

What calibration changes has
FGIS made for this year's
harvest?



Annual Calibration Review

- GIPSA reviews 15 NTEP grains/commodities plus selected other grains/commodities annually
- Any calibration changes posted on GIPSA website
- Calibration performance for all official calibrations posted on GIPSA website
- GIPSA information posted prior to May 1 and August 1
- 15 NTEP moisture comparisons posted on NCWM website in August

2015 Crop Moisture Calibration Review

- Annual Program Notice
- 15 NTEP Grains
- Canola
- Rapeseed
- Popcorn
- Sunflower Seed, Confectionary
- Short Grain Rough Rice

2015 Moisture Calibration Changes

www.gipsa.usda.gov/fgis/equipment.aspx

- Change for May 1
 - Oats
- Changes for August 1
 - Canola
 - Rapeseed
 - Popcorn

Official moisture calibration changes effective May 1 and August 1, 2015

- This list only includes those changes that affect moisture results.
- DICKEY-john GAC 2500-UGMA
 - Oats (May 1)
 - Canola and Rapeseed (August 1)
 - Popcorn (August 1)
- Perten AM 5200-A
 - Oats (May 1)
 - Canola and Rapeseed (August 1)
 - Popcorn (August 1)



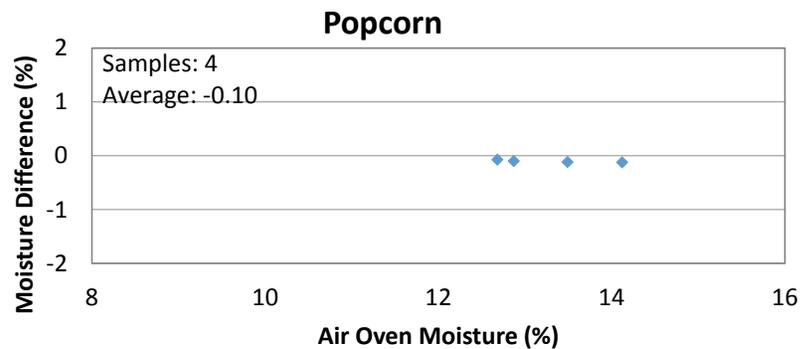
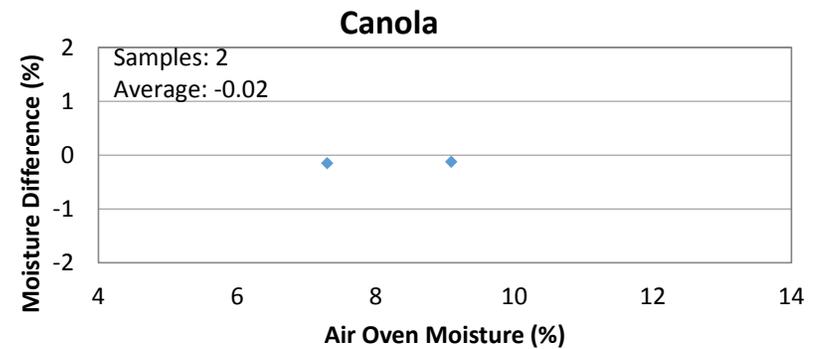
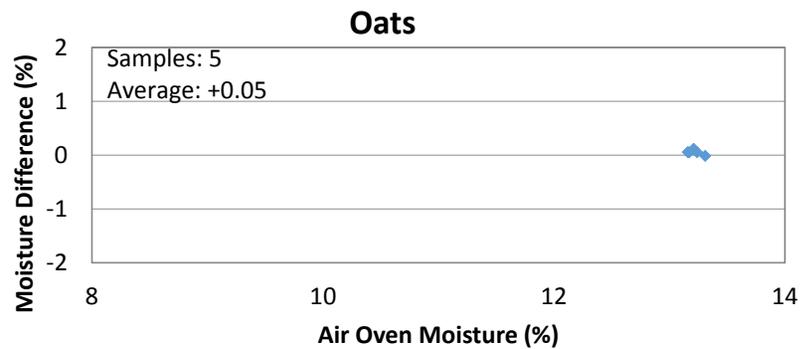
Small changes in “loading factors” were made to optimize agreement between UGMA-Compatible units and the UGMA Master system.

Refer to UGMA Performance 2015.pdf for the performance of the UGMA Master system to the Air Oven reference method for all grain groups prior to the 2015 harvest.

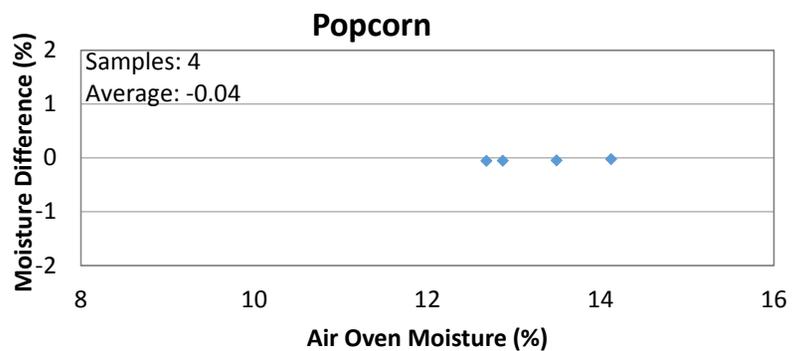
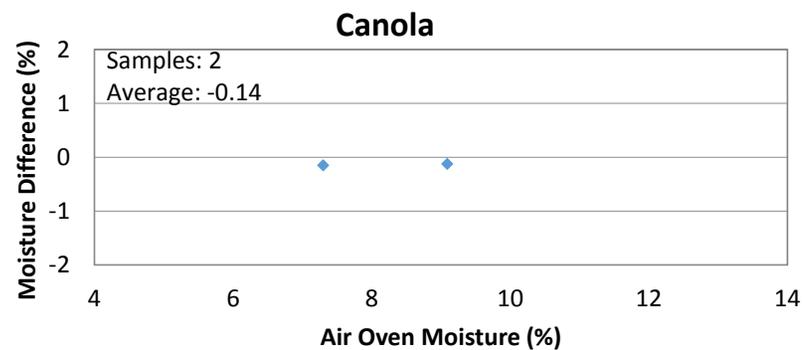
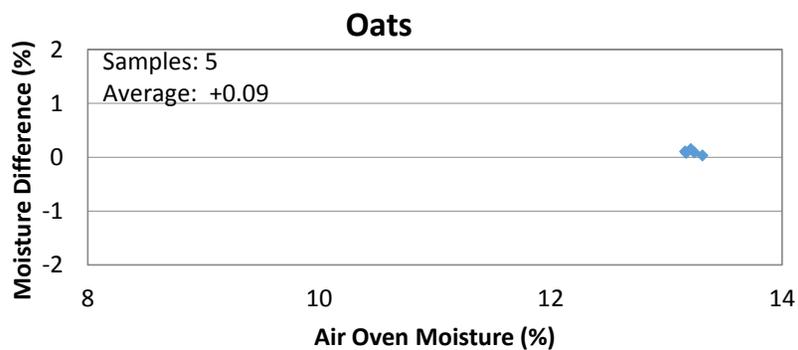
For grain groups with calibration updates, the following pages show the moisture changes resulting from applying the new loading factors to the 2014 crop data.



Effects of GAC 2500-UGMA Calibration Changes (New minus Old)



Effects of AM 5200-A Calibration Changes (New minus Old)



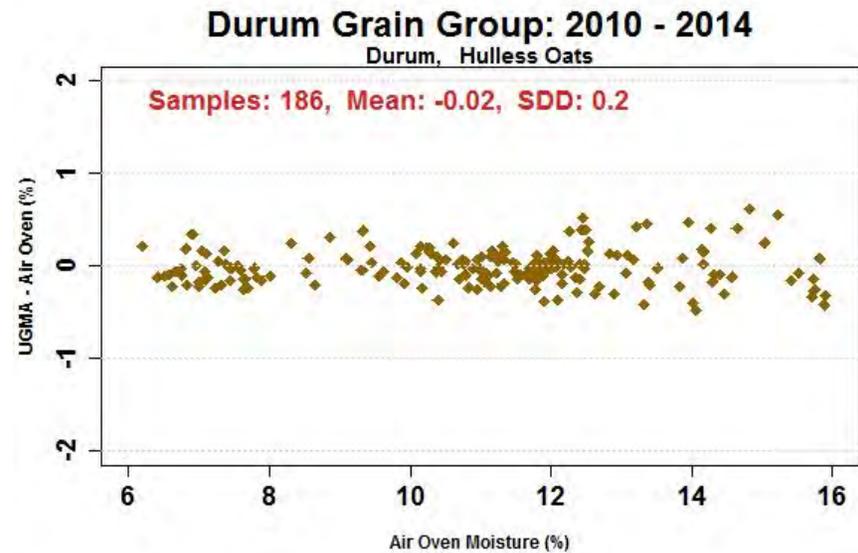
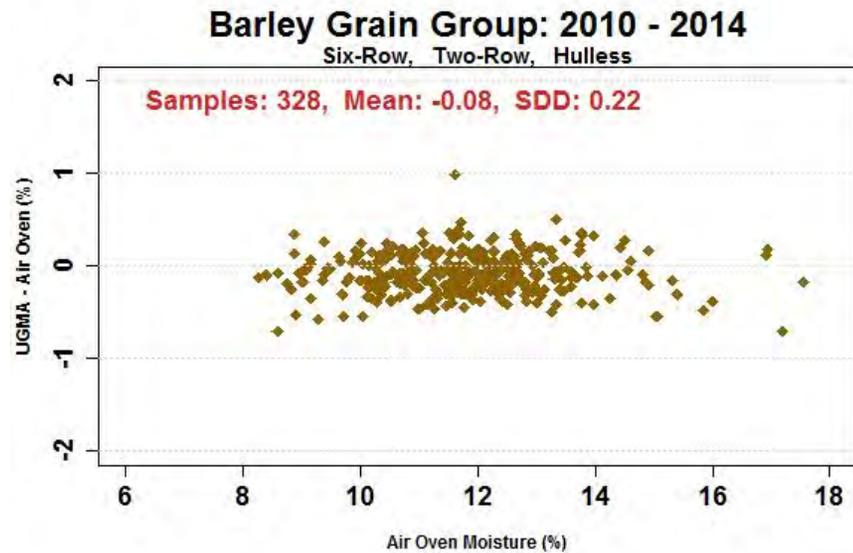
UGMA Moisture Meter Performance

The following plots show the performance for instruments based on GIPSA's Unified Grain Moisture Algorithm (UGMA). The data were collected on the GIPSA's UGMA Master System for the crops listed on each plot. The differences are instrument moisture results minus USDA-GIPSA air oven moisture results.

