

USDA INSTRUMENT GRADING PROGRAM

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United States Department of Agriculture
Office of Inspector General

FSIS' and AMS' Field-Level Workforce Challenges



Audit Report 50601-0002-31
July 2013

- USDA appreciates the effort and diligence of the AMSA Grading Standards Committee
- USDA agrees with the recommendations
- All related USDA procedures are being updated to conform to the recommendations
- USDA looks forward to future endeavors with the committee



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Recommendation 19

Develop a plan to monitor and report variations in plant grading cameras to assure that any cameras that consistently grade high or low get proper maintenance by the company.



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Maintaining Consistency

Validation Cards

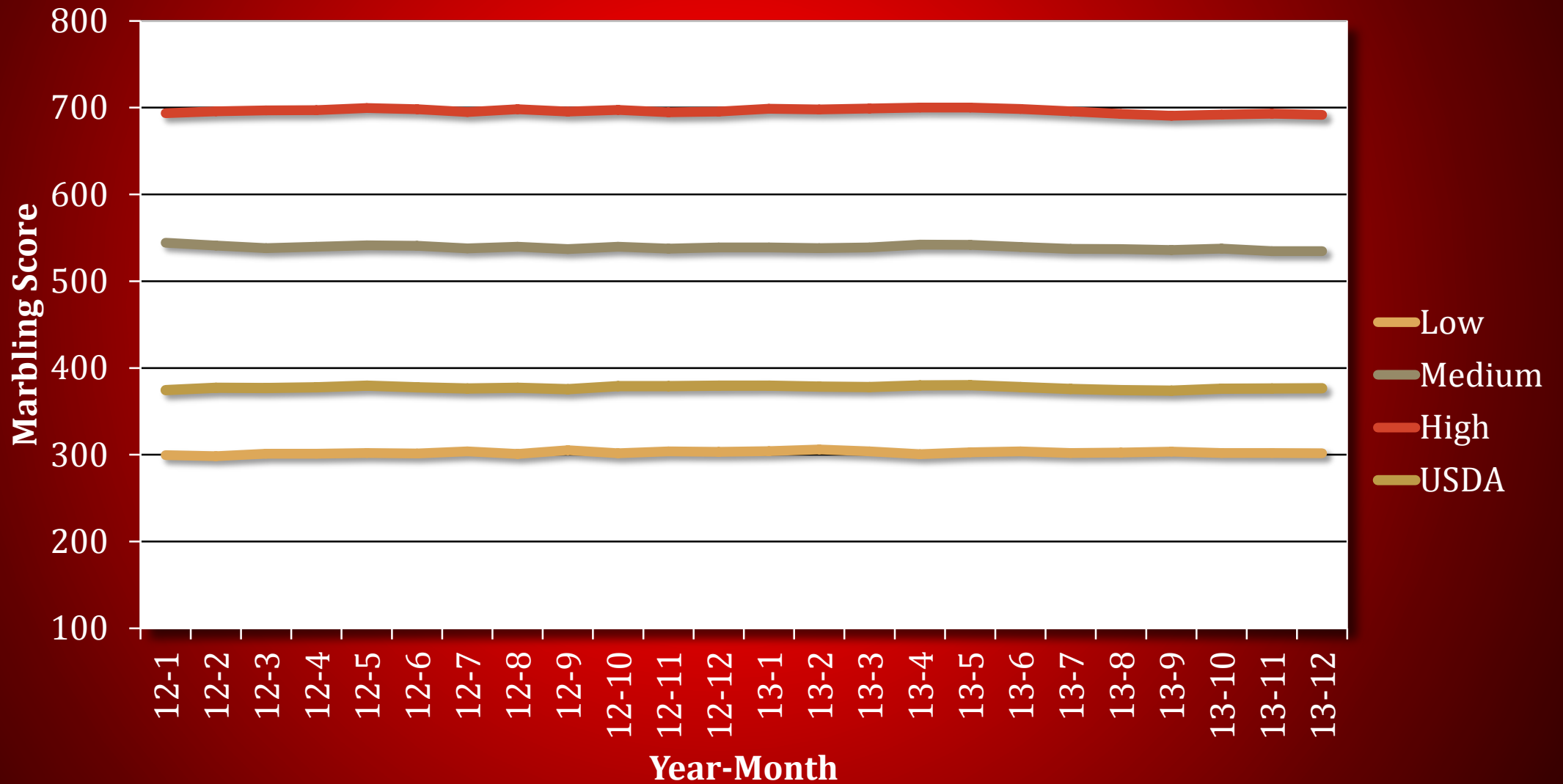
Card	Target	Tolerance	Low Limit	High Limit
Low	297	20	277	317
Medium	543	34	509	577
High	694	38	656	733
USDA	383	28	355	412

