

Directive

9180.61

09-10-12

OFFICIAL MOISTURE METER CALIBRATIONS

1. PURPOSE

This directive transmits the official calibrations for use with the moisture meters used by the Grain Inspection, Packers and Stockyards Administration (GIPSA) and its system of Official Inspection providers for official grain moisture measurement.

2. BACKGROUND

The directive transmits new official moisture calibrations for corn, soybeans, sorghum, and sunflowers (oil and confectionary) for Dickey-john GAC2500-UGMA and Perten AM5200-A moisture meters. The Dickey-john GAC2100 moisture meter can no longer be used to determine official moisture contents for these grains, and the corresponding calibration coefficients have been deleted from the directive. The directive does restate all other Dickey-john GAC 2100 official calibrations transmitted in the previous directive dated August 1, 2012.

Attachment 1 lists the Dickey-john GAC 2100 calibrations for the major grains (those grains for which moisture meters are also standardized under the National Type Evaluation Program (NTEP)). Attachment 2 lists Dickey-john GAC 2100 calibrations for other grains and commodities that are within the scope of GIPSA's inspection responsibilities. Calibration implementation dates for the GAC 2100 are listed in Attachment 3.

Official calibrations for the Dickey-john GAC2500-UGMA and Perten AM5200-A are listed in Attachment 4. Maximum sample temperature limits are also shown in Attachment 4.

3. REPLACEMENT HIGHLIGHTS

This directive replaces Directive 9180.61, Official Calibrations for the Dickey-john GAC 2100 Moisture Meter, dated August 1, 2012.

4. PROCEDURES

All official inspection laboratories shall use the new Dickey-john GAC2500-UGMA and Perten AM5200-A calibrations for **Corn, Soybeans, Sorghum, and Sunflower Seeds (oil and confectionary)** official inspections performed on and after September 10, 2012.

5. QUESTIONS

Questions concerning these instructions should be directed to Patricia Jackson (816) 891-0450.

/s/Robert Lijewski

Robert Lijewski, Director
Field Management Division
Attachments

OFFICIAL GAC 2100 CALIBRATION CONSTANTS
 for Grains in the NTEP Testing Program

<p>Six-rowed Barley (6 - 22%) BARLEY SIX ROWED 120320N</p>	<p>Two-rowed Barley (6 - 20%) BARLEY TWO ROWED 120321N</p>	<p>Corn N/A</p>	<p>Corn (High-Moisture) N/A</p>	<p>Oats (8 - 18%) OATS 100408N</p>	<p>Long Grain Rough Rice (8 - 26%) RICE LG ROUGH 120320N</p>
K1: 1141	K1: 1378			K1: 5653	K1: 0200
K2: 1617	K2: 5383			K2: 7223	K2: 3129
K3: 1128	K3: 1371			K3: 1264	K3: 1235
K4: 2002	K4: 4998			K4: 8999	K4: 2371
K5: 2105	K5: 2105			K5: 1705	K5: 1900
K6: 1868	K6: 1075			K6: 1652	K6: 2042
K7: 2206	K7: 2006			K7: 1808	K7: 2608
K8: 9904	K8: 9995			K8: 9914	K8: 9971
K9: 1056	K9: 1056			K9: 1048	K9: 1057
<p>Medium Grain Rough Rice (8 - 30%) RICE MG ROUGH 120319N</p>	<p>Sorghum N/A</p>	<p>Soybeans N/A</p>	<p>Sunflower Seed (Oil-Type) N/A</p>	<p>Durum Wheat (6 - 20%) DURUM 110329N</p>	<p>Hard Red Spring Wheat (6 - 22%) WHEAT HRS 080326N</p>
K1: 0091				K1: 0767	K1: 0495
K2: 3143				K2: 1547	K2: 1664
K3: 1228				K3: 1228	K3: 1220
K4: 2448				K4: 0501	K4: 0766
K5: 1900				K5: 2505	K5: 2505
K6: 1849				K6: 1862	K6: 1074
K7: 3008				K7: 2006	K7: 2206
K8: 9988				K8: 9973	K8: 9975
K9: 1057				K9: 1055	K9: 1045
<p>Hard Red Winter Wheat (6 - 22%) WHEAT HRW 060308N</p>	<p>Hard White Wheat (6 - 18%) WHEAT HARD WHITE 080331N</p>	<p>Soft Red Winter Wheat (8 - 22%) WHEAT SRW 070327N</p>	<p>Soft White Wheat (6 - 22%) WHEAT SOFT WHITE 100405N</p>		
K1: 0673	K1: 0778	K1: 0430	K1: 0484		
K2: 1716	K2: 1546	K2: 1936	K2: 1438		
K3: 1247	K3: 1230	K3: 1255	K3: 1175		
K4: 0738	K4: 0499	K4: 2091	K4: 0500		
K5: 2500	K5: 2500	K5: 2505	K5: 2505		
K6: 1074	K6: 0894	K6: 1068	K6: 1074		
K7: 2206	K7: 1806	K7: 2208	K7: 2206		
K8: 9948	K8: 9959	K8: 9996	K8: 9928		
K9: 1045	K9: 1045	K9: 1045	K9: 1045		

