



Canadian Grain
Commission

Commission canadienne
des grains

Standard for Moisture Testing

Version 2.0

April 1, 2026

Table of Contents

1.0	Purpose	3
2.0	Definitions	3
3.0	General requirements	4
4.0	Internal verification of instruments	4
5.0	External verification of instruments	5
6.0	Calibration.....	5
7.0	Maintenance and repairs	5

1.0 Purpose

- 1.1** The Standard for Moisture Testing provides guidance to licensees on how to develop a quality management system (QMS) for moisture testing. Compliance with the standard will help ensure that results and practices are consistent, comparable and repeatable for applicable licensees.

2.0 Definitions

2.1 Enhanced program

Optional procedures that exceed the minimum requirements of the standard.

2.2 Grain calibration

The process of ensuring that an instrument provides accurate results for a particular type of grain across a range of values.

2.3 Licensee

A company that holds a primary elevator, terminal elevator, process elevator, or grain dealer licence issued by the Canadian Grain Commission.

2.4 Proficiency testing

An external assessment of a laboratory's ability to perform tests to the required level of competence and quality using pre-established tolerances. A sample is received by a laboratory, analyzed and results are reported back to an accredited body. A report is sent to participants and the accredited body gives a pass, warning or fail based on all the laboratories who submitted results.

2.5 Tolerance

The acceptable variation in the results of a particular test.

2.6 Traceable certified weight

Standardized weights that are certified by international laboratories. Each weight has a precise mass that makes it suitable for calibrating scales, ensuring that weight measurements are accurate.

2.7 Verification

The process of confirming that an instrument operates according to its stated specifications and performs without any error.

3.0 General requirements

If the licensee chooses to adopt this standard, the licensee is agreeing to meet all of the following requirements:

- 3.1** The licensee shall develop a quality management system (QMS) based on this standard and provide evidence that its moisture testing procedure and instruments are producing reproducible and accurate results. The licensee may also show that its current QMS meets this standard.
- 3.2** The licensee shall meet the minimum requirements of this standard. Within the standard, there are enhanced procedures that are optional and allow the licensee to have a more robust QMS.
- 3.3** The licensee shall document and maintain records (electronically or in hard copy) and implement the process.
- 3.4** The licensee shall have a procedure that will be implemented when any aspect of its controls, instrumentation, testing activities or results do not fall within defined tolerances. The procedure shall ensure that the following occur and are documented:
 - 1. identification and description of the issue
 - 2. investigation of the cause
 - 3. immediate and corrective actions

4.0 Internal verification of instruments

- 4.1** The licensee must define suitable tolerances and demonstrate that its instruments provide repeatable results for identical samples.
- 4.2** The licensee must verify its instruments by running, at minimum, one sample in duplicate on each day an instrument is in use and must meet its defined tolerance.
- 4.3** The licensee must verify its scales (moisture meter scales and bench top scales) monthly using a commodity with known weight, traceable certified weight or by comparing the weight recorded against the weight provided by a verified external scale.
- 4.4** The licensee must calibrate its bench top scales on an annual basis using a calibration provider.
- 4.5** Under the enhanced program, moisture meter scales must be verified twice monthly using a commodity with known weight.

- 4.6** Under the enhanced program, bench top scales must be verified before each use with a traceable certified weight.

5.0 External verification of instruments

- 5.0** The licensee must verify its instruments using an external source that provides acceptable tolerances, at a frequency determined to be suitable by the licensee. The licensee must use one of the following methods:
1. proficiency testing
 2. submit analyzed samples with known results to the Canadian Grain Commission's fee for service program to receive a certificate of analysis that can be used for result comparisons
- 5.2** If the licensee uses the Canadian Grain Commission's fee for service program to verify its instruments, the licensee must define suitable tolerances and demonstrate that the instruments have comparable results.

6.0 Calibration

- 6.1** The licensee must use grain calibrations and conversion charts supplied by the Canadian Grain Commission or the manufacturer. These cannot be altered or expanded beyond the limits provided.
- 6.2** For UGMA models, grain calibrations must be updated annually according to the manufacturer's website on July 1.
- 6.3** For 919 models, conversion charts must be updated annually according to the Canadian Grain Commission's website after July 1.
- 6.4** For all other models, the licensee must update applicable grain calibrations or verify instruments using alternative instrumentation that has updated grain calibration so that results are traceable.

7.0 Maintenance and repairs

- 7.1** The licensee must maintain and repair its instruments according to the manufacturer's instructions. In addition:
1. instruments must be cleaned each month at a minimum
 2. instruments must be cleaned after infested samples have been tested

3. instruments must be cleaned after receiving errors messages or if samples exceed suitable tolerances
4. under the enhanced program, instruments must be cleaned at least once a week during high volume testing

Following a repair, the licensee must verify an instrument using a reference instrument or an external service provider prior to analyzing more samples.