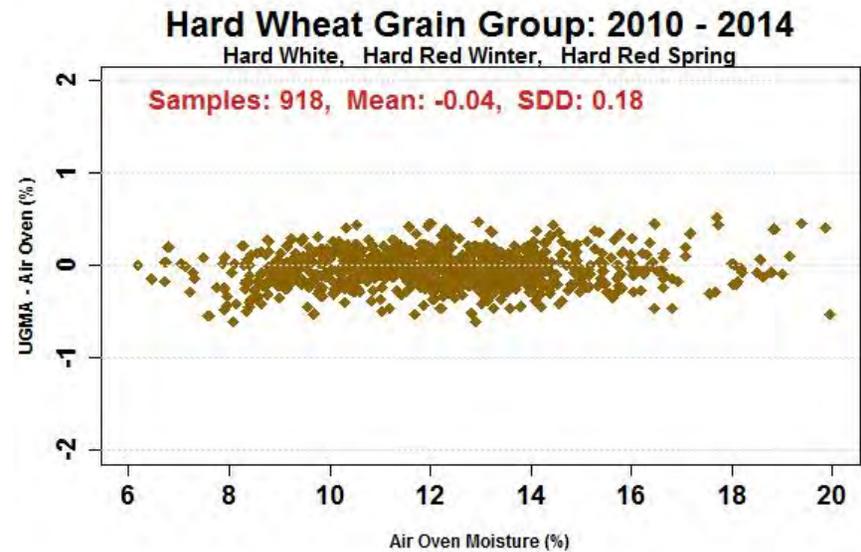
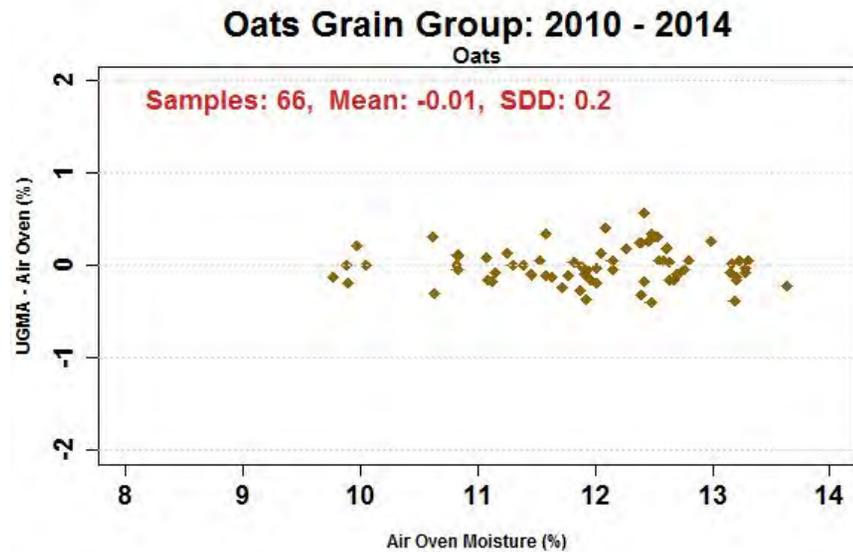
The plots show data for the spring/summer harvest grain group. The specific grain types included in each grain group are listed below the grain group title of each plot. The "mean" value is the average difference between the UGMA results and the air oven results for all samples on the plot. The Standard Deviation of Differences (SDD) value is a measure of the variability of differences between the UGMA results and the air oven results. Approximately two thirds of UGMA results were within +/- the listed SDD value for that grain group.

The y-axis range for all plots is +/- 2 % moisture difference, and the x-axis is the % moisture (air oven value).

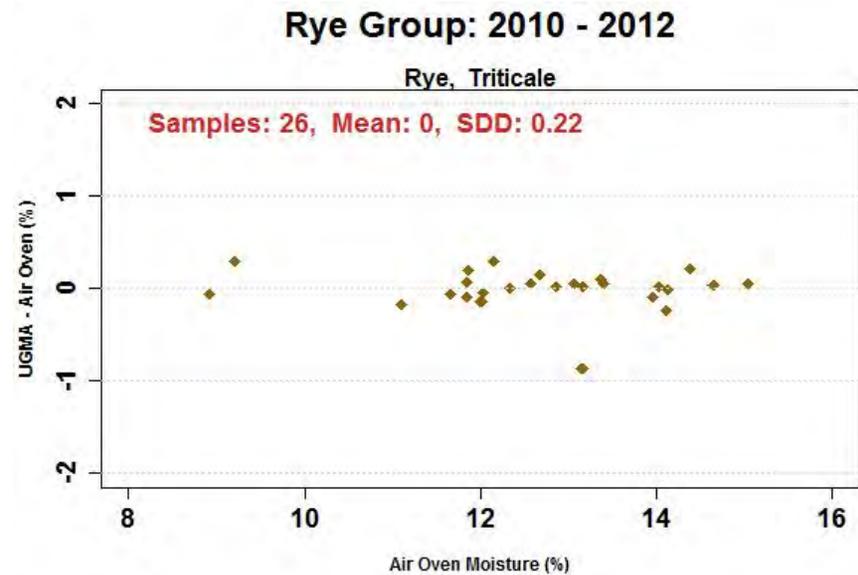
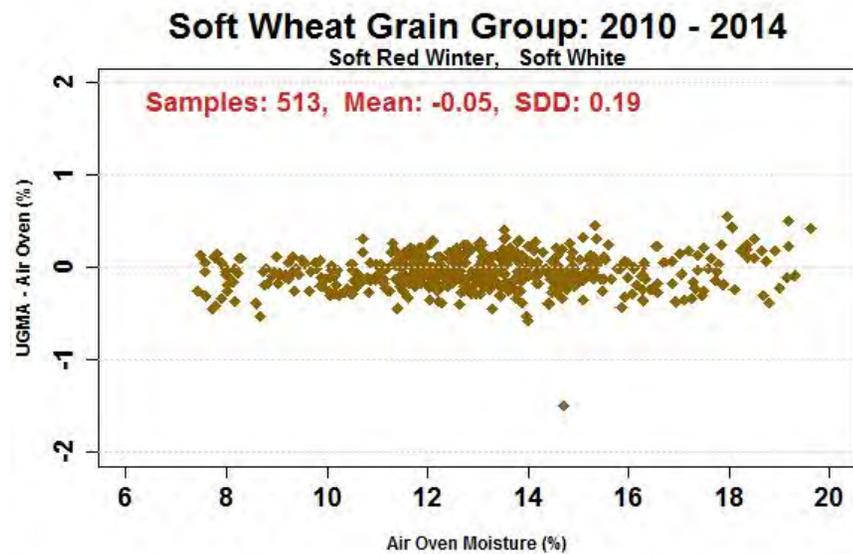
UGMA Performance for Spring/Summer Crops



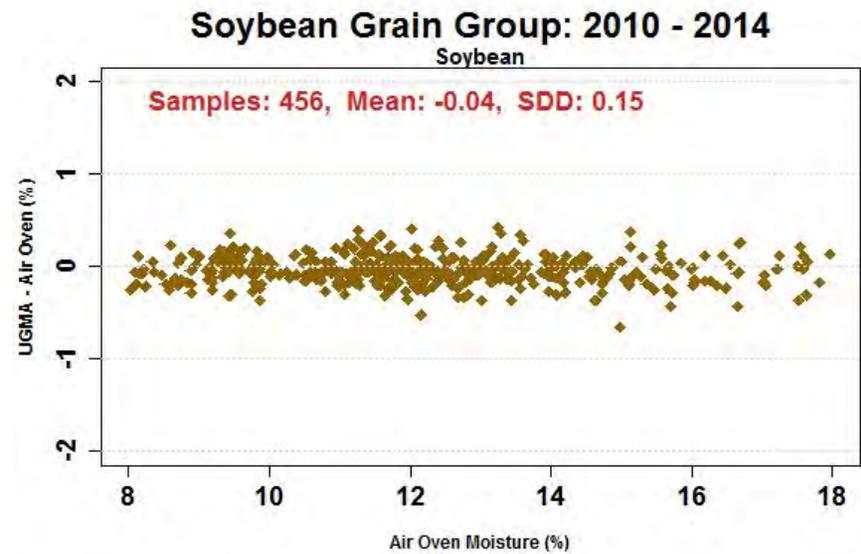
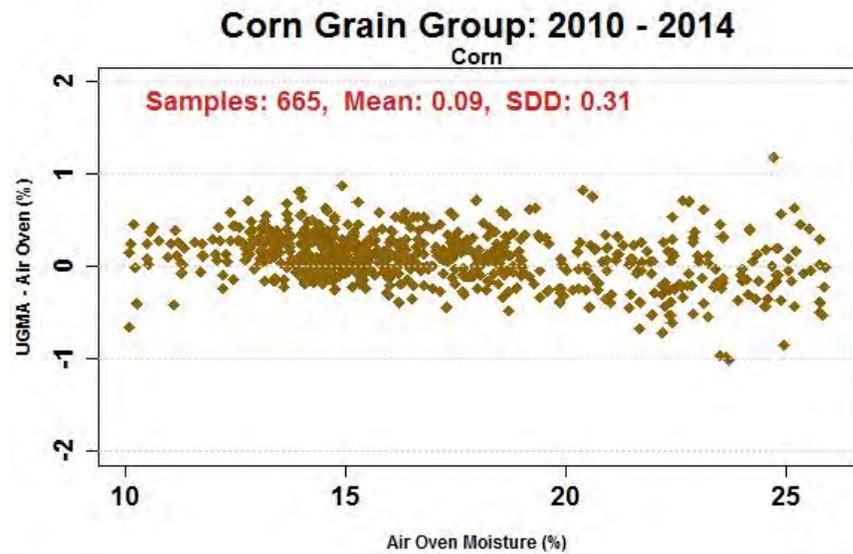
UGMA Performance for Spring/Summer Crops