OFFICIAL GAC 2100 CALIBRATION CONSTANTS
for Non-NTEP Commodities

<p>Black Beans <u>(8 - 20%)</u> BEANS BLACK 120410</p> <p>K1: 1675 K2: 5429 K3: 1352 K4: 6177 K5: 2605 K6: 1097 K7: 2008 K8: 1015 K9: 1077</p>	<p>Blackeye Beans <u>(8 - 18%)</u> BEANS BLACKEYE 010409</p> <p>K1: 0236 K2: 1323 K3: 1103 K4: 0420 K5: 2395 K6: 2068 K7: 1808 K8: 0310 K9: 1088</p>	<p>Cranberry Beans <u>(8 - 20%)</u> BEANS CRANBERRY 010409</p> <p>K1: 1814 K2: 3995 K3: 1256 K4: 4738 K5: 2385 K6: 1087 K7: 2008 K8: 0370 K9: 1119</p>	<p>Garbanzo Beans <u>(6 - 18%)</u> BEANS GARBANZO 060308</p> <p>K1: 3212 K2: 5646 K3: 1327 K4: 6661 K5: 2565 K6: 2080 K7: 1806 K8: 0305 K9: 1109</p>	<p>Great Northern Beans <u>(8 - 20%)</u> BEANS GR NORTH 120410</p> <p>K1: 1465 K2: 1968 K3: 1128 K4: 2445 K5: 2425 K6: 1875 K7: 2008 K8: 1093 K9: 1098</p>	<p>Kidney Beans <u>(8 - 20%)</u> BEANS KIDNEY 010418</p> <p>K1: 1359 K2: 3101 K3: 1159 K4: 2538 K5: 2335 K6: 1280 K7: 2008 K8: 1802 K9: 1109</p>
<p>Baby Lima Beans <u>(8 - 18%)</u> BEANS BABY LIMA 010409</p> <p>K1: 1393 K2: 3057 K3: 1151 K4: 2506 K5: 2555 K6: 2073 K7: 1808 K8: 0347 K9: 1109</p>	<p>Large Lima Beans <u>(9 - 15%)</u> BEANS LARGE LIMA 010411</p> <p>K1: 1125 K2: 1492 K3: 1081 K4: 0749 K5: 2275 K6: 2085 K7: 1509 K8: 0377 K9: 1149</p>	<p>Pea Beans <u>(8 - 20%)</u> BEANS PEA 120410</p> <p>K1: 1478 K2: 5191 K3: 1336 K4: 4826 K5: 2675 K6: 1090 K7: 2008 K8: 1072 K9: 1077</p>	<p>Pink Beans <u>(8 - 20%)</u> BEANS PINK 120410</p> <p>K1: 1665 K2: 3082 K3: 1121 K4: 2647 K5: 2455 K6: 1871 K7: 2008 K8: 1043 K9: 1098</p>	<p>Pinto Beans <u>(8 - 18%)</u> BEANS PINTO 990326</p> <p>K1: 3390 K2: 5752 K3: 1317 K4: 6836 K5: 2445 K6: 2073 K7: 1808 K8: 2073 K9: 1098</p>	<p>Small Red Beans <u>(8-18%)</u> BEANS SM RED 030320</p> <p>K1: 1854 K2: 5307 K3: 1304 K4: 6101 K5: 2505 K6: 1089 K7: 1808 K8: 1863 K9: 1098</p>
<p>Small White Beans <u>(8 - 20%)</u> BEANS SM WHITE 990406</p> <p>K1: 1139 K2: 3109 K3: 1190 K4: 2457 K5: 2675 K6: 1086 K7: 2008 K8: 2150 K9: 1077</p>	<p>Yelloweye Beans <u>(10 - 18%)</u> BEANS YELLOWEYE 030404</p> <p>K1: 1392 K2: 3024 K3: 1149 K4: 2482 K5: 2455 K6: 1881 K7: 1810 K8: 1095 K9: 1108</p>	<p>Canola <u>(4 - 15%)</u> CANOLA 100408</p> <p>K1: 0012 K2: 1425 K3: 1084 K4: 0582 K5: 2201 K6: 1369 K7: 1504 K8: 2243 K9: 1024</p>	<p>Corn (High-Oil)</p> <p>N/A</p>	<p>Flaxseed <u>(5 - 15%)</u> FLAX 000411</p> <p>K1: 0114 K2: 1394 K3: 1090 K4: 0501 K5: 2255 K6: 1557 K7: 1505 K8: 1202 K9: 1034</p>	<p>Lentils <u>(7 - 15%)</u> LENTILS 110330</p> <p>K1: 3309 K2: 5814 K3: 1348 K4: 6901 K5: 2505 K6: 0798 K7: 1507 K8: 1046 K9: 1087</p>

