
NET WEIGHT EXAMINATION

Purpose

This instruction defines the general requirements for determining net weight of lots certified by USDA graders.

Procedure

An official test weight is made if requested by an applicant or as part of an approved specification requirement. They may be made in conjunction with grading for quality or condition or in response to a request for weight test only. The test weight results must be recorded on a worksheet immediately after each scale reading. When recording product weights, a scale reading that is between two graduation marks must be read as the lower graduation mark. The weight is read as the higher graduation mark when recording values for tare weight determinations.

I. Establishing Tare Weights

Graders must keep a record of tare weights. Each resident grader is required to establish tare weights of packaging material for each brand or type of officially identified or certified product. This includes such items as plastic bags, liners, giblet wraps, clips, fiber containers, Styrofoam trays, etc. The written data shall be kept in a designated folder to be readily available for reference or for destination graders who may telephone for the information.

The tare weight for packaging materials at resident locations shall be established by weighing five individual dry packaging units and then averaging the weights. If the five containers are uniform in weight, the average tare can be calculated and used. Tare weights are considered as uniform when packing material weighing 2 pounds or less does not vary by more than 2 ounces or when packing material weighing up to 6 pounds shall not vary by more than 4 ounces. When determining the tare weight at time of test weighing, randomly select 5 containers from the sample selected for the official test weighing. When weighing shipping containers of poultry and red meat and the scale reads between two graduation marks, the correct net weight is read to the lower graduation mark. When establishing tare weights for empty consumer containers, shipping containers, and other packing material, the correct tare weight is read to the higher graduation mark.

During an official test weighing, if other specification factors are checked requiring removal of product from the master container or tare weights are not uniform, product shall be test weighed on a direct net weight basis as it pertains to the master container. NOTE: These tare weights shall be re-established quarterly, at a minimum; or, when the manufacture of the materials changes.

II. Establishing Tare Weights for Ice-Glazed Products

Percentage tare for ice glazed product shall be determined by averaging the results of all subgroups for a production shift. Subgroups shall be checked at least every 2 hours by weighing the unglazed sample, determining the glazed weight, and applying the following calculation:

$$\left(\frac{(\text{Glazed Weight}) - (\text{Dry Product Weight})}{\text{Glazed Weight}} \right) \times 100 = \text{Percent Glaze}$$

For cut-up chicken, the equivalent parts of one chicken shall be checked, or ten random parts when product consists of individual parts. The percentage tare used for test weighing procedures at time of shipment will be determined by averaging the shift percentages. When more than one production shift is included in a delivery unit, use the tare representing the largest volume of production for a shift.

III. Selecting Samples, Weighing, and Recording

Representative sample containers of product shall be predetermined as outlined in QAD Instruction 615, Lot Definition, and selected. Tare weight of containers is established as described in item I – Establishing Tare Weights, above, of this section. Filled containers are weighed on certified scales as listed in QAD Instructions 602, Scale Certification. Subtract the tare weight from the gross sample to determine the net weight and then record the weights on worksheet. For containers that show evidence of moisture absorption or other factors that cause a variation in container tare weights, product must be removed from containers and weighed on a direct net basis.

IV. Optional Online Test Weighing

As an option and upon review and approval by the Supervisor, products produced for approved specification type certifications may be test weighed on an online basis in lieu of test weighing at time of shipment. All weighing data shall be recorded on QAD Form. The following procedures shall be used when test weighing on an online basis.

1. Proper weighing equipment must be made available at approved grading stations where unbiased sampling can be accomplished. Product must be positively identified between each sample interval.
2. Tare weights shall be established.
3. Graders shall select and weigh five shipping containers each sampling interval.
4. The sample weights, minus the tare weights, shall be totaled, and the average net weight calculated for each sampling interval.



5. The acceptance criteria for each sampling interval are based on both the individual and average net weights. The minimum for individual shipping containers is 1 percent below the marked weight. Additionally, the average net weight of the five shipping containers must meet or exceed the marked weight. If any individual net weight or the average net weight of the five containers fails to meet the criteria, the product the sample represents will be retained and must be reworked.

6. Reworked product shall be resampled separately using the same number of samples (5) and applying the acceptance criteria listed on QAD Form Grading/Certification Certificates issued to cover product test weighed on an online basis will show the marked weight and the total net weight as the same. The following statement will be added to the remarks section of the certificate: "Total net weight of product represented on this certificate was determined using QAD online test weighing procedures."