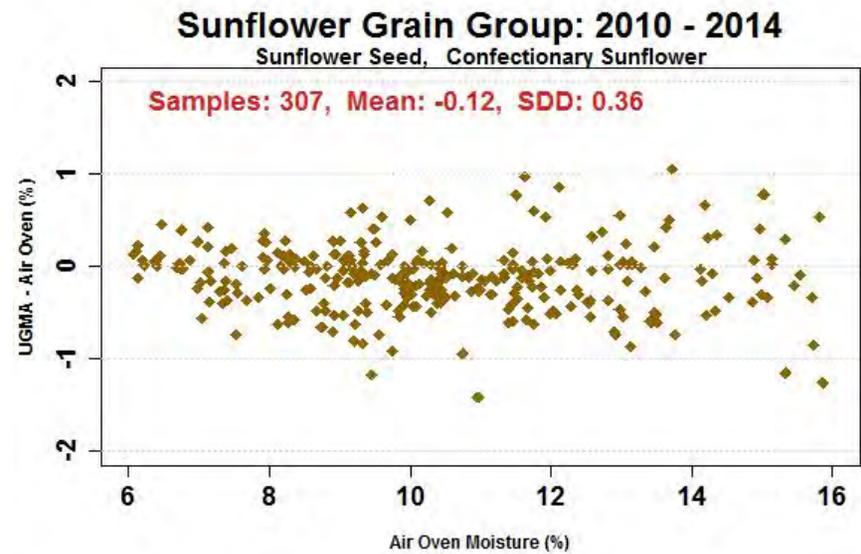
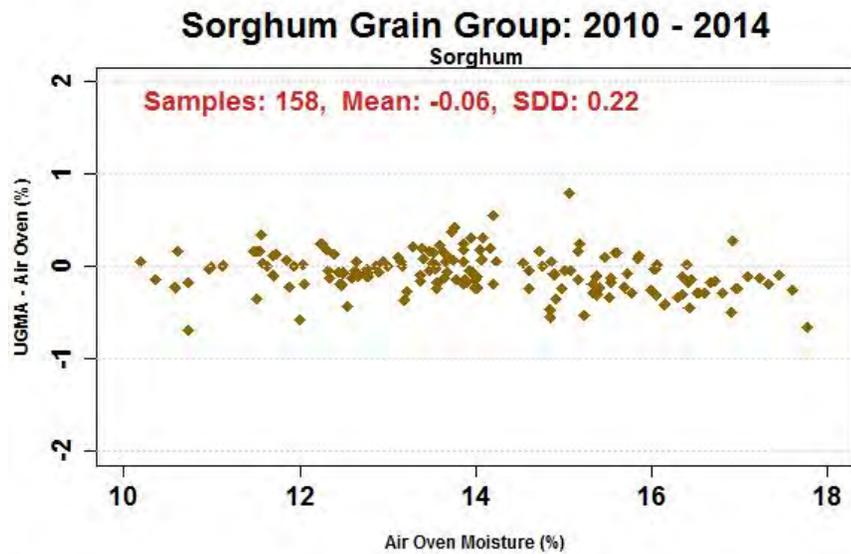
UGMA Performance for Spring/Summer Crops



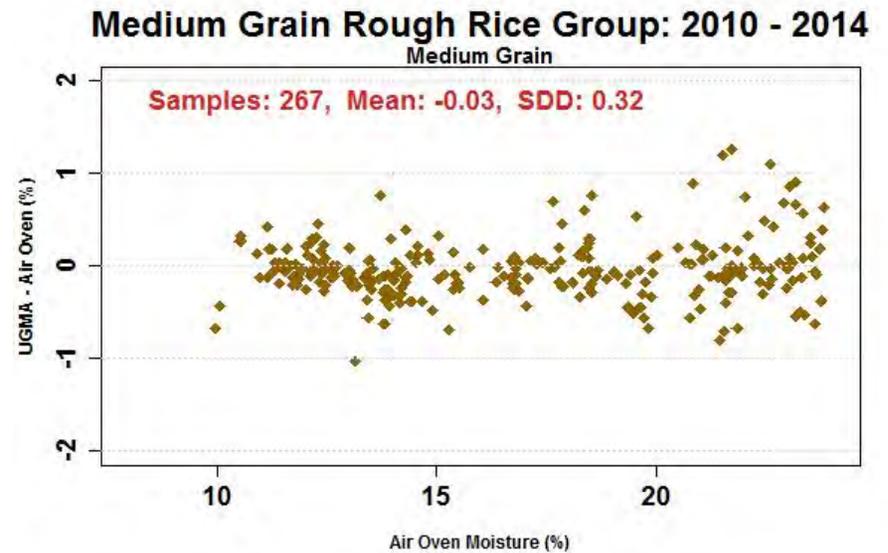
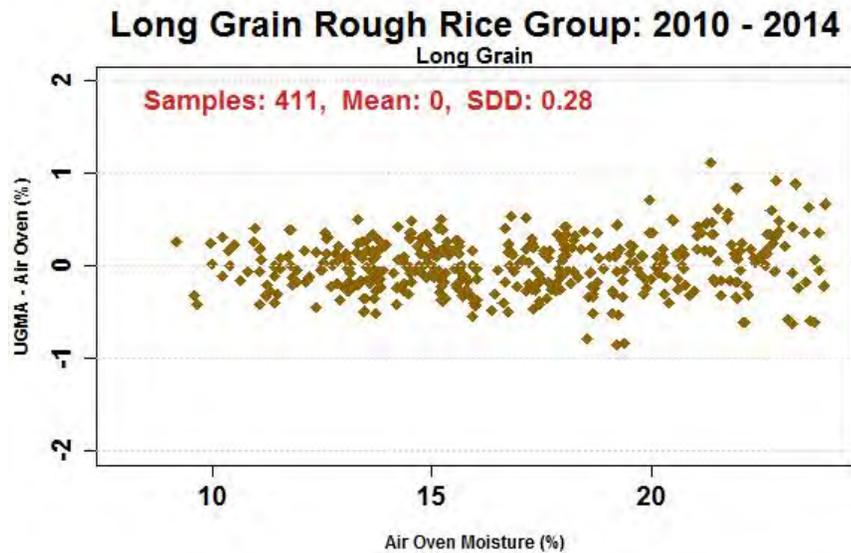
UGMA Performance for Fall Crops