OFFICIAL GAC 2100 CALIBRATION CONSTANTS
for Non-NTEP Commodities

Brown Mustard Seed <u>(5 - 14%)</u> MUSTARD BROWN 030324	Oriental Mustard Seed <u>(5 - 14%)</u> MUSTARD ORIENT 030324	Yellow Mustard Seed <u>(5 - 14%)</u> MUSTARD YELLOW 030324	Austrian Winter Peas <u>(8 - 14%)</u> PEAS AUST WINTER 030326	Smooth Dry Peas <u>(8 - 19%)</u> PEAS SMOOTH DRY 000425	Split Peas <u>(8 - 14%)</u> PEAS SPLIT 030320
K1: 3216	K1: 3219	K1: 3213	K1: 1507	K1: 1422	K1: 0231
K2: 3749	K2: 3749	K2: 3749	K2: 5589	K2: 5251	K2: 0069
K3: 1171	K3: 1171	K3: 1171	K3: 1407	K3: 1354	K3: 1048
K4: 4629	K4: 4629	K4: 4629	K4: 6316	K4: 4884	K4: 0000
K5: 2355	K5: 2355	K5: 2355	K5: 2635	K5: 2635	K5: 2805
K6: 1573	K6: 1573	K6: 1573	K6: 1884	K6: 0894	K6: 1870
K7: 1405	K7: 1405	K7: 1405	K7: 1408	K7: 1908	K7: 1408
K8: 1035	K8: 1022	K8: 1028	K8: 1097	K8: 1603	K8: 1066
K9: 1024	K9: 1034	K9: 1034	K9: 1087	K9: 1098	K9: 1066
Wrinkled Dry Peas <u>(6 - 12%)</u> PEAS WRINKL DRY 030326	Popcorn <u>(6 - 26%)</u> POPCORN 920104	Rapeseed <u>(4 - 15%)</u> RAPESEED 990426	Brewers Milled Rice <u>(10 - 15%)</u> RICE BM-SCM-SHM 030417	Brewers Milled Rice – Parboiled <u>(10 - 14%)</u> RICE BMP-SHMP 030505	Long Grain Brown Rice <u>(10 - 21%)</u> RICE LG BROWN 100408
K1: 1893	K1: 0657	K1: 0013	K1: 0732	K1: 0429	K1: 0909
K2: 5190	K2: 1270	K2: 1425	K2: 3804	K2: 1926	K2: 3431
K3: 1282	K3: 1180	K3: 1084	K3: 1472	K3: 1244	K3: 1419
K4: 4999	K4: 0260	K4: 0582	K4: 4000	K4: 2029	K4: 2501
K5: 2445	K5: 2650	K5: 2201	K5: 2800	K5: 2800	K5: 2410
K6: 1893	K6: 2060	K6: 1369	K6: 1054	K6: 1038	K6: 1068
K7: 1206	K7: 2606	K7: 1504	K7: 1510	K7: 1410	K7: 2110
K8: 0382	K8: 1669	K8: 1450	K8: 0295	K8: 0236	K8: 0213
K9: 1068	K9: 1074	K9: 1024	K9: 1024	K9: 1024	K9: 1045
L G Brown Rice - Parboiled <u>(10 - 14%)</u> RICE LG BROWNPAR 010521	Long Grain Milled Rice <u>(10 - 20%)</u> RICE LG MILLED 100408	L G Milled Rice - Parboiled <u>(8 - 20%)</u> RICE LGMILL PAR 020326	Medium Grain Brown Rice <u>(10 - 20%)</u> RICE MG BROWN 030325	Medium Grain Milled Rice <u>(10 - 16%)</u> RICE MG MILLED 040331	M G Milled Rice - Parboiled <u>(10 - 14%)</u> RICE MGMILL PAR 030507
