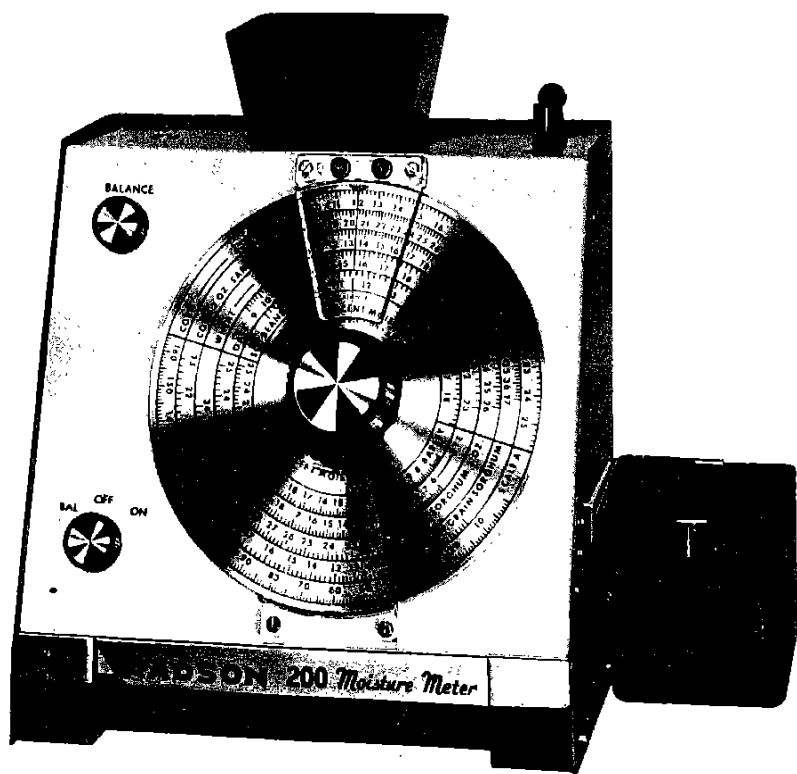


INSTRUCTIONS
FOR OPERATING THE
RADSON®
MODEL 200 MOISTURE METER



INTRODUCTION

The RADSON 200 Moisture Meter is a precision-built electronic instrument employing advanced principles of design based upon RADSON's years of experience as the largest manufacturer of grain moisture testers in the world.

The RADSON 200 Moisture Meter is designed primarily for measuring the moisture content of field grains, and the percent moisture of most grains can be read directly from the dial without the use of charts. Operation is simple and rapid, providing the utmost in accuracy.

The RADSON Model 200 Moisture Meter is supplied for either 115 volt AC operation or 12 volt battery operation, the latter being normally provided with internal batteries. The use of completely transistorized circuitry eliminates any need for warm up and assures lasting stability and accuracy.

To add to the speed and convenience of weighing a sample of grain to be tested, a built-in scale of advance design is provided and is pre-calibrated to the standard sample weight. The scale cup is designed for maximum accessibility and ease of pouring.

All moisture percentage calibrations are based on thousands of grain tests compared directly to official method air-oven tests. Our Calibration Laboratory continually monitors grain moisture tests and is available to evaluate specific calibration requirements that might arise.

You can help maintain the accuracy of your RADSON Moisture Meter by handling it carefully and avoiding exposure to rain and excessive dampness. The instrument is ruggedly constructed and may be used in shop, office or field. For maximum portability a carrying case is available from your dealer.

SPECIFICATIONS

Electrical Power Requirements: Cat. No. PB-37-1, 12 volt battery — 2 Eveready No. 2713 or equivalent.

Cat. No. PB-37-2, 105-125 volt 60 cycle, 10 watts.

Weight: 9 pounds

Dimensions: Height 11½ inches Depth 6¼ inches Width 9⅝ inches

Dial Calibration: Reads directly in percent moisture as tabulated below. An additional scale "A" is provided for use with charts for other grains and special commodities.

Grain	Range
Corn	6 to 26%
Corn (high moisture)	17 to 37%
Sorghum	6 to 23%
Sorghum (high moisture)	20 to 34%
Soybeans	8 to 19%
Barley	6 to 25%
Rye	6 to 25%
Wheat	6 to 26%
Oats	8 to 23%

All grains shown on the dial are calibrated for a five ounce sample except high moisture corn and high moisture sorghum which require the use of a three ounce sample.

