

## TECHNICAL SERVICES DIVISION

*The Technical Services Division  
is recognized globally for expertise in grain inspection technologies.*



At our technical center in Kansas City, we provide:

- technical leadership, training and support services
- inspection methods development
- specialized analytical tests
- national quality assurance and standardized processes
- final appeal inspections on GIPSA's field-based testing services



*We are the reference for all methods used for official certification of grain quality.*

## METHODS DEVELOPMENT

### Emerging Technologies

*Rapid Tests*



*Functional Quality Prediction*



*Pesticide Residue Analysis*



*Digital Media*



*Artificial Neural Network*



*Unified Moisture Calibration*



*Biotechnology Analysis*



#### **Rapid Test Performance Evaluation Programs**

We maintain and improve reference methods and evaluate rapid tests for detecting mycotoxins and biotechnology-derived grains.

#### **Functional Quality Assessment**

Reference methods to assess wheat end-use quality are being developed to facilitate U.S. wheat exports.

#### **Pesticide Residue Method Development and Testing**

TSD maintains and improves methods for detecting pesticide residue in grains.

#### **Biotechnology**

We play a critical role in improving the reliability of testing for biotechnology-derived grains and oilseeds on a global basis through the USDA/GIPSA Proficiency Program and related activities.

#### **Moisture Measurement Methods Development**

TSD has developed a Unified Moisture Algorithm, a single calibration that may be used for all grain types.

#### **Artificial Neural Network Calibration**

GIPSA worked cooperatively with groups from Canada, Australia, and several European countries in the development and evaluation of a global artificial neural network (ANN) near-infrared transmittance (NIRT) calibration.

#### **Educational Services**

The grain industry relies on TSD to provide specialized instruction for their customers and employees. The Digital Media Group creates and disseminates visual reference materials, and interactive training modules in several languages on a variety of inspection topics.