K1: 1623	K1: 5278	K1: 1470	K1: 2100	K1: 2387	K1: 1454
K2: 0465	K2: 5070	K2: 0411	K2: 1333	K2: 7751	K2: 0400
K3: 0087	K3: 1123	K3: 0058	K3: 1251	K3: 1919	K3: 0057
K4: 0001	K4: 6499	K4: 0001	K4: 0164	K4: 8002	K4: 0001
K5: 2500	K5: 2630	K5: 2460	K5: 2550	K5: 2770	K5: 2460
K6: 2065	K6: 1052	K6: 1085	K6: 1072	K6: 1061	K6: 1088
K7: 1410	K7: 2010	K7: 2008	K7: 2010	K7: 1610	K7: 1410
K8: 0259	K8: 0302	K8: 0223	K8: 0216	K8: 0345	K8: 1054
K9: 1054	K9: 1045	K9: 1055	K9: 1045	K9: 1045	K9: 1045

OFFICIAL GAC 2100 CALIBRATION CONSTANTS
 for Non-NTEP Commodities

Screenings Milled Rice <u>(10-15%)</u> RICE BM-SCM-SHM 030417	Second Head Milled Rice <u>(10-15%)</u> RICE BM-SCM-SHM 030417	S H Milled Rice - Parboiled <u>(10-14%)</u> RICE BMP-SHMP 030505	Short Grain Brown Rice <u>(10-18%)</u> RICE SG BROWN 030422	Short Grain Milled Rice <u>(10-16%)</u> RICE SG MILLED 030417	Short Grain Rough Rice <u>(10 - 26%)</u> RICE SG ROUGH 120410
K1: 0732	K1: 0732	K1: 0429	K1: 0443	K1: 0115	K1: 0636
K2: 3804	K2: 3804	K2: 1926	K2: 5583	K2: 0157	K2: 1262
K3: 1472	K3: 1472	K3: 1244	K3: 1561	K3: 1047	K3: 1143
K4: 4000	K4: 4000	K4: 2029	K4: 6001	K4: 0001	K4: 0225
K5: 2800	K5: 2800	K5: 2800	K5: 2550	K5: 2850	K5: 1900
K6: 1054	K6: 1054	K6: 1038	K6: 1085	K6: 1056	K6: 2057
K7: 1510	K7: 1510	K7: 1410	K7: 1810	K7: 1610	K7: 2610
K8: 0295	K8: 0295	K8: 0236	K8: 1070	K8: 1088	K8: 1059
K9: 1024	K9: 1024	K9: 1024	K9: 1045	K9: 1045	K9: 1047
Rye <u>(8 - 20%)</u> RYE 060322	Safflower Seed <u>(4 - 14%)</u> SAFFLOWER 000405	Sunflower Seed (Confectionary)	Triticale <u>(8-15%)</u> TRITICALE 040330		
K1: 0402	K1: 1690	N/A	K1: 0500		
K2: 1305	K2: 3005		K2: 1898		
K3: 1138	K3: 1093		K3: 1246		
K4: 0390	K4: 2518		K4: 0998		
K5: 2265	K5: 1605		K5: 2420		
K6: 1074	K6: 1549		K6: 1074		
K7: 2008	K7: 1404		K7: 1508		
K8: 1312	K8: 1880		K8: 1548		
K9: 1055	K9: 1057		K9: 1045		

