

Lamb Instrument Grading Augmentation Pilot Project

February 2012

The Department of Agriculture (USDA), Agricultural Marketing Service (AMS), Livestock and Seed (LS) Program will utilize lamb carcass factors made by approved instruments to assist in determining the official quality and yield grade of lamb carcasses through a pilot project. The project will be conducted at one lamb processing plant utilizing the approved instrument systems. This limited scope will ensure that necessary and appropriate controls and evaluations are performed in a meaningful manner.

Prediction equations for yield (cutability) and quality grades are based on the current USDA grade standards. These equations will be utilized to compare instrument assessments to the grades based on grade standards as assessed by experienced lamb carcass evaluators. The overall objective of the pilot serves to provide a more accurate and precise grading program. The pilot project will provide beta test data to assess the effectiveness and suitability of this new approach and technology.

Grading and Verification Division (GVD) personnel will provide the day-to-day, carcass-to-carcass oversight of proper instrument operation. Oversight includes making certain that the instrument is operated according to LS Program protocols, that instruments are used only on carcasses that are presented properly for image capture and analysis, and that the resulting factors or grades are determined with a high level of reliability. If the instrument doesn't use proper image capture protocols, carcasses will be identified and held for chilled assessment utilizing the traditional grading methods. The instrument will be validated for proper calibration and performance before any shift operation begins and following periods of extended non-use.

The LS Program will analyze grade changes made by the USDA grader relative to the instrument factor and grade assessments. Analyzing the decision logic between in-plant graders and instruments will provide an accurate appraisal of any bias or influence.

At any time, if either the company or the USDA desires to terminate the pilot project, they may do so for cause. There will be a one-week adjustment period prior to initiating the pilot project in order for the graders to get comfortable with the instrument information screen and the evaluation process.

Procedural Elements of Lamb Instrument Grading Pilot Project

- 1 The Pilot Project will occur in either May or June of 2012 (definitive date contingent on schedules of all participating parties), at which time the plant personnel and USDA graders will acclimate and refine the procedures and processes for one week to comply with the subsequent Pilot Project requirements and procedures.
- 2 Data collection for USDA analysis will begin one week after the project is initiated and continue for 30 days or until such time that AMS obtains sufficient data.
- 3 Instrument data must be collected on all properly presented carcasses during the pilot and be associated with the carcass through a traceability code that will also be used to associate chilled AMS carcass assessments. Allowances will be made for instrument malfunction or other justifiable causes as long as the intent of the pilot project is being met.
- 4 Plant will only utilize the Pilot Project prediction equation supplied by USDA.
- 5 Plant will validate instrument calibration prior to the start of any shift. These system check plates will be supplied by the technology provider/plant.
- 6 The instrument will include a touch screen that has an override capability to record any change.
- 7 Plant will have trained personnel performing duties associated with all aspects of carcass presentation and image capture.
- 8 Plant will provide individual grade information on all carcasses established by the instrument.
- 9 Plant will maintain raw and processed images on all carcasses in order for USDA to validate the proper presentation of carcasses and image capture through review of these images. In addition, this data and images may be used for an industry/government assessment.
- 10 GVD will determine staffing levels of assigned graders to ensure all needed oversight and assistance is conducted as intended. The company will not incur a greater service charge over and above the traditional grading agreement.
- 11 GVD will determine the grade in the traditional manner on 10% of the carcasses assessed by the instrument in the chilled state. The final quality and final yield grade will be recorded and if determined to be different than the camera grade, the GVD grader may override and assign the proper grade.
- 12 USDA will analyze data collected from the pilot project and present findings in a non-identifiable manner to a group of industry, academia and government representatives. The participating company will also be supplied the findings.