

Directive

9180.61

09-01-04

OFFICIAL CALIBRATIONS FOR THE DICKEY-JOHN GAC 2100 MOISTURE METER

1. PURPOSE

This directive transmits the official calibrations for use with the Dickey-john Corporation Grain Analysis Computer (GAC 2100), the moisture meter used by GIPSA for official grain moisture measurement.

2. BACKGROUND

This directive transmits new official calibrations for **Medium Grain Milled Rice, Short Grain Brown Rice, and triticale**. This directive also restates all other calibrations transmitted in the previous directive dated September 1, 2003.

Attachment 1 lists the calibrations for NTEP grains (those grains for which moisture meters are standardized under the National Type Evaluation Program) which were transmitted in the previous directive (September 1, 2003). There were no updates to calibrations for NTEP grains. Attachment 2 lists calibrations for other grains and commodities, of which three are new and the remainder were conveyed in the previous directive.

3. REPLACEMENT HIGHLIGHTS

This directive replaces Directive 9180.61, Official Calibrations for the Dickey-john GAC 2100 Moisture Meter, dated September 1, 2003.

4. PROCEDURES

Use the new calibrations for **Medium Grain Milled Rice, Short Grain Brown Rice, and triticale** inspections performed on and after September 1, 2004. Before official testing on the effective date, enter the new constants as explained in the Operator's Manual (Chapter 6, Page 26).

The names, valid moisture ranges, and constants for official calibrations are given in Attachments 1 and 2. The effective dates of those calibrations are listed in Attachment 3. Average differences between the GAC 2100 and the USDA air oven method are given in Attachment 4 for typical market moisture ranges.

The anti-static shield is **required on instruments used for official testing of processed rice**. Materials and instructions for installing the shield on instruments used for official inspection may be obtained from the Moisture Laboratory, TSD.

The shield is **optional on instruments not used for official testing of processed rice**. Supplies for installing the shield on instruments not used for official inspection may be obtained from Dickey-john Corporation, P.O. Box 10, Auburn, IL 62615-0010; telephone (217) 438-3371.

5. QUESTIONS

Questions concerning these instructions should be directed to Patricia Jackson (816) 891-0445 or James Rampton (816) 891-0450.