EFFECTIVE DATES OF THE DICKEY-JOHN GAC2100 CALIBRATIONS
 LISTED IN ATTACHMENTS 1 and 2.

<u>Grain/Commodity</u>	<u>Calibration</u>	<u>Calibration Effective Date</u>
<u>A. NTEP</u>		
Barley, Six-Rowed	BARLEY SIX ROWED 120320N	May 01, 2012
Barley, Two-Rowed	BARLEY TWO ROWED 120321N	May 01, 2012
Corn	none	
Corn (High-Moisture)	none	
Oats	OATS 100408N	May 01, 2010
Rice, Long Grain Rough	RICE LG ROUGH 120320N	Aug 01, 2012
Rice, Medium Grain Rough	RICE MG ROUGH 120319N	Aug 01, 2012
Sorghum	none	
Soybeans	none	
Sunflower Seed (Oil-Type)	none	
Wheat, Durum	DURUM 110329N	May 01, 2011
Wheat, Hard Red Spring	WHEAT HRS 080326N	May 01, 2008
Wheat, Hard Red Winter	WHEAT HRW 060308N	May 01, 2006
Wheat, Hard White	WHEAT HARD WHITE 080331N	May 01, 2008
Wheat, Soft Red Winter	WHEAT SRW 070327N	May 01, 2007
Wheat, Soft White	WHEAT SOFT WHITE 100405N	May 01, 2010
<u>B. Non-NTEP</u>		
Beans, Black	BEANS BLACK 120410	Aug 01, 2012
Beans, Blackeye	BEANS BLACK EYE 010409	Jun 15, 2001
Beans, Cranberry	BEANS CRANBERRY 010409	Jun 15, 2001
Beans, Garbanzo	BEANS GARBANZO 060308	Aug 01, 2006
Beans, Great Northern	BEANS GR NORTH 120410	Aug 01, 2012
Beans, Kidney (Light and Dark)	BEANS KIDNEY 010418	Jun 15, 2001
Beans, Baby Lima	BEANS BABY LIMA 010409	Jun 15, 2001
Beans, Large Lima	BEANS LARGE LIMA 010411	Jun 15, 2001
Beans, Pea (Navy)	BEANS PEA 120410	Aug 01, 2012
Beans, Pink	BEANS PINK 120410	Aug 01, 2012
Beans, Pinto	BEANS PINTO 990326	Jun 15, 1999
Beans, Small Red	BEANS SM RED 030320	Jul 01, 2003
Beans, Small White	BEANS SM WHITE 990406	Jul 01, 2003
Beans, Yelloweye	BEANS YELLOW EYE 030404	Jul 01, 2003
Canola	CANOLA 100408	Aug 01, 2010
Corn (High-Oil)	none	
Flaxseed	FLAX 000411	Jun 15, 2000

EFFECTIVE DATES OF THE DICKEY-JOHN GAC2100 CALIBRATIONS
 LISTED IN ATTACHMENTS 1 and 2 (Continued)

