



**Dave Heineman**  
Governor

# State of Nebraska

DEPARTMENT OF AGRICULTURE  
**GREGORY A. IBACH**  
Director

*Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524*

## **CERTIFICATION FOR STANDARDS OF MEASUREMENT**

**Agency:** Dept of Ag. - Weights & Measures  
Area 35  
Minden, NE -

**Date:** 8/8/2011  
**Agency ID:** 35  
**NE Cert No:** 20110094  
**P.O. No:**

**Submitted By:**

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
50 lb	A5C-1	1	F	A
50 lb	A5C-11	1	F	A
50 lb	A5C-4	1	F	A
1000 lb	B10	1	F	A
1000 lb	B11	1	F	A
1000 lb	B12	1	F	A
1000 lb	B13	1	F	A
1000 lb	B14	1	F	A
1000 lb	B17	1	F	A
1000 lb	B18	1	F	A
1000 lb	B19	1	F	A
1000 lb	B2	1	F	A
1000 lb	B20	1	F	A
1000 lb	B21	1	F	A
1000 lb	B22	1	F	A
1000 lb	B23	1	F	A
1000 lb	B3	1	F	A
1000 lb	B4	1	F	A
1000 lb	B5	1	F	A
1000 lb	B6	1	F	A
1000 lb	B7	1	F	A
1000 lb	B8	1	F	A
1000 lb	B9	1	F	A
50 lb	B-C-1	1	F	A
50 lb	B-C-10	1	F	A

**Department of Agriculture, 301 Centennial Mall South**  
**Web Site: [www.agr.ne.gov](http://www.agr.ne.gov)**

Administration  
P.O. Box 94947  
Lincoln, NE 68509-4947  
(402) 471-2341  
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Agriculture Laboratories  
3703 South 14<sup>th</sup> Street  
Lincoln, NE 68502-5399  
(402) 471-2176  
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Bureau of Animal Industry  
P.O. Box 94987  
Lincoln, NE 68509-4787  
(402) 471-2351  
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Bureau of Dairies & Foods  
P.O. Box 95064  
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Lincoln, NE 68509-4756  
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Weights and Measures  
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Lincoln, NE 68509-4757  
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FAX: (402) 471-2759

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
50 lb	B-C-11	1	F	A
50 lb	B-C-12	1	F	A
50 lb	B-C-2	1	F	A
50 lb	B-C-3	1	F	A
50 lb	B-C-4	1	F	A
50 lb	B-C-5	1	F	A
50 lb	B-C-6	1	F	A
50 lb	B-C-7	1	F	A
50 lb	B-C-8	1	F	A
50 lb	B-C-9	1	F	A
2 kg	K2	1	F	A
1000 lb	OA20	1	F	A
25 lb	OPI-D1	1	F	A
1 kg	WM-2-89-3	1	F	A
500 g	WM-2-89-3	2	F	A
200 g	WM-2-89-3	3	F	A
200 g*	WM-2-89-3	4	F	A
100 g	WM-2-89-3	5	F	A
50 g	WM-2-89-3	6	F	A
20 g	WM-2-89-3	7	F	A
20 g*	WM-2-89-3	8	F	A
10 g	WM-2-89-3	9	F	A
5 g	WM-2-89-3	10	F	A
2 g*	WM-2-89-3	12	F	A
1 g	WM-2-89-3	13	F	A
500 mg	WM-2-89-3	14	F	A
200 mg	WM-2-89-3	15	F	A
200 mg*	WM-2-89-3	16	F	A
100 mg	WM-2-89-3	17	F	A
5 lb	WM-2B86	1	F	A
5 lb	WM-2B86	2	F	A
5 lb	WM-2B86	3	F	A
5 lb	WM-2B86	4	F	A
5 lb	WM-2B86	5	F	A
1 lb	WM-2B86	6	F	A
1 lb	WM-2B86	7	F	A

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Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
1 lb	WM-2B86	8	F	A
1 lb	WM-2B86	9	F	A
1 lb	WM-2B86	10	F	A
8 oz	WM-2B86	11	F	A
4 oz	WM-2B86	12	F	A
4 oz	WM-2B86	13	F	A
2 oz	WM-2B86	14	F	A
1 oz	WM-2B86	15	F	A
0.5 oz	WM-2B86	16	F	A
0.25 oz	WM-2B86	17	F	A
0.125 oz	WM-2B86	18	F	A
50 lb	WM50-12	1	F	A
50 lb	WM50-16	1	F	A
50 lb	WM50-52	1	F	A
50 lb	WM50-53	1	F	A
50 lb	WM50-7	1	F	A
25 lb	WM-D15	1	F	A
25 lb	WM-D21	1	F	A
25 lb	WM-D22	1	F	A
25 lb	WM-D23	1	F	A
25 lb	WM-D24	1	F	A
25 lb	WM-D25	1	F	A
25 lb	WM-D26	1	F	A
25 lb	WM-D28	1	F	A
25 lb	WM-D29	1	F	A
25 lb	WM-D44	1	F	A
25 lb	WM-OPI-D3	1	F	A

These field standards have been compared with our reference standards and found to be within the tolerances for their class, or condemned, as prescribed by the National Institute of Standards and Technology. These field standards also meet the required specifications.