/s/ David Orr

David Orr, Director
Field Management Division

Attachments

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

Six-rowed Barley <u>(6 - 20%)</u> BARLEY SIX ROWED 020304N	Two-rowed Barley <u>(8 - 20%)</u> BARLEY TWO ROWED 020304N	Corn <u>(8 - 20%)</u> CORN 000307N	Corn (High-Moisture) <u>(19 - 38%)</u> CORN HI MOIST 020320N	Oats <u>(8 - 18%)</u> OATS 020212N	Long Grain Rough Rice <u>(8 - 26%)</u> RICE LG ROUGH 020319N
K1: 0757	K1: 1366	K1: 1783	K1: 0154	K1: 5176	K1: 1120
K2: 1216	K2: 3998	K2: 7205	K2: 0180	K2: 7464	K2: 3618
K3: 1147	K3: 1313	K3: 1488	K3: 1027	K3: 1339	K3: 1276
K4: 0100	K4: 4577	K4: 8155	K4: 1059	K4: 8994	K4: 4043
K5: 2105	K5: 2105	K5: 2305	K5: 2305	K5: 1705	K5: 1900
K6: 1658	K6: 1081	K6: 2553	K6: 2553	K6: 1654	K6: 2043
K7: 2006	K7: 2008	K7: 2008	K7: 3819	K7: 1808	K7: 2608
K8: 0319	K8: 0377	K8: 0009	K8: 0053	K8: 0683	K8: 0214
K9: 1046	K9: 1056	K9: 1087	K9: 1087	K9: 1038	K9: 1057
Medium Grain Rough Rice <u>(8 - 28%)</u> RICE MG ROUGH 990311N	Sorghum <u>(8 - 28%)</u> SORGHUM 010321N	Soybeans <u>(6 - 24%)</u> SOYBEANS 990217N	Sunflower Seed (Oil-Type) <u>(4 - 22%)</u> SUNFLOWER OIL 000308N	Durum Wheat <u>(6 - 20%)</u> DURUM 990315N	Hard Red Spring Wheat <u>(6 - 22%)</u> WHEAT HRS 990315N
K1: 1356	K1: 0726	K1: 1083	K1: 1144	K1: 0562	K1: 0215
K2: 3636	K2: 3823	K2: 1535	K2: 1368	K2: 3135	K2: 3294
K3: 1255	K3: 1446	K3: 1092	K3: 1048	K3: 1302	K3: 1291
K4: 4179	K4: 2977	K4: 0762	K4: 0573	K4: 2248	K4: 2590
K5: 1900	K5: 2605	K5: 2455	K5: 1305	K5: 2505	K5: 2505
K6: 2053	K6: 1065	K6: 2075	K6: 1575	K6: 1078	K6: 1075
K7: 2808	K7: 2808	K7: 2406	K7: 2204	K7: 2006	K7: 2206
K8: 0230	K8: 1088	K8: 0139	K8: 1774	K8: 0028	K8: 0888
K9: 1057	K9: 1045	K9: 1087	K9: 1048	K9: 1055	K9: 1045
Hard Red Winter Wheat <u>(8 - 22%)</u> WHEAT HRW 990311N	Hard White Wheat <u>(6 - 16%)</u> WHEAT HARD WHITE 990315N	Soft Red Winter Wheat <u>(8 - 22%)</u> WHEAT SRW 990315N	Soft White Wheat <u>(6 - 24%)</u> WHEAT SOFT WHITE 000306N		
K1: 0587	K1: 0610	K1: 0681	K1: 0601		
K2: 1708	K2: 1037	K2: 1158	K2: 1317		
K3: 1233	K3: 1124	K3: 1150	K3: 1169		
K4: 0760	K4: 1001	K4: 0101	K4: 0318		
K5: 2500	K5: 2500	K5: 2505	K5: 2505		
K6: 1074	K6: 1072	K6: 1071	K6: 1072		
K7: 2208	K7: 1606	K7: 2208	K7: 2406		
K8: 0527	K8: 0557	K8: 0436	K8: 1109		
K9: 1045	K9: 1045	K9: 1045	K9: 1045		

OFFICIAL GAC 2100 CALIBRATION CONSTANTS
 for Non-NTEP Commodities

Black Beans (8 - 20%) BEANS BLACK 990415	Blackeye Beans (8 - 18%) BEANS BLACK EYE 010409	Cranberry Beans (8 - 20%) BEANS CRANBERRY 010409	Garbanzo Beans (6 - 18%) BEANS GARBANZO 010410	Great Northern Beans (8 - 20%) BEANS GR NORTH 990426	Kidney Beans (8 - 20%) BEANS KIDNEY 010418
K1: 1673	K1: 0236	K1: 1814	K1: 3212	K1: 1557	K1: 1359
K2: 5429	K2: 1323	K2: 3995	K2: 5646	K2: 3103	K2: 3101
K3: 1352	K3: 1103	K3: 1256	K3: 1327	K3: 1139	K3: 1159
K4: 6177	K4: 0420	K4: 4738	K4: 6661	K4: 2632	K4: 2538
K5: 2605	K5: 2395	K5: 2385	K5: 2565	K5: 2425	K5: 2335
K6: 1097	K6: 2068	K6: 1087	K6: 2080	K6: 1880	K6: 1280
K7: 2008	K7: 1808	K7: 2008	K7: 1806	K7: 2008	K7: 2008
K8: 2304	K8: 0310	K8: 0370	K8: 0366	K8: 2434	K8: 1802
K9: 1077	K9: 1088	K9: 1119	K9: 1049	K9: 1098	K9: 1109

