

ADDENDUM A

Instrument Grading Systems for Beef Carcasses

Performance Requirements for Instrument Marbling Evaluation (PRIME)

I. Demonstration of Repeatability, Accuracy, and Precision

June 7, 2006

BACKGROUND

The Department of Agriculture (USDA), Agricultural Marketing Service (AMS), Livestock, Poultry and Seed (LPS) Program will utilize beef carcass marbling scores made by approved instruments to assist in determining the official quality grade of beef carcasses. To be approved by the LPS Program for such a purpose, the instrument must meet certain performance requirements for accuracy and precision in the prediction of the marbling score at the 12th-13th rib interface. Any significant change to an approved device or system that would potentially influence or practically affect at least one independent variable must be tested to ensure that the performance requirements for accuracy and precision under which the instrument was originally approved are met.

SCOPE

Approval will be granted in accordance with the following performance requirements to an instrument system that predicts marbling scores accurately and precisely using instruments and devices that utilize a validated prediction equation. The scope of an instrument's approval is determined by LPS Program and will be based on the intended use of the instrument system. The scope will be set forth in the final approval.

METHODOLOGY

A minimum of two modified devices shall be compared to a minimum of two originally approved devices. Each test carcass must be imaged by minimum of one modified device and one original device. The sample size for each device-to-device comparison must involve at least 1,000 imaged carcasses. For all comparisons, the total number of carcasses must exceed 4,000. The degree of marbling matrix shown in Table 1 will serve as the template in guiding carcass selection. Carcasses must be presented for image capture and analysis at a continuous normal operating chain speed.

Degree of Marbling	Number for Line-Speed Testing
Traces or less	100
Slight	800
Small	800
Modest	800
Moderate	800
Slightly Abundant or higher	700
Total	4,000

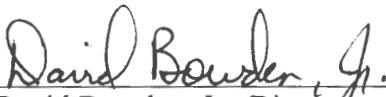
PERFORMANCE REQUIREMENTS

The performance requirements outlined in Phase II On-line measurement of accuracy and precision of the LPS Program document titled *Performance Requirements for Instrument Marbling Evaluation (PRIME), I. Demonstration of Repeatability, Accuracy, and Precision* (2006) must be met.

LPS Program may change the performance approval criteria when technology improves. This Addendum is subject to revision at any time by the LPS Program.

Requests for approval shall be submitted to:

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