UGMA Performance for Fall Crops

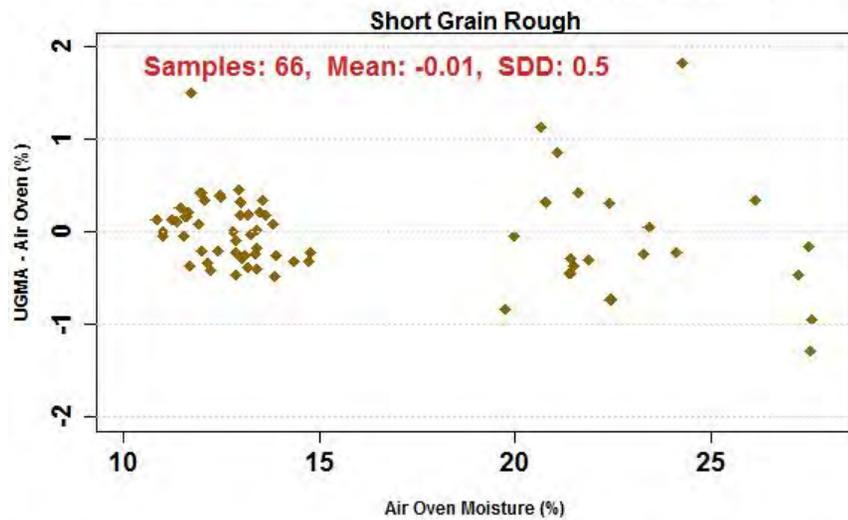


UGMA Performance for Fall Crops

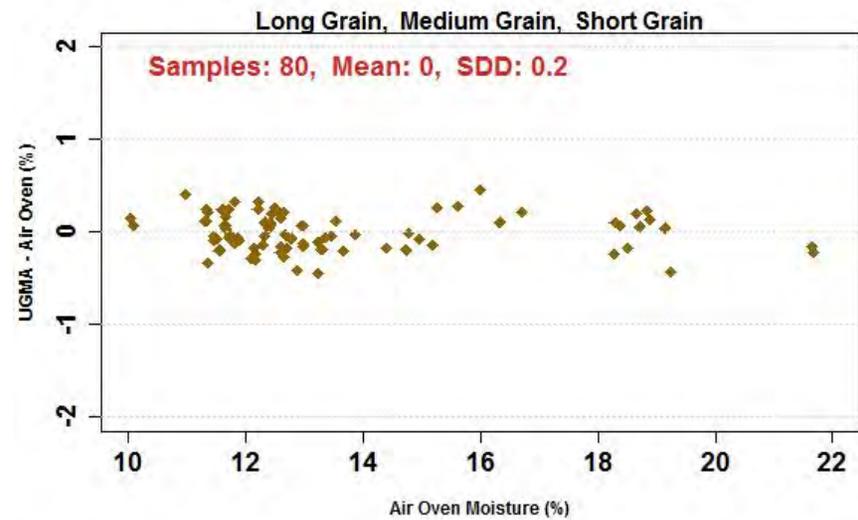


UGMA Performance for Fall Crops

Short Grain Rough Rice Group: 2009 - 2014

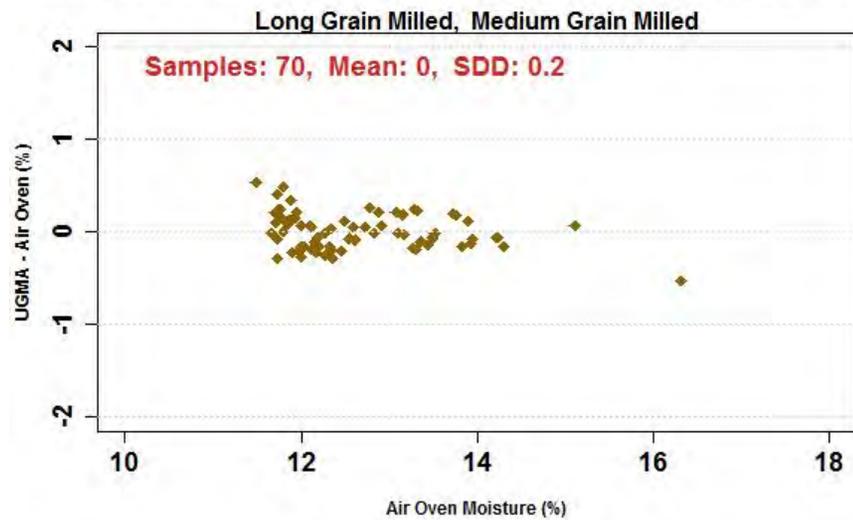


Brown Rice Group: 2009 - 2012

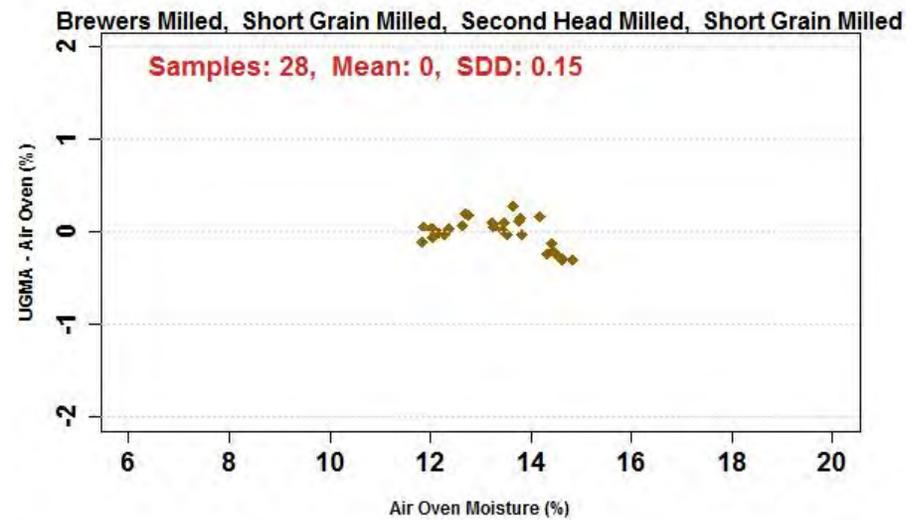


UGMA Performance for Fall Crops

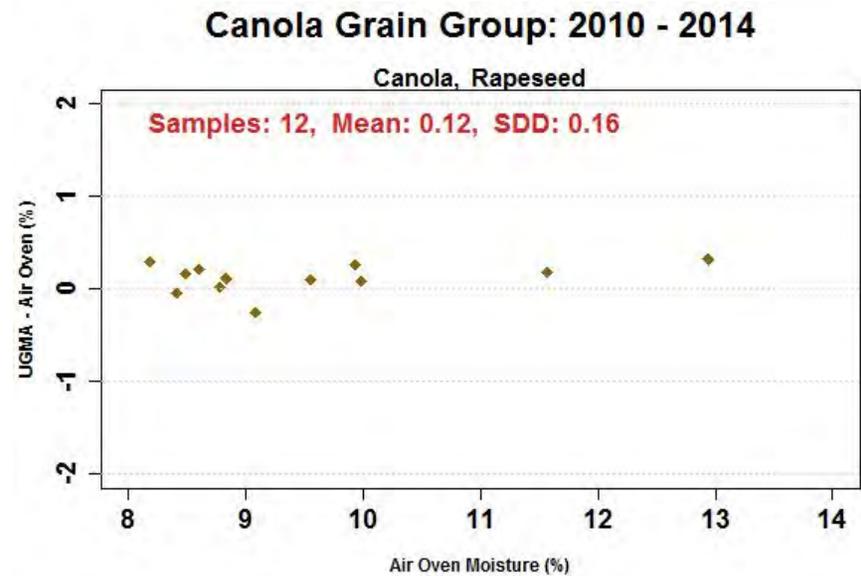
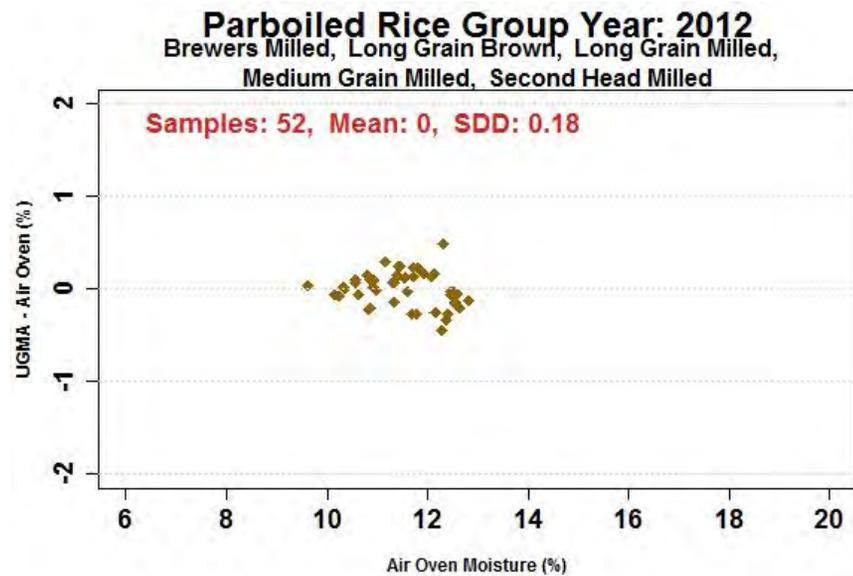
Long & Medium Grain Milled Rice Group: 2009 - 2011



Short Grain Milled Rice Group Year: 2012



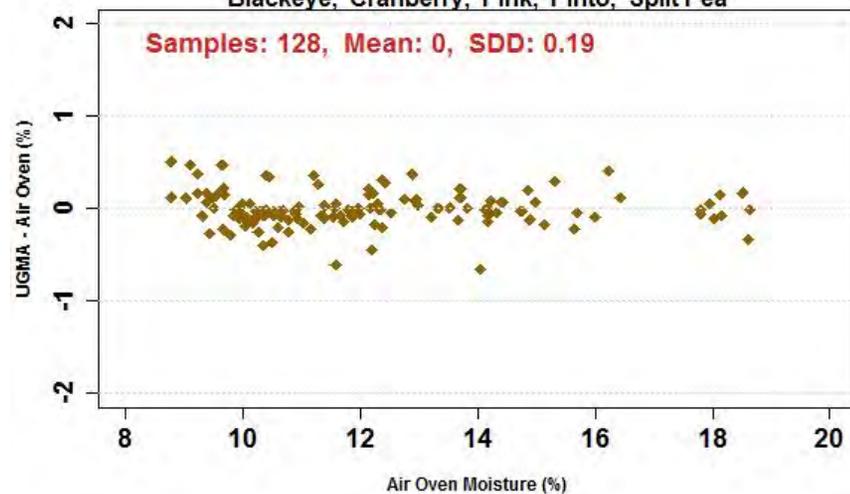
UGMA Performance for Fall Crops



UGMA Performance for Fall Crops

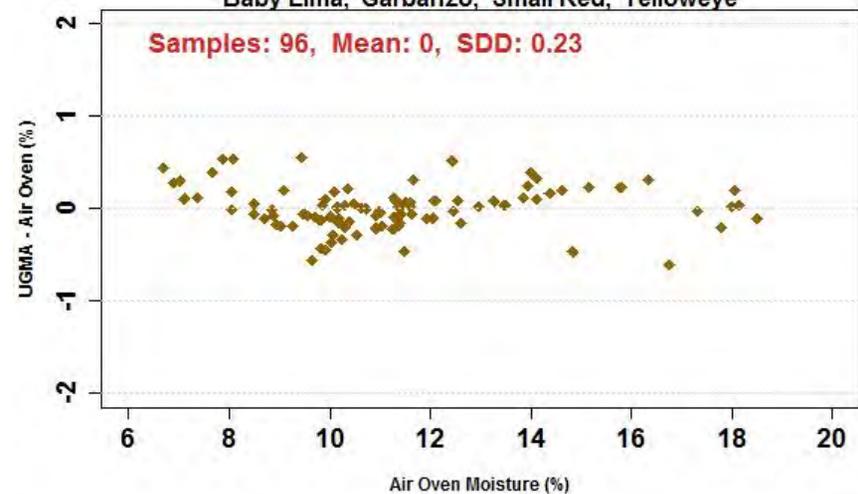
Bean 1 Grain Group: 2009 - 2014

Blackeye, Cranberry, Pink, Pinto, Split Pea

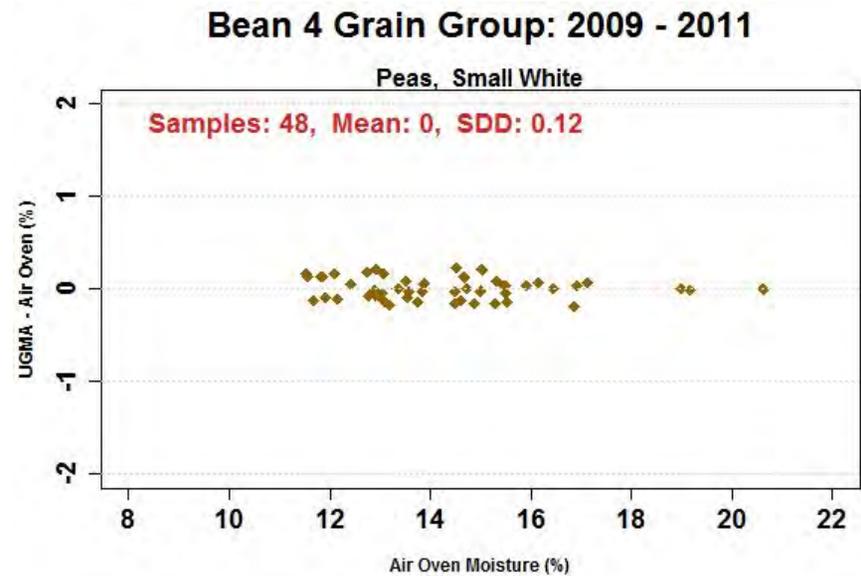
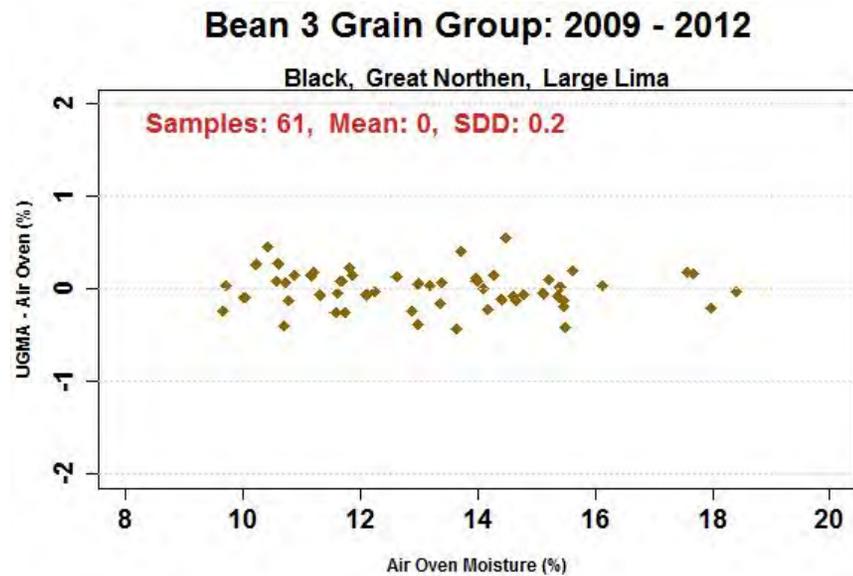