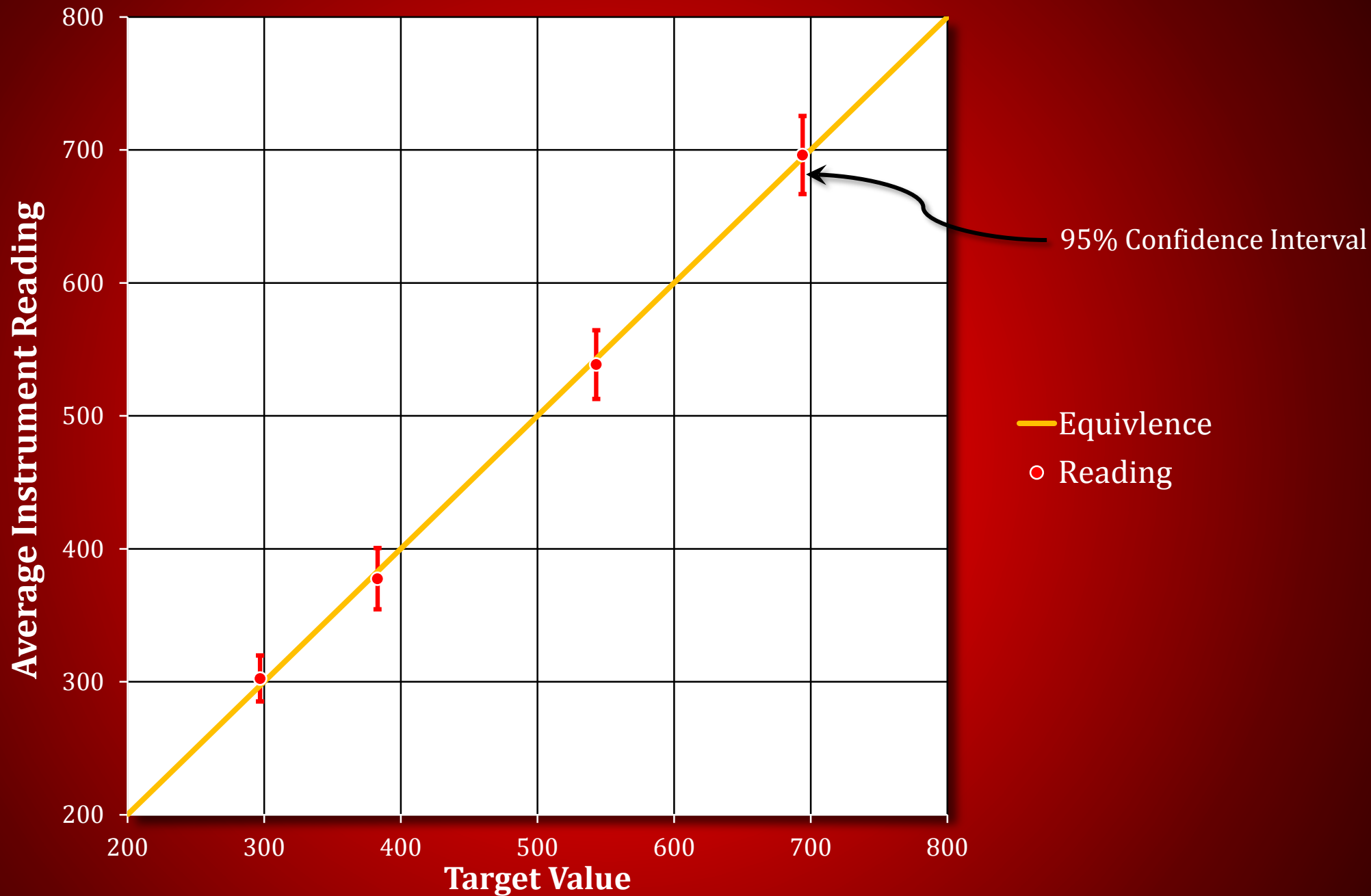
Maintaining Consistency

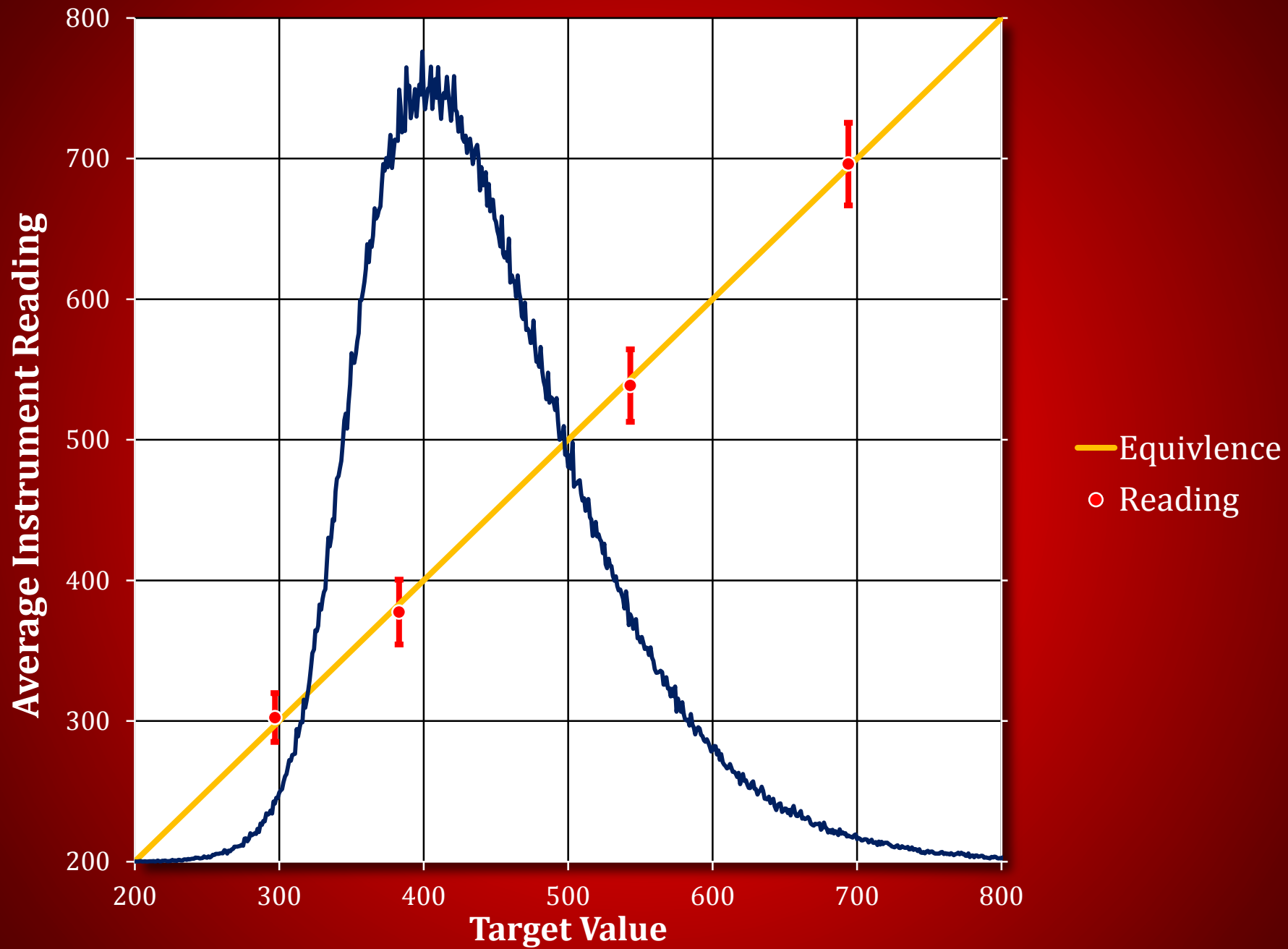
Validation Cards

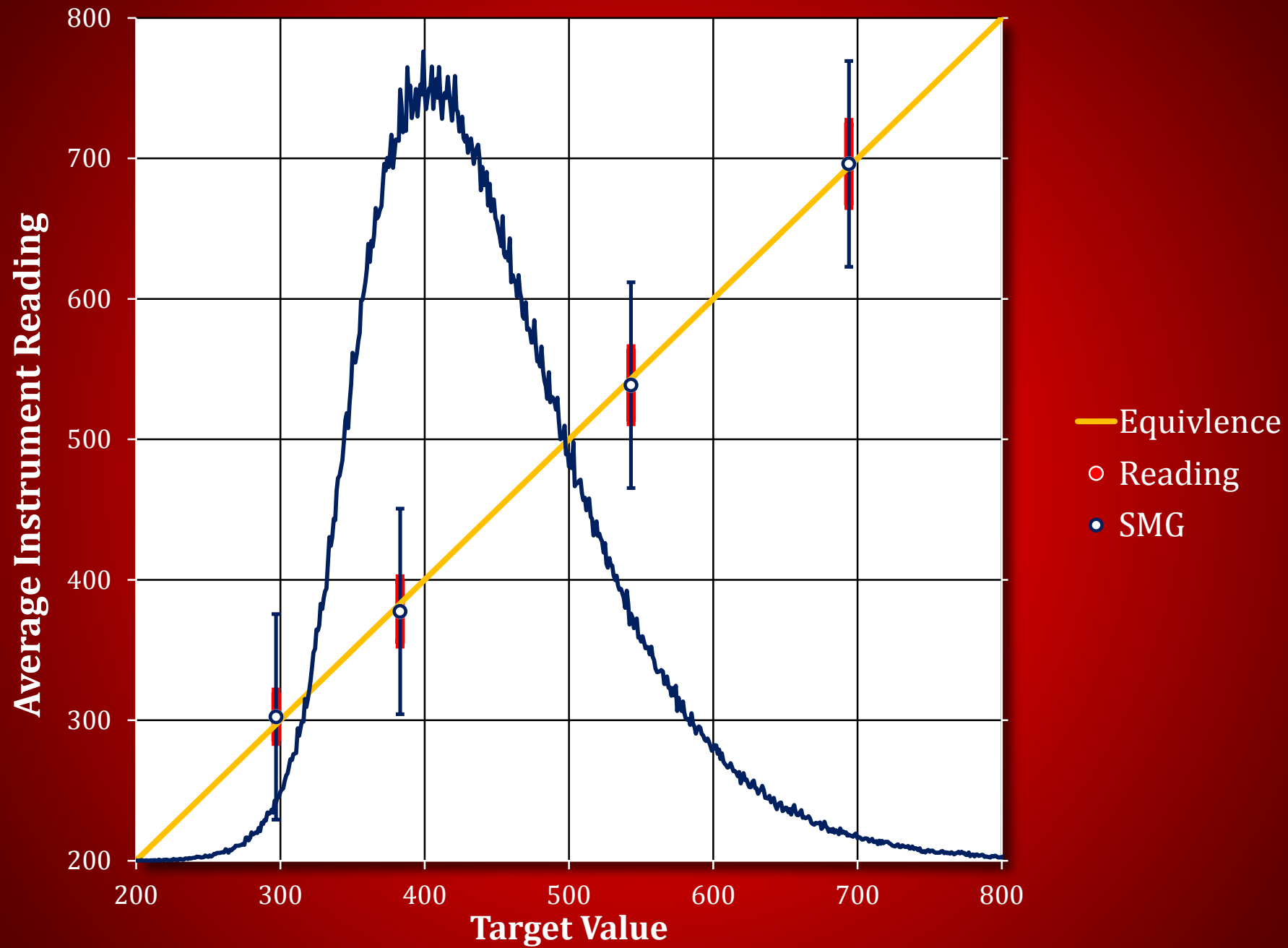
Card	Target	Tolerance	Low Limit	High Limit	Reading	Std. Dev.
Low	297	20	277	317	303	9
Medium	543	34	509	577	539	13
High	694	38	656	733	696	15
USDA	383	28	355	412	378	12

Validation Card Readings: History









Instrument Validation

Approach for Ensuring Consistency

- Strong potential for correlation between card readings
- Multivariate statistical process control
 - Hotelling's T^2
 - Too complex for “on the spot,” in-plant validation