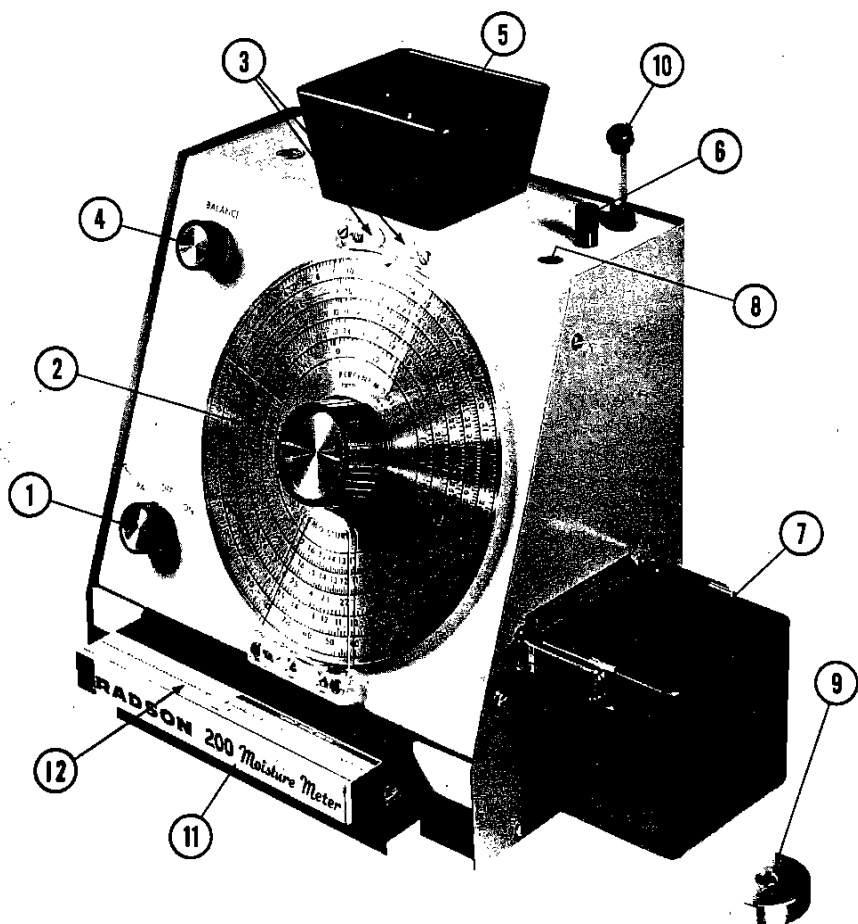
Scale: Factory-adjusted with matching grain cup to weigh exactly five ounces. Auxiliary weight supplied for weighing three ounce samples.

GUARANTEE

The Dole Valve Company agrees to repair at its factory or an authorized service station, or duplicate, f.o.b., the factory, any Radson product of its own manufacture proving defective from faulty workmanship or material, within one year of date of first use, provided written notice of such defect and the defective product is promptly returned to the factory or one of its authorized service stations, all transportation charges prepaid. Warranty will be allowed only if the Radson Guaranty Registration Card has been completed and returned to the factory. Outside purchased equipment and accessories are guaranteed only to the extent that The Dole Valve Co. recovers under the original manufacturer's guaranty. The Dole Valve Co. shall not be held liable for any contingent damages or delays caused by defective workmanship or material and will make no allowance for repairs or alterations made without its written consent.

DESCRIPTION

The RADSON Model 200 Moisture Meter is a completely self-contained instrument as illustrated below. The built-in scale enables convenient weighing of the grain sample, which is then introduced into the hopper, tested, and released into the drawer for removal. A special grain thermometer is stored in a receptacle at the top of the Moisture Meter for convenient use in determining the temperature of the grain sample.