Baby Lima Beans (8 - 18%) BEANS BABY LIMA 010409	Large Lima Beans (9 - 15%) BEANS LARGE LIMA 010411	Pea Beans (8 - 20%) BEANS PEA-SM WH 990406	Pink Beans (8 - 20%) BEANS PINK 030320	Pinto Beans (8 - 18%) BEANS PINTO 990326	Small Red Beans (8-18%) BEANS SM RED 030320
K1: 1393	K1: 1125	K1: 1139	K1: 1356	K1: 3390	K1: 1854
K2: 3057	K2: 1492	K2: 3109	K2: 1960	K2: 5752	K2: 5307
K3: 1151	K3: 1081	K3: 1190	K3: 1139	K3: 1317	K3: 1304
K4: 2506	K4: 0749	K4: 2457	K4: 2385	K4: 6836	K4: 6101
K5: 2555	K5: 2275	K5: 2675	K5: 2455	K5: 2445	K5: 2505
K6: 2073	K6: 2085	K6: 1086	K6: 1873	K6: 2073	K6: 1089
K7: 1808	K7: 1509	K7: 2008	K7: 2008	K7: 1808	K7: 1808
K8: 0347	K8: 0377	K8: 2150	K8: 1814	K8: 2073	K8: 1863
K9: 1109	K9: 1149	K9: 1077	K9: 1108	K9: 1098	K9: 1098

Small White Beans (8 - 20%) BEANS PEA-SM WH 990406	Yelloweye Beans (10 - 18%) BEANS YELLOW EYE 030404	Canola (4 - 15%) CANOLA 990426	Corn (High-Oil) (6 - 30%) CORN (HIGH-OIL) 990422	Flaxseed (5 - 15%) FLAX 000411	Lentils (7 - 15%) LENTILS 000417
K1: 1139	K1: 1392	K1: 0013	K1: 0437	K1: 0114	K1: 0661
K2: 3109	K2: 3024	K2: 1425	K2: 1699	K2: 1394	K2: 1093
K3: 1190	K3: 1149	K3: 1084	K3: 1211	K3: 1090	K3: 1122
K4: 2457	K4: 2482	K4: 0582	K4: 0815	K4: 0501	K4: 0002
K5: 2675	K5: 2455	K5: 2201	K5: 2305	K5: 2255	K5: 2505
K6: 1086	K6: 1881	K6: 1369	K6: 2560	K6: 1557	K6: 2075
K7: 2008	K7: 1810	K7: 1504	K7: 3006	K7: 1505	K7: 1507
K8: 2150	K8: 1095	K8: 2242	K8: 1988	K8: 1202	K8: 1096
K9: 1077	K9: 1108	K9: 1024	K9: 1087	K9: 1034	K9: 1087