Bean 2 Grain Group: 2009 - 2011

Baby Lima, Garbanzo, Small Red, Yelloweye

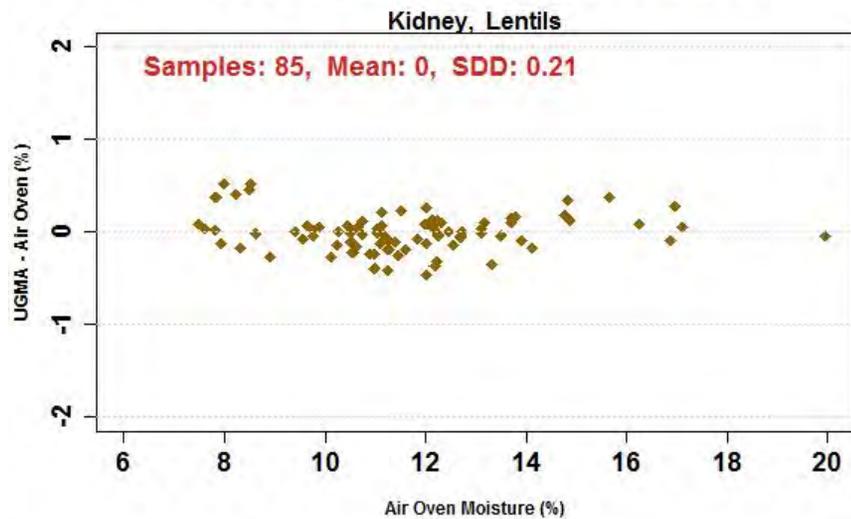


UGMA Performance for Fall Crops

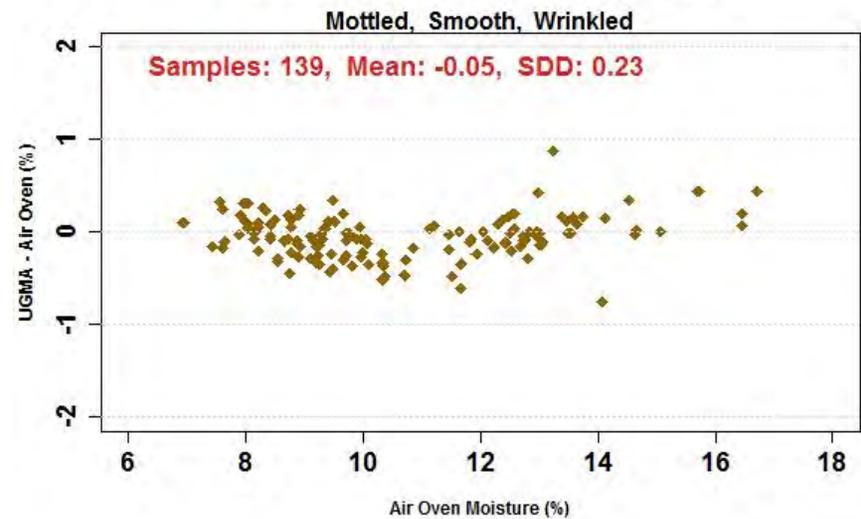


UGMA Performance for Fall Crops

Bean 5 Grain Group: 2009 - 2011

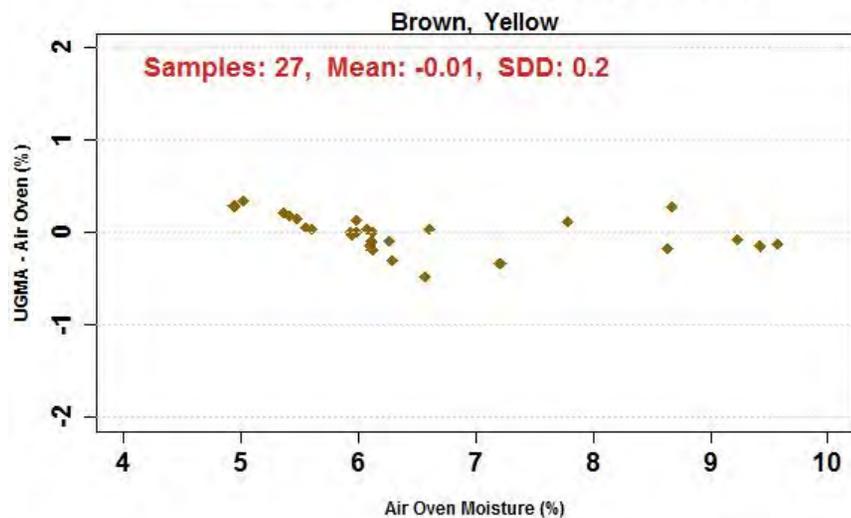


Peas Grain Group: 2009 - 2014

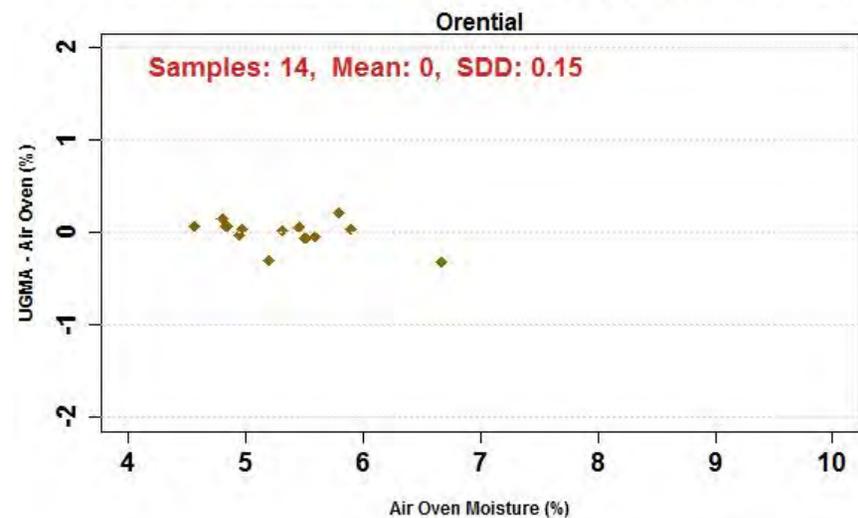


UGMA Performance for Fall Crops

Mustard Grain Group: 2009 - 2014

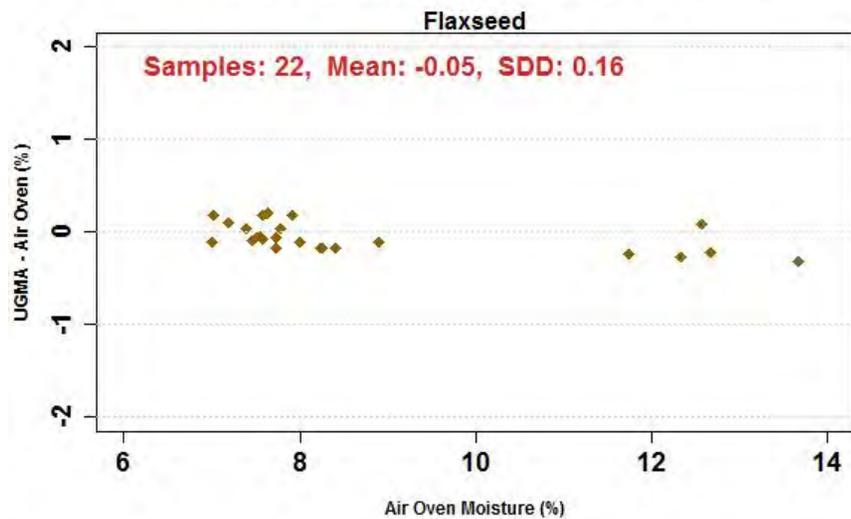


Oriental Mustard Grain Group: 2008 - 2012

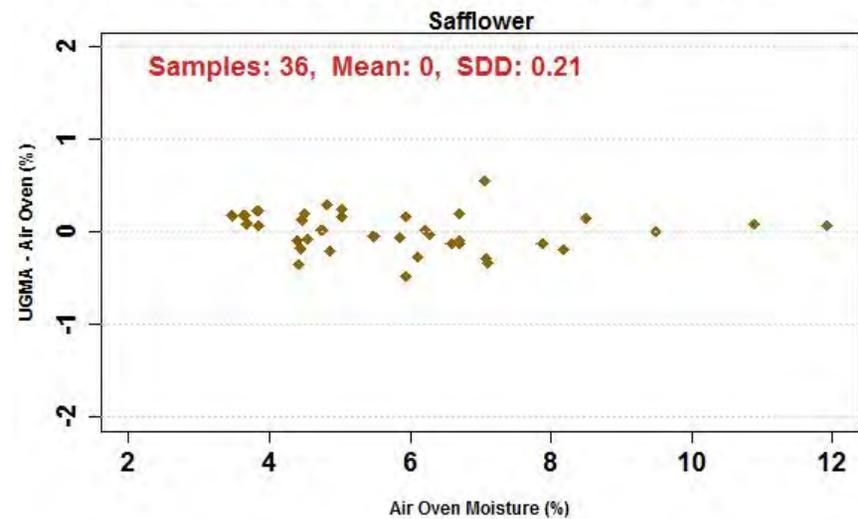


UGMA Performance for Fall Crops