THE CONTROLS AND IMPORTANT PARTS OF YOUR MOISTURE METER ARE IDENTIFIED BELOW

1. **POWER SWITCH.** Turning to the left turns on the instrument in the balance position for standardizing the initial balance. Turning to the right turns on the power for grain moisture testing.
2. **DIAL.** Provides direct reading of all test results.
3. **BALANCE LIGHTS.** Indicate when testing circuit is balanced. Brighter right light indicates clockwise dial rotation. Brighter left light indicates counterclockwise dial rotation.
4. **BALANCE KNOB.** Provides adjustment to balance circuit before introducing grain sample.
5. **HOPPER.** Funnels the grain into the test chamber.
6. **DUMP BUTTON.** When pressed, dumps grain from test chamber into drawer.
7. **GRAIN CUP.** Shown in position on scale for sample weighing.
8. **SCALE INDICATOR.** Shows balance of grain sample being weighed in cup.
9. **AUXILIARY WEIGHT.** Attaches to bottom of cup for high moisture sample weighing.
10. **THERMOMETER.** For determining grain temperature. Shown in storage receptacle.
11. **DRAWER.** Used to remove grain after completing test.
12. **TEMPERATURE CORRECTION CHART.** Shows moisture to be added or subtracted for cold or hot grain samples.

HOW TO MAKE A MOISTURE TEST

1. If AC model plug into 115 volt outlet. If battery model make sure that batteries are in place.
2. Balance circuit as follows:
 - A. Turn main dial until balance mark is directly under the upper hairline.
 - B. Rotate the power switch to the BALANCE position and adjust balance knob until the balance lights are of equal brightness.Step No. 2 is not necessary before every test. Periodic checks of balance will make sure that balance is maintained.

3. Weigh sample of grain in scale cup with cup and bail assembled to tester as illustrated. Pour grain into cup until beam swings free, as shown by scale indicator.
4. Remove scale cup and bail from scale hanger and pour grain in the hopper on top of moisture meter.
IMPORTANT: For CONSISTENTLY ACCURATE TESTS, POUR AS QUICKLY AS POSSIBLE, WITHOUT SPILLING GRAIN.
5. Rotate the power switch to the ON position and turn the dial to bring the balance lights to equal brightness.
6. Locate the scale on the dial for the grain being tested and read percent moisture under indicator hairline. If there is no scale for the grain being tested, read "Scale A" and refer to chart for moisture reading.
7. Press dump button and remove grain sample and drawer.

TESTING GRAIN WITH HIGH MOISTURE

If you cannot bring the balance lights to equal brightness when testing a sample, the grain has a higher moisture content than can be read on dial. Dump grain from testing chamber, remove, and weigh a new smaller sample by installing the auxiliary weight on the bottom of the grain cup. Test as before, reading corn or sorghum on the "high moisture" scale and other grains on "Scale A," and referring to the "high moisture" chart for the grain being tested.

WHEN TO MAKE A TEMPERATURE CORRECTION

The RADSON Moisture Meter is designed to make accurate moisture tests when the sample temperature is 80° F. The error caused by a few degrees deviation from this temperature is small, but when the grain is brought in from a field where the temperature is cool or very warm, or taken from a heated air dryer, a correction should be applied to the moisture reading. A simple chart for temperature corrections which specifies an amount to add or subtract from the moisture reading is provided just inside the grain drawer.

If the grain is brought in from a field and tested immediately, it may be assumed that the grain temperature is the same as the outdoor air temperature. If the temperature is unknown, place the thermometer in the grain sample for a few minutes before making the moisture test.

Never attempt to seal hot grain in an air-tight container for testing at a later time because a chemical change may occur which will cause an actual increase in moisture content. Cold grain, however, should be sealed air-tight if it is to be tested at a later time.

SAMPLE YOUR GRAIN WISELY

Be sure that your grain sample is representative of the field or part of the field which you want to test. Because moisture content of grain varies widely in the field, it is best to take a large sample, mix it, and weigh out the test sample from the mixed grain. Test the sample as soon as possible after it has been taken, to prevent possible gain or loss of moisture in handling.

MAINTENANCE

Your RADSON Moisture Meter is designed to give years of trouble free operation without special service or internal adjustments. The battery life in battery models is normally limited by the shelf life of the batteries. Normally batteries should be replaced once a year. Batteries are accessible by removing the three screws in the lower left hand side of the housing. Care should be taken to use only type 2713 batteries or equivalent, and to replace them with the proper polarity and connections.

If internal maintenance is required never attempt to have it done by a radio or television repair man. The electronic circuitry used in your moisture meter is very specialized and the factory calibration can be destroyed if proper maintenance procedure is not followed. The Dole Valve Company maintains a Factory Service Department for efficient repair of all RADSON products and it is recommended that your instrument be returned to the factory as described under "Guarantee," if repair is required.