OFFICIAL GAC 2100 CALIBRATION CONSTANTS
 for Non-NTEP Commodities

<u>Brown Mustard Seed</u> (5 - 14%) MUSTARD BROWN 030324	<u>Oriental Mustard Seed</u> (5 - 14%) MUSTARD ORIENT 030324	<u>Yellow Mustard Seed</u> (5 - 14%) MUSTARD YELLOW 030324	<u>Austrian Winter Peas</u> (8 - 14%) PEAS AUST WINTER 030326	<u>Smooth Dry Peas</u> (8 - 19%) PEAS SMOOTH DRY 000425	<u>Split Peas</u> (8 - 14%) 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
<u>Wrinkled Dry Peas</u> (6 - 12%) PEAS WRINKL DRY 030326	<u>Popcorn</u> (6 - 26%) POPCORN 920104	<u>Rapeseed</u> (4 - 15%) RAPESEED 990426	<u>Brewers Milled Rice</u> (10 - 15%) RICE BM-SCM-SHM 030417	<u>Brewers Milled Rice - Parboiled</u> (10 - 14%) RICE BMP-SHMP 030505	<u>Long Grain Brown Rice</u> (10 - 21%) RICE LG BROWN 990527
K1: 1893	K1: 0657	K1: 0013	K1: 0732	K1: 0429	K1: 2370
K2: 5190	K2: 1270	K2: 1425	K2: 3804	K2: 1926	K2: 1626
K3: 1282	K3: 1180	K3: 1084	K3: 1472	K3: 1244	K3: 1337
K4: 4999	K4: 0260	K4: 0582	K4: 4000	K4: 2029	K4: 0400
K5: 2445	K5: 2650	K5: 2201	K5: 2800	K5: 2800	K5: 2410
K6: 1893	K6: 2060	K6: 1369	K6: 1054	K6: 1038	K6: 1073
K7: 1206	K7: 2606	K7: 1504	K7: 1510	K7: 1410	K7: 2110
K8: 0382	K8: 1669	K8: 1450	K8: 0295	K8: 0236	K8: 0251
K9: 1068	K9: 1074	K9: 1024	K9: 1024	K9: 1024	K9: 1055
<u>L G Brown Rice - Parboiled</u> (10 - 14%) RICE LG BROWNP 010521	<u>Long Grain Milled Rice</u> (10 - 20%) RICE LG MILLED 990721	<u>L G Milled Rice - Parboiled</u> (8 - 20%) RICE LGMILL PAR 020326	<u>Medium Grain Brown Rice</u> (10 - 20%) RICE MG BROWN 030325	<u>Medium Grain Milled Rice</u> (10 - 16%) RICE MG MILLED 040331	<u>M G Milled Rice - Parboiled</u> (10 - 14%) RICE MGMILL PAR 030507
K1: 1623	K1: 1764	K1: 1470	K1: 2100	K1: 2387	K1: 1454
K2: 0465	K2: 0484	K2: 0411	K2: 1333	K2: 7751	K2: 0400
K3: 0087	K3: 0121	K3: 0058	K3: 1251	K3: 1919	K3: 0057
K4: 0001	K4: 0001	K4: 0001	K4: 0164	K4: 8002	K4: 0001
K5: 2500	K5: 2630	K5: 2460	K5: 2550	K5: 2770	K5: 2460
K6: 2065	K6: 1057	K6: 1085	K6: 1072	K6: 1061	K6: 1088
K7: 1410	K7: 2010	K7: 2008	K7: 2010	K7: 1610	K7: 1410
K8: 0259	K8: 0342	K8: 0223	K8: 0216	K8: 0345	K8: 1054
K9: 1054	K9: 1055	K9: 1055	K9: 1045	K9: 1045	K9: 1045

OFFICIAL GAC 2100 CALIBRATION CONSTANTS
 for Non-NTEP Commodities

Screenings Milled Rice (10-15%) RICE BM-SCM-SHM 030417	Second Head Milled Rice (10-15%) RICE BM-SCM-SHM 030417	S H Milled Rice - Parboiled (10-14%) RICE BMP-SHMP 030505	Short Grain Brown Rice (10-18%) RICE SG BROWN 030422	Short Grain Milled Rice (10-16%) RICE SG MILLED 030417	Short Grain Rough Rice (10 - 26%) RICE SG ROUGH 020327
K1: 0732	K1: 0732	K1: 0429	K1: 0443	K1: 0115	K1: 1441
K2: 3804	K2: 3804	K2: 1926	K2: 5583	K2: 0157	K2: 3846
K3: 1472	K3: 1472	K3: 1244	K3: 1561	K3: 1047	K3: 1280
K4: 4000	K4: 4000	K4: 2029	K4: 6001	K4: 0001	K4: 4455
K5: 2800	K5: 2800	K5: 2800	K5: 2550	K5: 2850	K5: 1900
K6: 1054	K6: 1054	K6: 1038	K6: 1085	K6: 1056	K6: 2058
K7: 1510	K7: 1510	K7: 1410	K7: 1810	K7: 1610	K7: 2610
K8: 0295	K8: 0295	K8: 0236	K8: 1070	K8: 1088	K8: 0233
K9: 1024	K9: 1024	K9: 1024	K9: 1045	K9: 1045	K9: 1047