Flaxseed Grain Group: 2010 - 2012

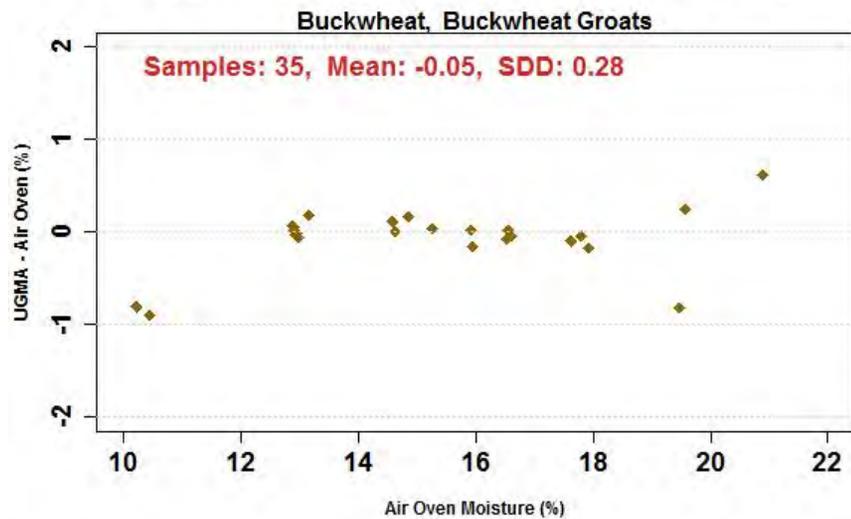


Safflower Grain Group: 2008 - 2011

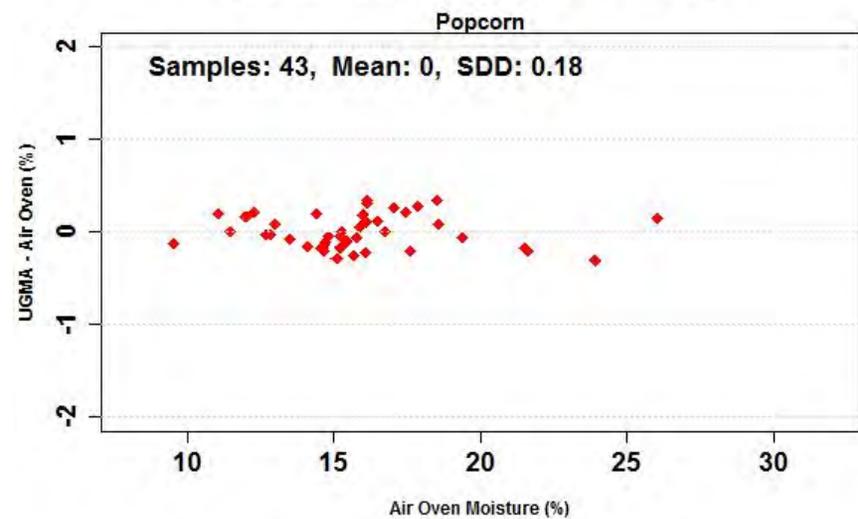


UGMA Performance for Fall Crops

Buck Wheat Grain Group: 2012 - 2013



Popcorn Grain Group: 2012 - 2014



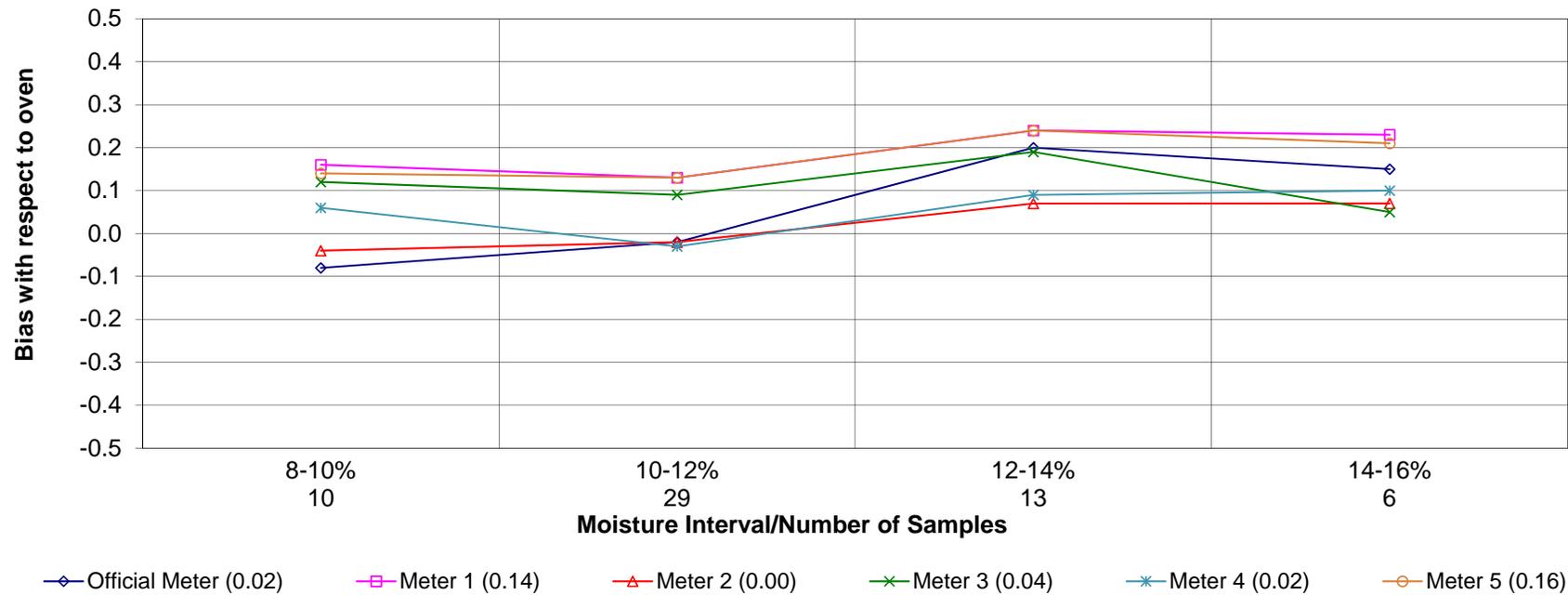
NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Durum

2012 - 2014 Crop Years



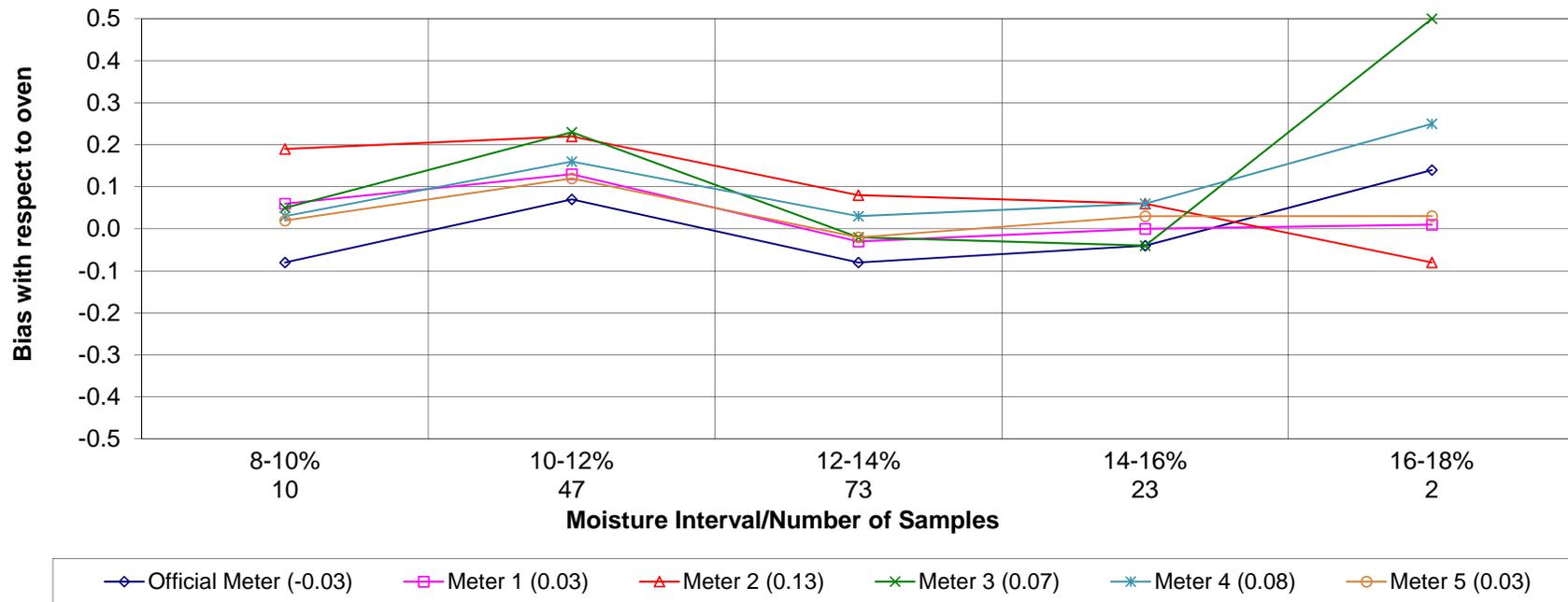
United States Department of Agriculture

NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Hard Red Spring Wheat 2012 - 2014 Crop Years



