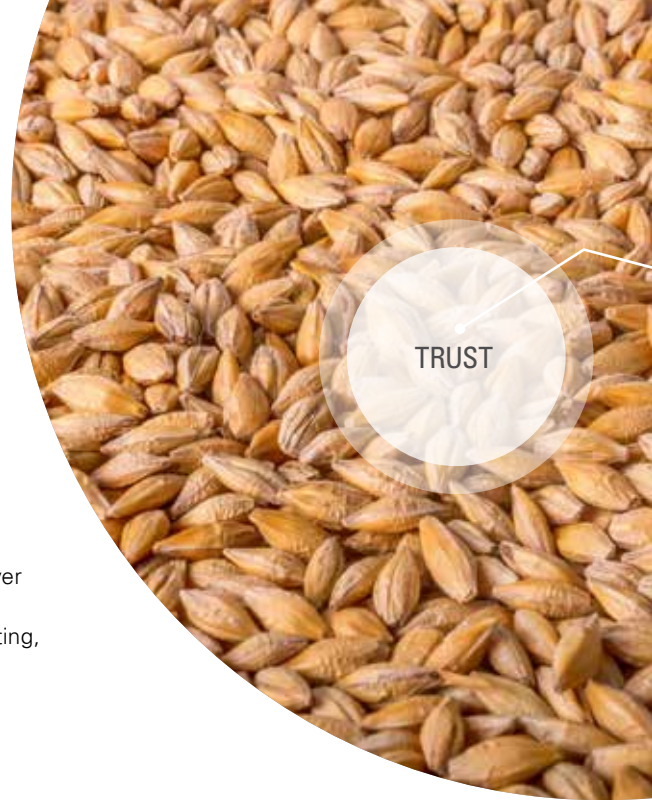
#### SEED EXPORT SERVICES

- ISTA authorized sampler training
- ISTA Orange (OIC) and Blue International certificates (BIC)

#### FIELD TRIALS

With a global network of field stations, we offer GLP and GEP field trials for:

- Treated seed
- New varieties
- GM crops
- Insecticide and fungicide efficacy





### SPECIAL TESTS

- Pericarp testing to identify damage in seed coat
- Visual seed defects
- Mechanical damage test
- Seed Treatment Application Verification (STAV) testing to ensure seed applications are completed properly
- POM testing determines seed quality through protein, oil and moisture testing
- Shake-out services test bulk field harvest samples

### SEED QUARANTINE

In Brazil, to protect against the import of non-native pests and plant diseases, we have established a post-entry quarantine system that can perform quarantine phytosanitary analysis.

### PEDIGREED SEED CROP INSPECTION

Seed grown in Canada must be Canadian Seed Growers' Association (CGSA) certified to guarantee quality, varietal identity and purity, as well as contamination. We offer third party inspections to demonstrate that your seeds meet the requirements of Canada's seed crop framework.

### INDUSTRY STANDARDS

Tests are performed in accordance with local standards such as the Association of Official Seed Analysts (AOSA) and the Canadian Methods of Procedures. In addition, we can employ International Seed Testing association (ISTA) methods.

### ACCREDITATIONS

Laboratories in our network are accredited by the International Seed Testing Association (ISTA) as well as e.g. ISO Standards.

### TECHNOLOGY & INNOVATION

Innovation is at the heart of our business. New technologies deliver knowledge, insight, transparency and efficiency for our customers.

**Laboratory Information Management System (LIMS):** Improves the productivity and efficiency of laboratory operations. SGS LIMS enables automation and instrument integration, reducing turnaround time and human error. Test results can be accessible 24/7 via a web portal.

### SGS BENEFITS

SGS is the world's leading inspection, verification, testing and certification company.

- 📄 State-of-the-art
- 🕒 Rapid Turnaround time
- 🔄 Harmonized procedures
- 📊 Data Management

### CONTACT US

- ✉ [seed.crop@sgs.com](mailto:seed.crop@sgs.com)
- 🌐 [www.sgs.com/seed](http://www.sgs.com/seed)
- 🌐 [SGS Agriculture & Food](#)

[WWW.SGS.COM](http://WWW.SGS.COM)

WHEN YOU NEED TO BE SURE