The reference standards used are traceable to the National Institute of Standards and Technology (NIST). Our traceability is maintained through control charts, regional inter-comparisons and periodic recertifications. This certificate is issued by the Nebraska Department of Agriculture / Division of Weights and Measures. Reproduction of this certificate must include the entire document (including all attached papers).

See 'Test Results' attached

See report/letter attached



Craig E. Olsen

Nebraska State Metrologist

**Nebraska Standards Laboratory**  
**3721 West Cuming Street**  
**Lincoln, NE 68524**  
**(402) 471-2087**

**SOP 8 - Modified Substitution Test Results**

*Form No.: NE04LF9-R00*

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 Area 35  
 Minden, NE -

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
A5C-1	1	0	50 lb	KA30-3_50lb	NSL-50-1	0.1651509 g	2.3 g	0.0500237 g	A
A5C-11	1	0	50 lb	KA30-3_50lb	NSL-50-1	1.0151509 g	2.3 g	0.0500237 g	A
A5C-4	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.7548491 g	2.3 g	0.0500237 g	A
B10	1	0	1000 lb	P604KM_1000 I	C24	17.0074183 g	45 g	2.1254302 g	A
B11	1	0	1000 lb	P604KM_1000 I	C24	-19.6925817 g	45 g	2.1254302 g	A
B12	1	0	1000 lb	P604KM_1000 I	C24	146.7074183 g	45 g	2.1254302 g	R
B12	1	1	1000 lb	P604KM_1000 I	C24	7.4074183 g	45 g	2.1254302 g	A
B13	1	0	1000 lb	P604KM_1000 I	C24	-13.9925817 g	45 g	2.1254302 g	A
B14	1	0	1000 lb	P604KM_1000 I	C24	-38.6925817 g	45 g	2.1254302 g	A
B17	1	0	1000 lb	P604KM_1000 I	C24	-8.1925817 g	45 g	2.1254302 g	A
B18	1	0	1000 lb	P604KM_1000 I	C24	9.7074183 g	45 g	2.1254302 g	A
B19	1	0	1000 lb	P604KM_1000 I	C24	11.2074183 g	45 g	2.1254302 g	A
B2	1	0	1000 lb	P604KM_1000 I	C24	2.6074183 g	45 g	2.1254302 g	A
B20	1	0	1000 lb	P604KM_1000 I	C24	2.4074183 g	45 g	2.1254302 g	A
B21	1	0	1000 lb	P604KM_1000 I	C24	5.6074183 g	45 g	2.1254302 g	A
B21	1	1	1000 lb	P604KM_1000 I	C24	6.4074183 g	45 g	2.1254302 g	A
B22	1	0	1000 lb	P604KM_1000 I	C24	6.9074183 g	45 g	2.1254302 g	A
B23	1	0	1000 lb	P604KM_1000 I	C24	13.2074183 g	45 g	2.1254302 g	A
B3	1	0	1000 lb	P604KM_1000 I	C24	1.6074183 g	45 g	2.1254302 g	A
B4	1	0	1000 lb	P604KM_1000 I	C24	7.8074183 g	45 g	2.1254302 g	A
B5	1	0	1000 lb	P604KM_1000 I	C24	-56.3925817 g	45 g	2.1254302 g	R
B5	1	1	1000 lb	P604KM_1000 I	C24	16.9074183 g	45 g	2.1254302 g	A
B6	1	0	1000 lb	P604KM_1000 I	C24	6.0074183 g	45 g	2.1254302 g	A
B7	1	0	1000 lb	P604KM_1000 I	C24	20.7074183 g	45 g	2.1254302 g	A
B8	1	0	1000 lb	P604KM_1000 I	C24	12.5074183 g	45 g	2.1254302 g	A
B9	1	0	1000 lb	P604KM_1000 I	C24	28.8074183 g	45 g	2.1254302 g	A

*Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error*

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*"As received" values for weights may not be a true "as found" value because these weights could have been cleaned and/or repainted prior to submission to this lab. Due to handling, storage and/or environmental factors; the reported values are valid only while test items are within our control. No calibration period or interval is given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

Agency ID: 35  
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 Minden, NE -

