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Moisture Loss: What is it? How much is allowed?

By: Tom Coleman

Moisture loss in prepackaged products contributes to the loss of weight or volume after packaging. Loss of weight may result from solvent evaporation, not just the loss of water. Packaged products may lose or gain moisture. The amount of loss or gain depends on many factors: the nature of the product; packaging material; length of time the product is in distribution; environmental conditions, and many other combinations of factors. Moisture loss may occur even when manufacturers follow "all the rules."

What do we allow? NIST Handbook 133 provides "moisture allowances" for some meat and poultry products, flour, and dry pet food. Dry pet food means all extruded dog and cat foods and baked "treat" products packaged in paper bags and/or cardboard boxes with a moisture content of 13 percent or less at the time of pack.

When testing packages of meat and poultry that bears the USDA Seal of Inspection using "used dry tare" and a Category A inspection, there is no moisture allowance. When testing meat and poultry from any USDA plant that bears the USDA seal of inspection using "wet tare" and a Category A inspection, use the following guideline.

- For packages of fresh poultry, the moisture allowance is 3 percent of the labeled net weight. For net weight determinations only, fresh poultry is defined as poultry above 3 °C (26 °F).
- For packages of franks or hotdogs, the moisture allowance is 2.5 percent of the labeled net weight.
- For packages of bacon, fresh sausage, and luncheon meats, there is no moisture allowance if there is no free-flowing liquid or absorbent material in contact with the product and the package is cleaned of clinging material. Luncheon meats are any cooked sausage product, loaves, jellied products, cured products, and any sliced sandwich style meat. This does not include whole hams, briskets, roasts, turkeys, or chickens requiring further preparation to be made into ready-to-eat sliced product. When there is no free-flowing liquid inside the package and there are no absorbent materials in contact with the product, wet tare and used dry tare are equivalent.
- When there is free flowing liquid or absorbent packaging materials in contact with the product all free liquid is part of the wet tare.