Rye (8 - 20%) RYE 990426	Safflower Seed (4 - 14%) SAFFLOWER 000405	Sunflower Seed (Confectionary) (5 - 17%) SUNFL CONFECT 000413	Triticale (8-15%) TRITICALE 040330
K1: 0402	K1: 1690	K1: 1744	K1: 0500
K2: 1305	K2: 3005	K2: 1791	K2: 1898
K3: 1138	K3: 1093	K3: 1057	K3: 1246
K4: 0390	K4: 2518	K4: 2355	K4: 0998
K5: 2265	K5: 1605	K5: 1015	K5: 2420
K6: 1081	K6: 1549	K6: 1562	K6: 1074
K7: 2008	K7: 1404	K7: 1705	K7: 1508
K8: 1305	K8: 1880	K8: 1701	K8: 1548
K9: 1055	K9: 1057	K9: 1089	K9: 1045

EFFECTIVE DATES OF 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 020304N	May 06, 2002
Barley, Two-Rowed	BARLEY TWO ROWED 020304N	May 06, 2002
Corn	CORN 000307N	Aug 01, 2000
Corn (High-Moisture)	CORN HI MOIST 020320N	May 06, 2002
Oats	OATS 020212N	May 06, 2002
Rice, Long Grain Rough	RICE LG ROUGH 020319N	May 06, 2002
Rice, Medium Grain Rough	RICE MG ROUGH 990311N	May 01, 1999
Sorghum	SORGHUM 010321N	May 15, 2001
Soybeans	SOYBEANS 990217N	Feb 22, 1999
Sunflower Seed (Oil-Type)	SUNFLOWER OIL 000308N	Aug 01, 2000
Wheat, Durum	DURUM 990315N	May 01, 1999
Wheat, Hard Red Spring	WHEAT HRS 990315N	May 01, 1999
Wheat, Hard Red Winter	WHEAT HRW 990311N	May 01, 1999
Wheat, Hard White	WHEAT HARD WHITE 990315N	May 01, 1999
Wheat, Soft Red Winter	WHEAT SRW 990315N	May 01, 1999
Wheat, Soft White	WHEAT SOFT WHITE 000306N	May 07, 2000
<u>B. Non-NTEP</u>		
Beans, Black	BEANS BLACK 990415	Jun 15, 1999
Beans, Blackeye	BEANS BLACK EYE 010409	Jun 15, 2001
Beans, Cranberry	BEANS CRANBERRY 010409	Jun 15, 2001
Beans, Garbanzo	BEANS GARBANZO 010410	Jul 01, 2002
Beans, Great Northern	BEANS GR NORTH 990426	Jun 15, 1999
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-SM WH 990406	Jun 15, 1999
Beans, Pink	BEANS PINK 030320	Jul 01, 2003
Beans, Pinto	BEANS PINTO 990326	Jun 15, 1999
Beans, Small Red	BEANS SM RED 030320	Jul 01, 2003
Beans, Small White	BEANS PEA-SM WH 990406	Jul 01, 2003
Beans, Yelloweye	BEANS YELLOW EYE 030404	Jul 01, 2003
Canola	CANOLA 990426	Jun 15, 1999
Corn (High-Oil)	CORN (HIGH-OIL) 990422	Jun 15, 1999
Flaxseed	FLAX 000411	Jun 15, 2000

EFFECTIVE DATES OF 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 000417	Jun 15, 2000
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 990527	May 15, 2001
Rice, Long Grain Brown - Parboiled	RICE LG BROWNP PAR 010521	Jun 15, 2001
Rice, Long Grain Milled	RICE LG MILLED 990721	May 15, 2001
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 020327	Jul 01, 2002
Rye	RYE 990426	Jun 15, 1999
Safflower Seed	SAFFLOWER 000405	Jun 15, 2000
Sunflower Seed (Confectionary)	SUNFL CONFECT 000413	Aug 01, 2000
Triticale	TRITICALE 040330	Sep 01, 2004