NE Cert No: 20110094  
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 Observer: CEO

Submitted By:

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
B-C-1	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.2548491 g	2.3 g	0.0500237 g	A
B-C-10	1	0	50 lb	KA30-3_50lb	NSL-50-1	-2.8348491 g	2.3 g	0.0500237 g	R
B-C-10	1	1	50 lb	KA30-3_50lb	NSL-50-1	-0.2298491 g	2.3 g	0.0500237 g	A
B-C-11	1	0	50 lb	KA30-3_50lb	NSL-50-1	-2.8398491 g	2.3 g	0.0500237 g	R
B-C-11	1	1	50 lb	KA30-3_50lb	NSL-50-1	-0.1898491 g	2.3 g	0.0500237 g	A
B-C-12	1	0	50 lb	KA30-3_50lb	NSL-50-1	-3.4198491 g	2.3 g	0.0500237 g	R
B-C-12	1	1	50 lb	KA30-3_50lb	NSL-50-1	0.2801509 g	2.3 g	0.0500237 g	A
B-C-2	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.1148491 g	2.3 g	0.0500237 g	A
B-C-3	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.4948491 g	2.3 g	0.0500237 g	A
B-C-4	1	0	50 lb	KA30-3_50lb	NSL-50-1	1.0601509 g	2.3 g	0.0500237 g	A
B-C-5	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.7298491 g	2.3 g	0.0500237 g	A
B-C-6	1	0	50 lb	KA30-3_50lb	NSL-50-1	-3.4398491 g	2.3 g	0.0500237 g	R
B-C-6	1	1	50 lb	KA30-3_50lb	NSL-50-1	-0.1048491 g	2.3 g	0.0500237 g	A
B-C-7	1	0	50 lb	KA30-3_50lb	NSL-50-1	-3.4198491 g	2.3 g	0.0500237 g	R
B-C-7	1	1	50 lb	KA30-3_50lb	NSL-50-1	0.6851509 g	2.3 g	0.0500237 g	A
B-C-8	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.7698491 g	2.3 g	0.0500237 g	A
B-C-9	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.8348491 g	2.3 g	0.0500237 g	A
K2	1	0	2 kg	CC10000S-2 kg	2kgd	-0.1720774 g	0.2 g	0.0011286 g	A
OA20	1	0	1000 lb	P604KM_1000 I	C24	57.6074183 g	45 g	2.1254302 g	R
OA20	1	1	1000 lb	P604KM_1000 I	C24	11.0074183 g	45 g	2.1254302 g	A
OPI-D1	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.1281902 g	1.1 g	0.0353136 g	A
WM-2-89-3	1	0	1 kg	CC1201-kg	1kgd	0.0518716 g	0.1 g	0.0002915 g	A
WM-2-89-3	2	0	500 g	CC1201-kg	500gd	0.0395294 g	0.07 g	0.0002858 g	A
WM-2-89-3	3	0	200 g	CC1201-kg	200gd	0.0222214 g	0.04 g	0.0002842 g	A
WM-2-89-3	4	0	200 g*	CC1201-kg	200gd	0.0208214 g	0.04 g	0.0002842 g	A
WM-2-89-3	5	0	100 g	AT106-gm	100gv	-0.0001475 g	0.02 g	0.0000280 g	A
WM-2-89-3	6	0	50 g	AT106-gm	50gv	0.0060298 g	0.01 g	0.0000233 g	A
WM-2-89-3	7	0	20 g	AT106-gm	20gv	-0.0008974 g	0.004 g	0.0000217 g	A
WM-2-89-3	8	0	20 g*	AT106-gm	20gv	0.0000496 g	0.004 g	0.0000217 g	A
WM-2-89-3	9	0	10 g	AT106-gm	10gv	-0.0000018 g	0.002 g	0.0000217 g	A
WM-2-89-3	10	0	5 g	CCE6_gm	5gv	-0.0005063 g	0.0015 g	0.0000075 g	A
WM-2-89-3	12	0	2 g*	CCE6_gm	2gv	0.0006247 g	0.0011 g	0.0000027 g	A
WM-2-89-3	13	0	1 g	CCE6_gm	1gv	0.0005158 g	0.0009 g	0.0000026 g	A

*Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error*

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
WM-2-89-3	14	0	500 mg	CCE6_gm	500mgv	0.0004908 g	0.00072 g	0.0000025 g	A
WM-2-89-3	15	0	200 mg	CCE6_gm	200mgv	0.0003067 g	0.00054 g	0.0000024 g	A
WM-2-89-3	16	0	200 mg*	CCE6_gm	200mgv	0.0003579 g	0.00054 g	0.0000024 g	A
WM-2-89-3	17	0	100 mg	CCE6_gm	100mgv	-0.0001079 g	0.00043 g	0.0000025 g	A
WM-2B86	1	0	5 lb	CC10000S-5 lb	NSL-5-1	-0.0234297 g	0.23 g	0.0016858 g	A
WM-2B86	2	0	5 lb	CC10000S-5 lb	NSL-5-1	-0.0048297 g	0.23 g	0.0016858 g	A
WM-2B86	3	0	5 lb	CC10000S-5 lb	NSL-5-1	-0.0591297 g	0.23 g	0.0016858 g	A
WM-2B86	4	0	5 lb	CC10000S-5 lb	NSL-5-1	-0.0193297 g	0.23 g	0.0016858 g	A
WM-2B86	5	0	5 lb	CC10000S-5 lb	NSL-5-1	0.0037703 g	0.23 g	0.0016858 g	A
WM-2B86	6	0	1 lb	CC1201-lb	NSL-1-1	-0.0082727 g	0.07 g	0.0023373 g	A
WM-2B86	7	0	1 lb	CC1201-lb	NSL-1-1	-0.0116727 g	0.07 g	0.0023373 g	A
WM-2B86	8	0	1 lb	CC1201-lb	NSL-1-1	0.0105273 g	0.07 g	0.0023373 g	A
WM-2B86	9	0	1 lb	CC1201-lb	NSL-1-1	-0.0114727 g	0.07 g	0.0023373 g	A
WM-2B86	10	0	1 lb	CC1201-lb	NSL-1-1	-0.0057727 g	0.07 g	0.0023373 g	A
WM-2B86	11	0	8 oz	CC1201-lb	NSL-8-1	-0.0019671 g	0.045 g	0.0023351 g	A
WM-2B86	12	0	4 oz	CC1201-lb	NSL-Z	-0.0179040 g	0.023 g	0.0023325 g	A
WM-2B86	13	0	4 oz	CC1201-lb	NSL-Z	0.0094960 g	0.023 g	0.0023325 g	A
WM-2B86	14	0	2 oz	AT106-lb	NSL-Y	0.0027262 g	0.011 g	0.0000638 g	A
WM-2B86	15	0	1 oz	AT106-lb	2A9-1oz	-0.0000741 g	0.0054 g	0.0003671 g	A
WM-2B86	16	0	0.5 oz	AT106-lb	2A9-1.2oz	0.0000929 g	0.0028 g	0.0003670 g	A
WM-2B86	17	0	0.25 oz	AT106-lb	2A9-1.4oz	-0.0000615 g	0.0017 g	0.0000557 g	A
WM-2B86	18	0	0.125 oz	AT106-lb	2A9-1.8oz	0.0001988 g	0.0013 g	0.0000537 g	A
WM50-12	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.6398491 g	2.3 g	0.0500237 g	A
WM50-16	1	0	50 lb	KA30-3_50lb	NSL-50-1	-5.8148491 g	2.3 g	0.0500237 g	R
WM50-16	1	1	50 lb	KA30-3_50lb	NSL-50-1	0.7101509 g	2.3 g	0.0500237 g	A
WM50-52	1	0	50 lb	KA30-3_50lb	NSL-50-1	-4.9998491 g	2.3 g	0.0500237 g	R
WM50-52	1	1	50 lb	KA30-3_50lb	NSL-50-1	0.4151509 g	2.3 g	0.0500237 g	A
WM50-53	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.3098491 g	2.3 g	0.0500237 g	A
WM50-7	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.7798491 g	2.3 g	0.0500237 g	A
WM-D15	1	0	25 lb	KA30-3_25lb	NSL-25-1	-3.7681902 g	1.1 g	0.0353136 g	R
WM-D15	1	1	25 lb	KA30-3_25lb	NSL-25-1	-0.2431902 g	1.1 g	0.0353136 g	A
WM-D21	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.4381902 g	1.1 g	0.0353136 g	A
WM-D22	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.3018098 g	1.1 g	0.0353136 g	A

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WM-D23	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.8281902 g	1.1 g	0.0353136 g	A
WM-D24	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.5268098 g	1.1 g	0.0353136 g	A
WM-D25	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.7831902 g	1.1 g	0.0353136 g	A
WM-D26	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.3481902 g	1.1 g	0.0353136 g	A
WM-D28	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.1131902 g	1.1 g	0.0353136 g	A
WM-D29	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.1768098 g	1.1 g	0.0353136 g	A
WM-D44	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.2481902 g	1.1 g	0.0353136 g	A
WM-OPI-D3	1	0	25 lb	KA30-3_25lb	NSL-25-1	-1.8181902 g	1.1 g	0.0353136 g	R
WM-OPI-D3	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.6368098 g	1.1 g	0.0353136 g	A

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