<u>Grain/Commodity</u>	<u>Calibration</u>	<u>Calibration Effective Date</u>
<u>B. Non-NTEP (Continued)</u>		
Lentils	LENTILS 110330	Aug 1, 2011
Mustard Seed, Brown	MUSTARD BROWN 030324	Jul 01, 2003
Mustard Seed, Oriental	MUSTARD ORIENT 030324	Jul 01, 2003
Mustard Seed, Yellow	MUSTARD YELLOW 030324	Jul 01, 2003
Peas, Austrian Winter	PEAS AUSTR WINTER 030326	Jul 01, 2003
Peas, Smooth Dry	PEAS SMOOTH DRY 000425	Jun 15, 2000
Peas, Split	PEAS SPLIT 030320	Jul 01, 2003
Peas, Wrinkled Dry	PEAS WRINKL DRY 030326	Jul 01, 2003
Popcorn	POPCORN 920104	Jul 01, 2003
Rapeseed	RAPESEED 990426	Jun 15, 1999
Rice, Brewers Milled	RICE BM-SCM-SHM 030417	Sep 01, 2003
Rice, Brewers Milled - Parboiled	RICE BMP-SHMP 030505	Sep 01, 2003
Rice, Long Grain Brown	RICE LG BROWN 100408	Aug 01, 2010
Rice, Long Grain Brown - Parboiled	RICE LG BROWNP 010521	Jun 15, 2001
Rice, Long Grain Milled	RICE LG MILLED 100408	Aug 01, 2010
Rice, Long Grain Milled - Parboiled	RICE LGMILL PAR 020326	Jul 01, 2002
Rice, Medium Grain Brown	RICE MG BROWN 030325	Sep 01, 2003
Rice, Medium Grain Milled	RICE MG MILLED 040331	Sep 01, 2004
Rice, Medium Grain Milled - Parboiled	RICE MGMILL PAR 030507	Sep 01, 2003
Rice, Screenings Milled	RICE BM-SCM-SHM 030417	Sep 01, 2003
Rice, Second Head Milled	RICE BM-SCM-SHM 030417	Sep 01, 2003
Rice, Second Head Milled - Parboiled	RICE BMP-SHMP 030505	Sep 01, 2003
Rice, Short Grain Brown	RICE SG BROWN 030422	Sep 01, 2004
Rice, Short Grain Milled	RICE SG MILLED 030417	Sep 01, 2003
Rice, Short Grain Rough	RICE SG ROUGH 120410	Aug 01, 2012
Rye	RYE 060322	May 01, 2006
Safflower Seed	SAFFLOWER 000405	Jun 15, 2000
Sunflower Seed (Confectionary)	none	
Triticale	TRITICALE 040330	Sep 01, 2004

Table 1. Effective Dates for the Dickey-john GAC2500-UGMA Calibrations.

Grain	Calibration	Calibration Effective Date
Corn	20120611N	September 10, 2012
Grain Sorghum or Milo	20120611N	September 10, 2012
Soybeans	20120611N	September 10, 2012
Sunflower Seed (Oil and Confectionary)	20120611N	September 10, 2012

Table 2. Effective Dates for the Perten AM5200-A Calibrations.

Grain	Calibration*	Calibration Effective Date
Corn	CORN 120621-663.75634-1	September 10, 2012
Grain Sorghum or Milo	SORG 120621-247.77069-1	September 10, 2012
Soybeans	SOY 120604-259.18992-1	September 10, 2012
Sunflower Seed (Oil)	SFS 120604-230-08639-1	September 10, 2012
Sunflower Seed (Confectionary)	SFS 120604-230-08639-1	September 10, 2012

*The calibration version is abbreviated to the alpha characters plus the first six numbers on the instrument printout and on the display. For example, CORN 120621-663.75643-1 is printed and displayed as CORN 120621.

Table 3: Grain Temperature Limits, by Moisture Range, built into Dickey-john GAC2500-UGMA and Perten AM5200-A Moisture Calibrations. (Moisture results are not displayed when temperature ranges are exceeded.)

	Extended Temperature Range: -18 to 45 °C (-0.4 to 113 °F) for Moisture Range:	Temperature Range: 0 to 45 °C (32 to 113 °F) for Moisture Range:
Corn	≤ 19% moisture	> 19% moisture
Grain Sorghum or Milo	≤ 16% moisture	> 16% moisture
Soybeans	≤ 20% moisture	> 20% moisture
Sunflower Seed (Oil)	≤ 12% moisture	> 12% moisture
Sunflower Seed (Confectionary)	≤ 12% moisture	> 12% moisture