United States Department of Agriculture

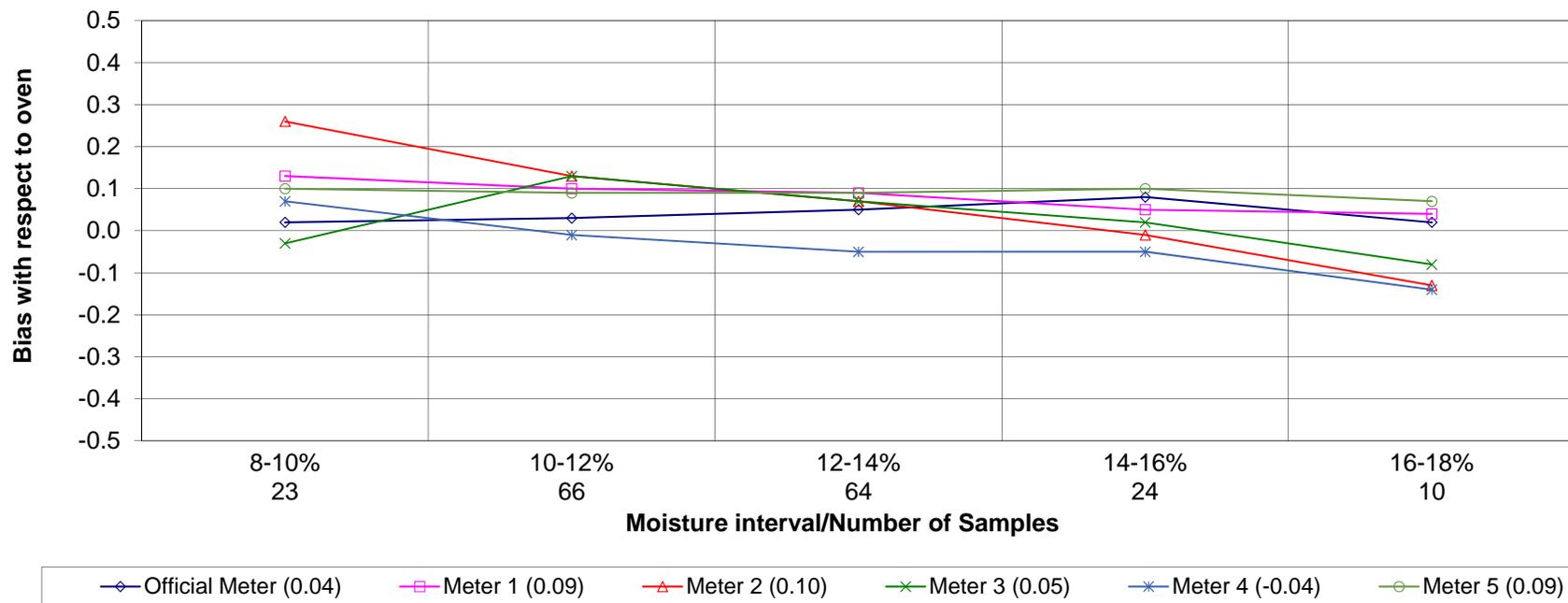
NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Hard Red Winter Wheat

2012 - 2014 Crop Years



United States Department of Agriculture

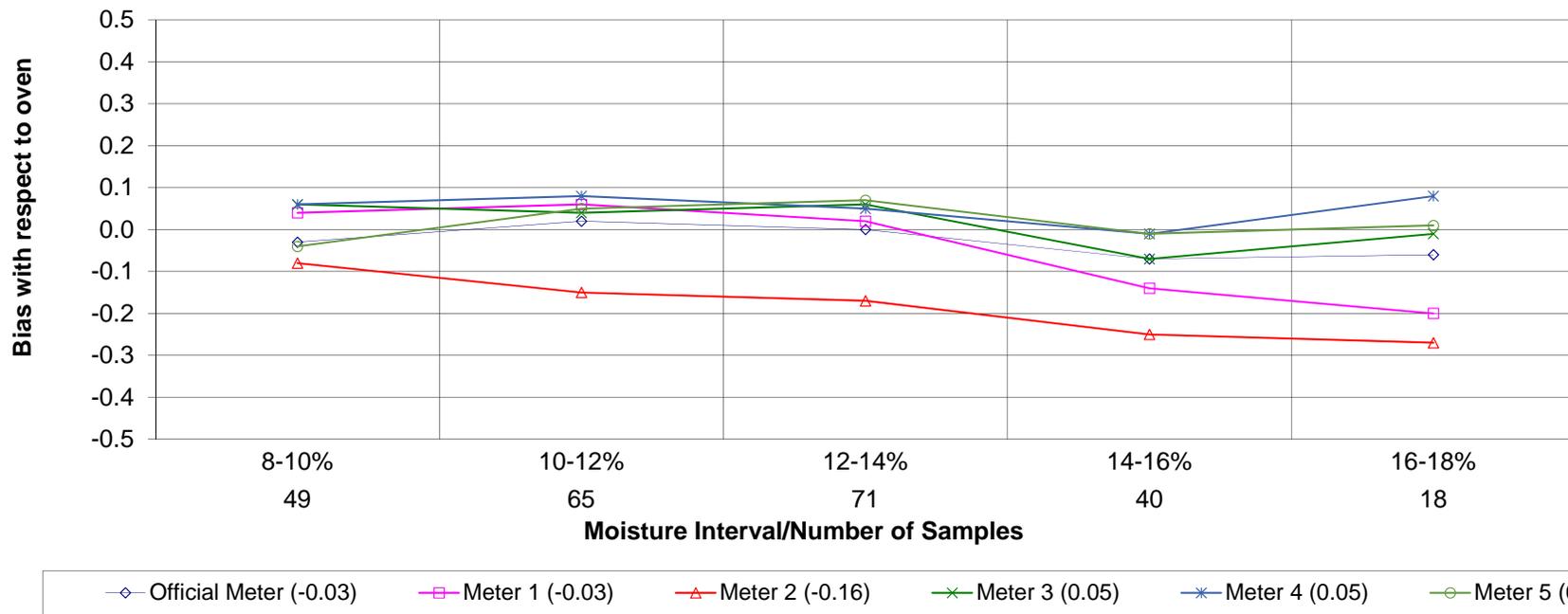
NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Soybeans

2012 - 2014 Crop Years



United States Department of Agriculture

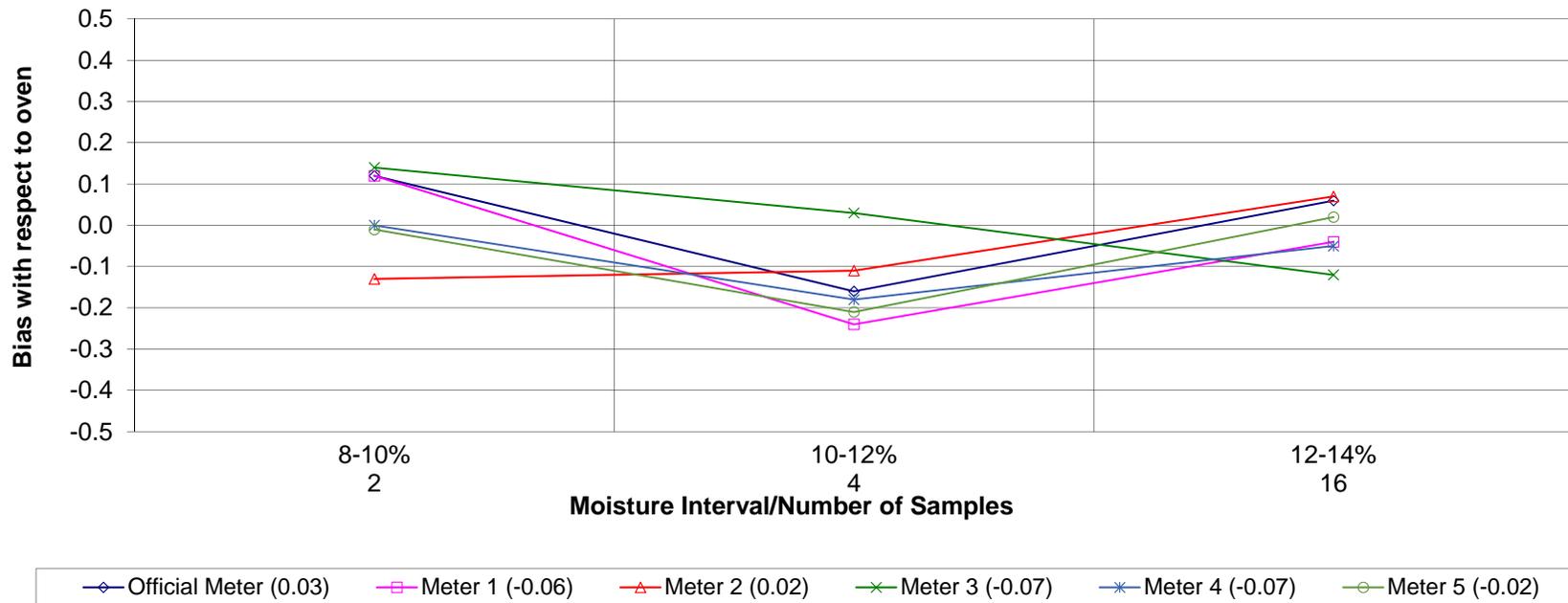
NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Oats

2012 - 2014 Crop Years



United States Department of Agriculture

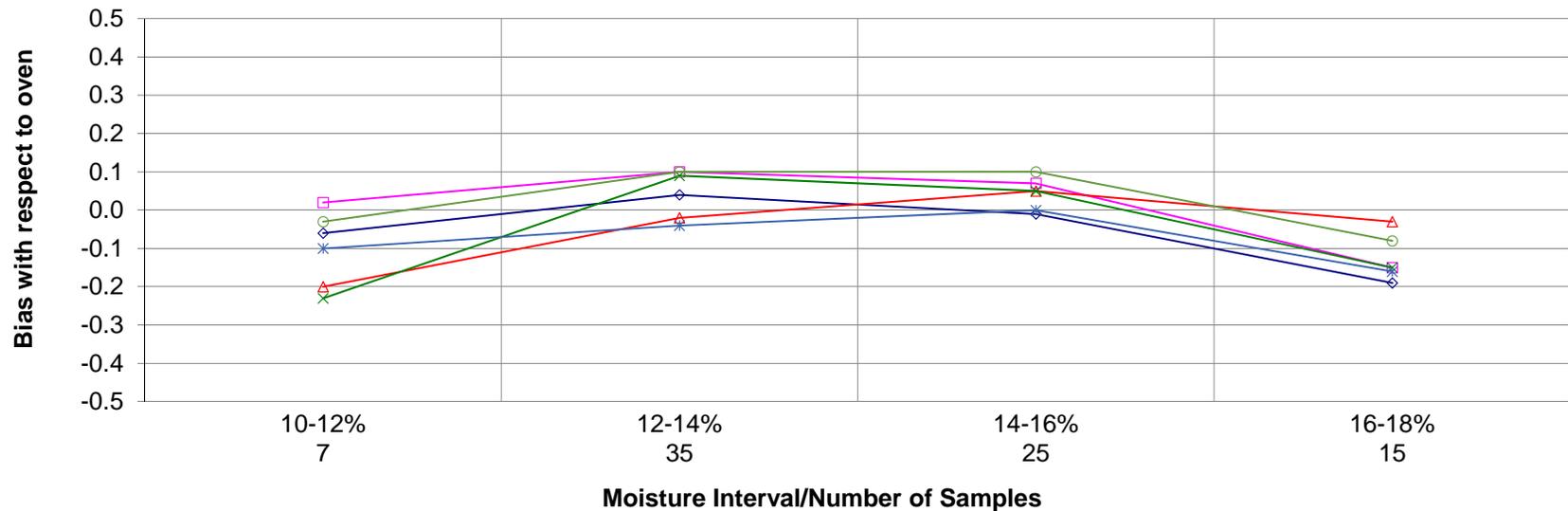
NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Grain Sorghum