 - Software expense
- Multi-stage approach
 - Stage 1: Daily at start of each shift
 - Low, medium and high card within tolerance (2 x SD)
 - Stage 2: Historical trend
 - 2 of the 3 cards within 1 x SD for at least 6 of the previous 10 validations

Requesting Comments concerning, but not limited to:

- Yield Grade
 - 50 Years Ago – 500 to 600 lb carcass weights
 - Ribeye area bias
 - Lawrence et al., 2008, Journal of Animal Science 86:1434
- Carcass Maturity
 - Physiological maturity vs chronological age
 - Gender bias
 - Lawrence et al., 2001, Journal of Animal Science 79:1683
 - Fed cattle under 30 mo
 - Equivalent tenderness and trained taste panel assessments between “A” and “B”
 - Acheson et al., 2014, Journal of Animal Science 92:1792
- AMSA review of the instrument-grading program

Federal Register - August 15, 2014 Vol. 79, No. 158, Page 48112

- Comments are due no later than November 13, 2014
- By Mail:
 - Beef Carcass Revisions
 - Standardization Branch
 - LPS Program, AMS, USDA,
 - 1400 Independence Ave., SW., STOP 0258
 - Washington, DC 20250
- By fax: (202) 690–2746
- By email: beefcarcassrevisions@ams.usda.gov