* Indicates transition from Motomco 919 to Dickey-john GAC 2100

ACCURACY OF OFFICIAL / NTEP GAC 2100 CALIBRATIONS*
 Average Differences (GAC 2100 minus Air Oven), as Percent Moisture

Moisture <u>Interval</u> (%)	Six-rowed <u>Barley</u> (%)	Two-rowed <u>Barley</u> (%)	<u>Corn</u> (%)	<u>Oats</u> (%)	Long Grain <u>Rough Rice</u> (%)	Medium Grain <u>Rough Rice</u> (%)
8-10	+0.03	+0.09	--	-0.18	-0.27	-0.16
10-12	-0.11	+0.04	0.00	-0.04	+0.02	+0.13
12-14	-0.17	0.00	+0.02	+0.07	-0.33	-0.24
14-16	+0.06	+0.12	+0.04	-0.14	-0.44	-0.21
16-18	--	--	-0.05	--	-0.40	-0.03
18-20	--	--	-0.01	--	-0.48	+0.12

Moisture <u>Interval</u> (%)	<u>Sorghum</u> (%)	<u>Soybeans</u> (%)	Sunflower Seed <u>(Oil-Type)</u> (%)	Durum <u>Wheat</u> (%)	Hard Red <u>Spring Wheat</u> (%)	Hard Red <u>Winter Wheat</u> (%)
6-8	--	--	-0.18	--	--	--
8-10	--	+0.20	-0.08	+0.05	+0.04	+0.13
10-12	+0.17	+0.15	-0.10	+0.17	+0.19	+0.21
12-14	+0.34	+0.17	-0.16	+0.08	0.00	+0.09
14-16	+0.25	-0.02	--	+0.14	+0.01	-0.02
16-18	-0.09	+0.03	--	+0.09	-0.11	-0.22

Moisture <u>Interval</u> (%)	Hard White <u>Wheat</u> (%)	Soft Red <u>Winter Wheat</u> (%)	Soft White <u>Wheat</u> (%)	Moisture <u>Interval</u> (%)	Corn (High- <u>Moisture</u>) (%)
6-8	--	--	--	20-22	+0.27
8-10	+0.17	--	+0.12	22-24	+0.44
10-12	-0.07	+0.07	+0.17	24-26	+0.13
12-14	-0.46	+0.05	0.00	26-28	+0.30
14-16	--	+0.03	+0.09	28-30	-0.19
16-18	--	-0.04	--		

* For typical market moisture ranges
 Basis: U.S. nationwide sample set, 3 years' data, most recent review

ACCURACY of OFFICIAL non-NTEP GAC 2100 CALIBRATIONS*
 Average Differences (GAC 2100 minus Air Oven), as Percent Moisture

Moisture <u>Interval</u> (%)	Black <u>Beans</u> (%)	Blackeye <u>Beans</u> (%)	Cranberry <u>Beans</u> (%)	Garbanzo <u>Beans</u> (%)	Great Northern <u>Beans</u> (%)	Kidney <u>Beans</u> (%)
6-8	--	--	--	+0.03	--	--
8-10	--	+0.05	--	-0.04	--	+0.22
10-12	-0.17	-0.04	+0.03	-0.02	-0.09	0.00
12-14	+0.07	-0.04	+0.06	--	+0.18	-0.01
14-16	-0.03	+0.12	0.00	--	--	+0.06
16-18	-0.03	--	-0.08	--	--	+0.10
18-20	--	--	--	--	--	+0.02

Moisture <u>Interval</u> (%)	Baby Lima <u>Beans</u> (%)	Large Lima <u>Beans</u> (%)	Pea (Navy) <u>Beans</u> (%)	Pink <u>Beans</u> (%)	Pinto <u>Beans</u> (%)	Small Red <u>Beans</u> (%)
8-10	+0.05	--	--	+0.02	0.00	0.00
10-12	-0.05	+0.03	-0.08	+0.10	+0.09	+0.05
12-14	-0.06	-0.02	-0.01	-0.02	+0.08	+0.04
14-16	-0.04	--	+0.09	+0.07	0.00	+0.06
16-18	--	--	-0.09	-0.34	-0.22	-0.24
18-20	--	--	-0.11	--	--	--