2012 - 2014 Crop Years



Official Meter (-0.04) Meter 1 (0.03) Meter 2 (-0.04) Meter 3 (0.01) Meter 4 (-0.05) Meter 5 (0.05)



United States Department of Agriculture

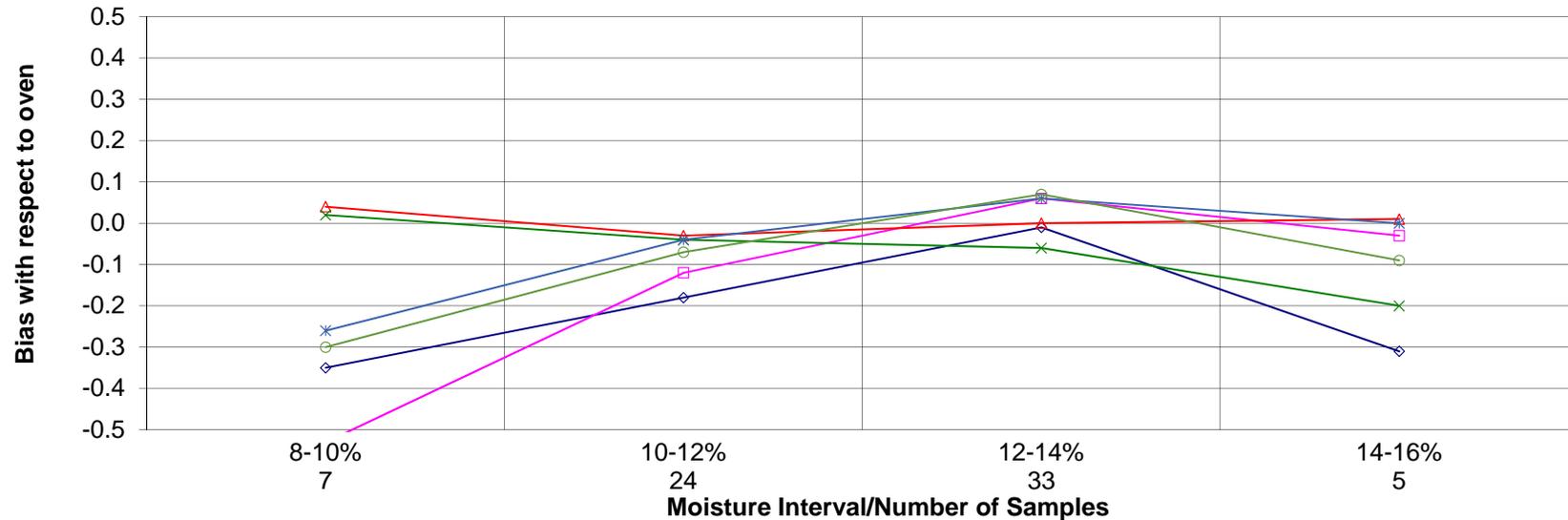
NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Six Row Barley

2012 - 2014 Crop Years



Official Meter (-0.13) Meter 1 (-0.07) Meter 2 (0.00) Meter 3 (-0.07) Meter 4 (-0.01) Meter 5 (-0.03)



United States Department of Agriculture

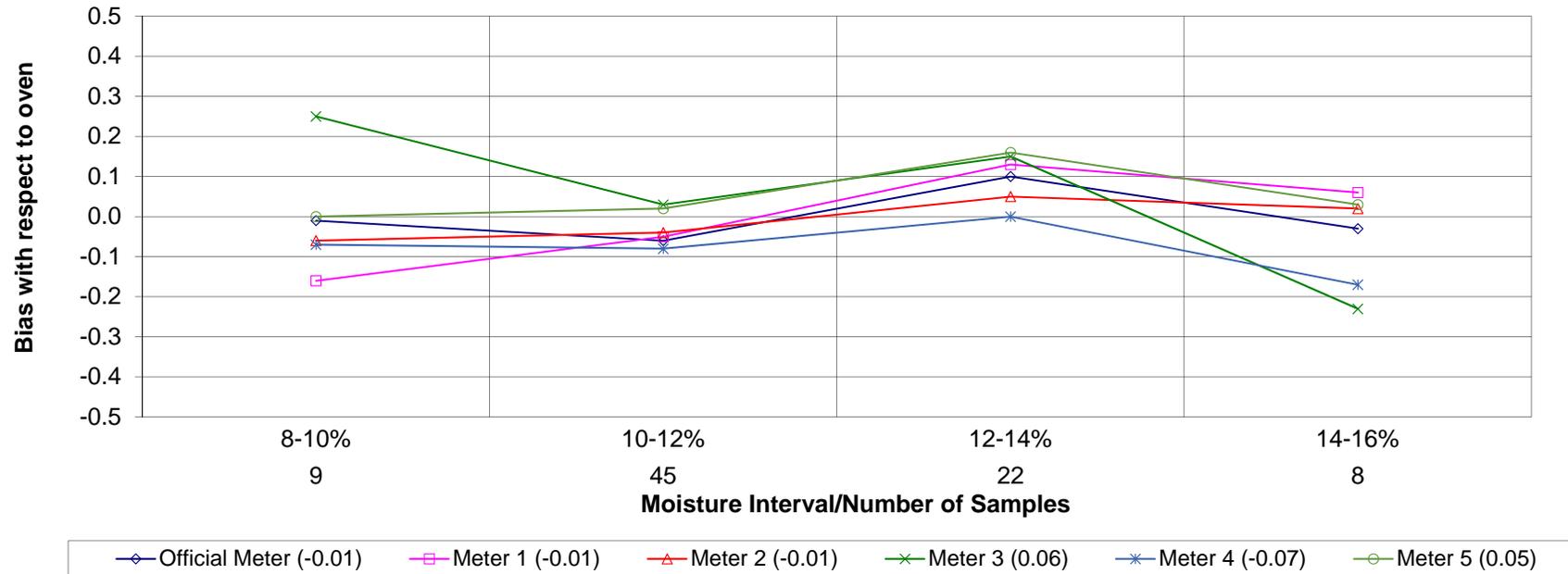
NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Two Row Barley

2012 - 2014 Crop Years



United States Department of Agriculture

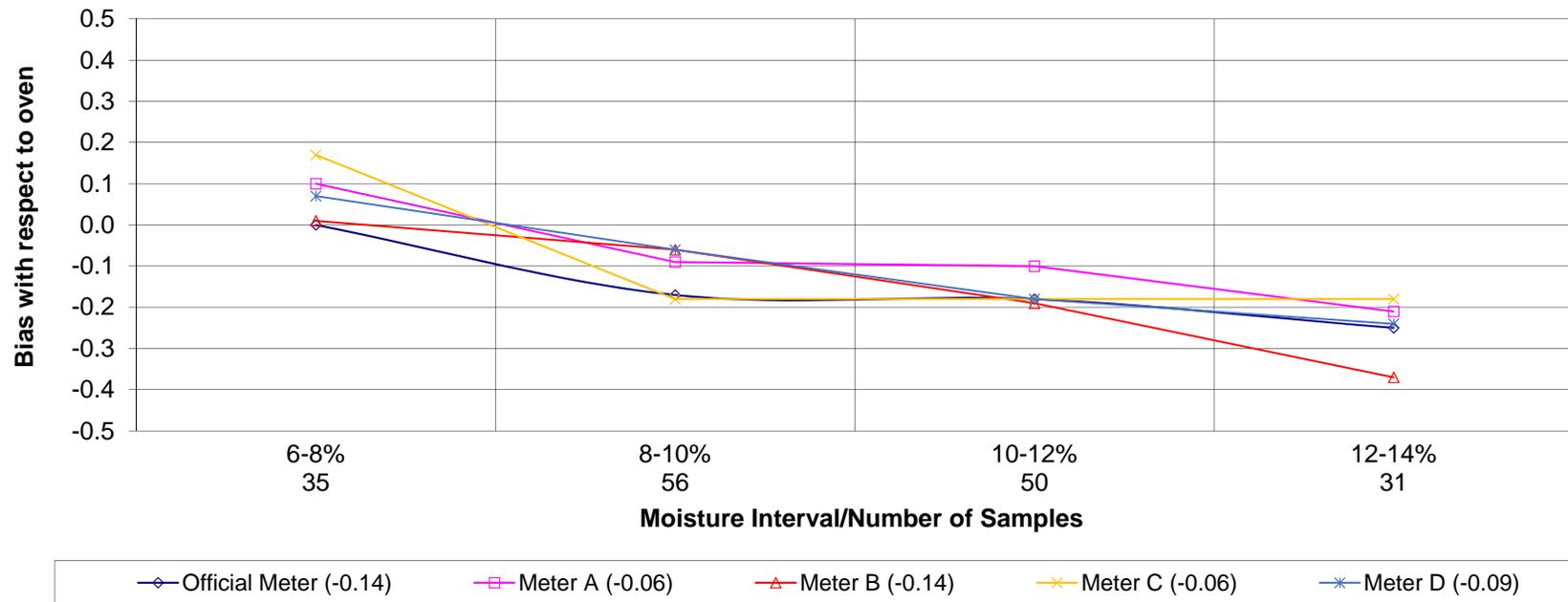
NTEP Phase II Grain Moisture Comparisons

National Conference on Weights and Measures

www.ncwm.net

Moisture Meter Comparison - Sunflower Seed

2012 - 2014 Crop Years



United States Department of Agriculture

