



## Operational Requirements for the USDA Certification of ASTM International Tenderness Marketing Claims

### 1. BACKGROUND

The Department of Agriculture (USDA), Agricultural Marketing Service (AMS), Livestock and Poultry (LP) Program will certify carcasses and/or meat cuts for tenderness-marketing claims based on the applicable American Society for Testing and Materials (ASTM) International tenderness standard. The performance requirements outlined in this document were established after consultation with an industry-working group convened by the LP Program.

The Industry Working Group was comprised of representatives of USDA, industry associations, processing companies, producers, technology providers, and academia. From July 24, 2012 to August 31, 2012, USDA provided industry representatives the opportunity to provide comments to the Operational Requirements for the USDA Certification of ASTM International Tenderness Marketing Claims. Those comments were important for the development of the document and implementation of this program.

### 2. PURPOSE AND SCOPE

This document provides the requirements for USDA-certified program for tenderness based on an approved ASTM International tenderness standard. An individual or firm must have written procedures that ensure the requirements of a referenced ASTM International tenderness standard are being met.

Parties who meet these requirements will be eligible to market their product (e.g., product labeling, advertisements, and/or promotions) as being USDA-certified tender or very tender.

### 3. REFERENCE DOCUMENTS

- A. Code of Federal Regulations (CFR) 7 Part 54 - Meats, Prepared Meats, and Meat Products (Grading, Certification, and Standards).
- B. CFR 7 Part 62 - Livestock, Meat, and Other Agricultural Commodities (Quality Systems Verification Programs).
- C. Quality Assessment Division (QAD) 1003B: *Laboratory Proficiency Testing for Shear Force Measurements*.
- D. QAD 1000 Procedure: *Quality Systems Verification Programs General Policies and Procedures*.
- E. Research Guidelines for Cookery, Sensory Evaluation and Instrumental Tenderness Measurements of Fresh Meat. American Meat Science Association (AMSA), 1995.
- F. [USDA, Agricultural Research Service \(ARS\)](#): Slice Shear Force Protocol for Large Volume at Higher Cost.



- G. Standard Practice for Force Verification of Testing Machines. ASTM International Standard E4.
- H. Standard Practice for User Requirements for Livestock, Meat, and Poultry Evaluation Devices or Systems. ASTM International Standard F 2341.
- I. Standard Test Method for Livestock, Meat, and Poultry Evaluation Devices. ASTM International Standard F 2343.
- J. Standard Terminology for Livestock, Meat, and Poultry Evaluation Systems. ASTM International Standard F 2463
- K. QAD 1002 Procedure: *USDA Quality Systems Assessment (QSA) Program*.
- L. [USDA, ARS](#): Warner-Bratzler Shear Force Protocol.

#### 4. REQUIREMENTS

In addition to the required information as outlined in QAD 1000 Section 6, an individual or firm seeking USDA certification of a tenderness-marketing claim must provide documentation that describes how they will:

- A. Meet the requirements of an ASTM International tenderness standard;
- B. Describe the process with a documented quality management system as outlined in QAD 1002 Procedure, Section 7 that includes procedures, records, forms, flow charts, etc.; and,
- C. Demonstrate conformance with the Required Key Performance Elements below.

Interested parties must describe in their documented quality management system the appropriate meat cuts from individual carcasses, lots or a quality program that the USDA tenderness certification may apply.

The quality management system will be considered acceptable when it is statistically verified ( $P < 0.05$ ) to meet the specifications of the referenced ASTM International tenderness standard.

The LP Program may provide input to the approved quality management system at any time for purposes of continual improvement.

#### 5. REQUIRED KEY PERFORMANCE ELEMENTS

- A. ASTM International tenderness standard declaration - The referenced tenderness standard must be current and referenced.
- B. Tenderness Assessment Methodology - Tenderness will be measured using a USDA- approved and validated technology capable of assessing or predicting shear force. Assessed or predicted WBSF or SSF must be validated every year through an AMS-approved third party (see QAD



1003B: *Laboratory Proficiency Testing for Shear Force Measurements*). LP Program reserves the right to pull and submit samples to an AMS-approved third party to validate ongoing conformance at any time. Meat samples must be prepared and cooked to the appropriate endpoint temperature using the approved protocol from the most current edition of the American Meat Science Association's "*Research Guidelines for Cookery, Sensory Evaluation, and Instrumental Tenderness Measurements of Fresh Meat*." The tenderness assessment methodology (and supporting methodology for a predictive technology validation, if applicable; e.g., WBSF or SSF) will be identified.

- C. Testing instrument systems shall be used, operated, inspected, and maintained as described in ASTM International Standard F 2341. The areas addressed in this standard include instrument installation, operation, verification, inspection and maintenance, and operator training. SSF and/or WBSF instruments will be verified by the LP Program yearly over each third of the normal operating range that encompasses the tenderness standards (adapted from ASTM International Standard E 4 and F 2343). Predictive systems must be verified and documented for accuracy on each production day as specified by ASTM International Standard F 2343. Verification standards must cover each third of the normal operating range of the instrument system.
- D. Sampling plan - The sampling plan must be described, including the means to ensure that the sampling units are randomly selected.
- E. Traceability - Production and product must be documented in such a fashion that allows for the history, application or location of an item or activity, or similar items or activities, through product identification, records and procedures to be traced.
- F. A quality management system must, at a minimum, specifically address the following:
  - 1) The organizational structure necessary to carry out these requirements;
  - 2) Requirements for the production of quality data and the use of quality control records;
  - 3) Control of documents, records and changes;
  - 4) Control and calibration of measuring and test equipment; and,
  - 5) Control of related purchased material, including incoming inspection.

## 6. APPROVAL PROCESS

Approval will be determined on a case-by-case basis by the LP Program as outlined in QAD 1000. Interested parties must submit their quality management system plan and supporting data for an initial desk audit. Once the desk audit is satisfactorily completed, the quality management system will be verified through an onsite audit conducted by the LP Program. Once the onsite audit is satisfactorily completed, approval will be granted. Ongoing audit frequency of the approved program will be at least twice per fiscal year as outlined in QAD 1002 Procedure: *USDA Quality Systems Assessment (QSA)*



*Program.* The applicant must notify the LP Program of any quality management system plan changes prior to implementation and they must be approved by the LP Program prior to implementation.

## 7. MARKETING/PROMOTIONAL MATERIALS

The use of the "USDA Tender" or "USDA Very Tender" Shields will only be granted to those parties that have products certified according to these requirements. All marketing and promotional materials must be reviewed by the LP Program prior to final use by the approved program.

Once the program has been approved, label claims for "USDA Tender" or "USDA Very Tender" must also be approved by USDA's Food Safety and Inspection Service (FSIS), Office of Policy and Program Development (OPPD), Labeling and Program Delivery Staff.

## 8. ADDITIONAL INFORMATION

You may find more information about a documented quality management program in QAD 1000 Procedure: *Quality Systems Verification Programs General Policies and Procedures* and QAD1002 Procedure: *USDA Quality Systems Assessment (QSA) Program*.

Questions or comments pertaining to LP services should be submitted to:

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