Moisture <u>Interval</u> (%)	Yelloweye <u>Beans</u> (%)	Austrian <u>Winter Peas</u> (%)	Smooth <u>Dry Peas</u> (%)	Split <u>Peas</u> (%)	Wrinkled <u>Dry Peas</u> (%)	<u>Lentils</u> (%)
6-8	--	--	--	--	+0.13	--
8-10	--	-0.06	+0.03	+0.09	+0.11	-0.03
10-12	--	-0.07	-0.24	0.00	-0.16	-0.03
12-14	-0.05	--	+0.10	+0.02	--	--
14-16	--	--	-0.18	--	--	--

* For typical market moisture ranges
 Basis: U.S. nationwide sample set, most recent review

ACCURACY of OFFICIAL non-NTEP GAC 2100 CALIBRATIONS*
 Average Differences (GAC 2100 minus Air Oven), as Percent Moisture

Moisture Interval (%)	Canola (%)	Flaxseed (%)	Mustard Seed (Brown) (%)	Mustard Seed (Oriental) (%)	Mustard Seed (Yellow) (%)	Rapeseed (%)
4-6	+0.06	+0.05	--	--	+0.10	-0.05
6-8	-0.08	-0.02	--	+0.05	-0.01	-0.17
8-10	+0.07	+0.04	-0.02	+0.06	-0.06	--
10-12	--	--	--	--	-0.22	--
12-14	--	--	--	--	--	--

Moisture Interval (%)	Safflower Seed (%)	Sunflower Seed (Confection.) (%)	Rye (%)	Brewers Milled Rice (%)	Brewers Milled Rice (Parboiled) (%)	Long Grain Brown Rice (%)
4-6	+0.03	+0.29	--	--	--	--
6-8	+0.03	-0.03	--	--	--	--
8-10	0.00	-0.11	--	--	--	--
10-12	-0.37	+0.06	-0.04	-0.18	-0.06	+0.14
12-14	--	+0.04	-0.07	-0.14	--	+0.11

Moisture Interval (%)	Long Grain Brown Rice (Parboiled) (%)	Long Grain Milled Rice (%)	Long Grain Milled Rice (Parboiled) (%)	Medium Grain Brown Rice (%)	Medium Grain Milled Rice (%)	Medium Grain Milled Rice (Parboiled) (%)
8-10	--	--	--	--	--	--
10-12	-0.12	+0.10	+0.02	+0.26	+0.08	0.00
12-14	-0.02	+0.09	-0.11	+0.05	+0.03	--
14-16	--	-0.17	-0.21	+0.01	+0.04	--
16-18	--	--	--	-0.13	--	--

* For typical market moisture ranges
 Basis: U.S. nationwide sample set, most recent review

ACCURACY of OFFICIAL non-NTEP GAC 2100 CALIBRATIONS*
 Average Differences (GAC 2100 minus Air Oven), as Percent Moisture

Moisture Interval (%)	Second Head				
	Second Head Milled Rice (%)	Milled Rice (Parboiled) (%)	Short Grain Brown Rice (%)	Short Grain Milled Rice (%)	Short Grain Rough Rice (%)
8-10	--	--	--	--	--
10-12	--	+0.08	+0.15	+0.24	-0.04
12-14	+0.03	--	+0.05	+0.05	+0.19
14-16	+0.08	--	+0.11	0.00	+0.17
16-18	--	--	-0.12	--	+0.30

Moisture Interval (%)	Corn (High-Oil) (%)	Popcorn (%)	Triticale
	8-10	-0.01	--
10-12	0.00	--	-0.24
12-14	-0.12	+0.34	+0.05
14-16	-0.03	+0.21	--
16-18	+0.20	--	--
18-20	+0.20	--	--

* For typical market moisture ranges
 Basis: U.S. nationwide sample set, most recent review