

GLOSSARY

Actin. A major protein in muscle tissue.

Actual Percent Pump. The amount (pounds) of a water-based or oil-based solution (curing, tenderizing, marinating, etc.) pumped or injected into a piece of meat or poultry that is not held for a period of time and allowed to drain prior to being further processed. This is expressed as a percentage of the weight of the meat or poultry before it is pumped with the solution.

Additive. Anything added to a meat or poultry product other than meat, poultry, or meat and poultry byproducts.

Antioxidant. A substance that retards oxidation. Antioxidants are added to meat and poultry products to prevent oxidative rancidity of fats.

Batch. An industry term that refers to all the ingredients in the formulation.

Binder. An additive used to improve the binding properties of lean meat or poultry or meat and/or poultry mixtures. Binders have strong affinity for water, therefore misuse of binders may cause the product to be adulterated with excess water.

Binding. The ability of sausage emulsion components to emulsify fats as well as water.

Bladders. The urinary bladders of slaughtered animals, which may be used as casings for stuffing some sausage products.

Brine Solution. An amount of water that contains salt.

Bungs. The terminal end of the large intestines of slaughtered hogs, they may be used as casings for stuffing some sausage products. Refers to the cecum or blind gut when derived from cattle.

Cold Spots. The area or areas within a smokehouse that are not exposed to as much heat as the rest of the smokehouse.

Comminution (Comminuting). The cutting, chopping, or grinding of meat or poultry into small particles.

Comminuted. Ground meat, poultry, meat byproducts, or poultry byproducts; finely comminuted meat, poultry, meat byproducts or poultry byproducts are often referred to as emulsified.

Condimental Substances. Nonmeat ingredients such as spices, seasonings, and flavorings that are added to sausage product.

Cover Pickle. A liquid brine, cure, or vinegar solution that covers submerged pieces of meat or poultry.

Cure. To add salt or salt brine and nitrite and/or nitrate, with or without sugar and other ingredients, to a meat or poultry product.

Cured, Comminuted Products. Products consisting of coarsely or finely ground meat and/or poultry and cure ingredients mixed together (bologna, turkey salami, pepperoni, pepper loaf, etc.).

Cured, Dry Products. Products that have dry or powdered cure ingredients directly applied to the surface of the meat or poultry (ham, pork shoulder, pork belly, etc.).

Cured, Pickled Products. Products that are pumped or massaged with, or immersed in, a pickle solution of cure ingredients (ham, corned beef, poultry breasts, etc.).

Dry Salt Cured Products. Products that have had a pickle solution of cure ingredients directly pumped into the muscle tissue (not through the circulatory system) before having the dry or powdered cure ingredients applied to the surface of the meat or poultry.

The meat and poultry may not be immersed in the pickle solution. To facilitate the penetration of salt, the meat or poultry may be momentarily moistened just before being covered with the dry curing ingredients.

Effective Percent Pump. The weight gained (expressed as a percent) by the meat or poultry after draining for a specified amount of time (up to a maximum of 30 minutes), and represents the amount of reactive solution that remains in the product.

Any reactive ingredients (nitrites, phosphates, enzymes, etc.) in the solution are thought to remain in solution during the 30 minutes after pumping, rather than reacting immediately with the meat or poultry protein. Therefore, using the effective percent pump in calculations more accurately reflects the ingoing amount of ingredients.

Emulsion. A semi-fluid mass with fat particles held or suspended by the meat and/or poultry protein and water.

Emulsion Breakdown. The separation of components making up an emulsion. When separation occurs during cooking, as is the usual case, breakdown products are fat, gelatin, and moisture.

Encapsulate. To encase in a capsule; surround with a gelatinous or membranous envelope.

Extender. An additive that increases the weight and changes the texture of meat and poultry products, e.g., cereal, starches, etc.

Fat Cap (Fat Capping). The accumulation of unbound fat at the ends of finished sausages, usually occurring from an emulsion breakdown.

Finished Weight, Finished Product Weight, or Weight of the End Product. All these terms refer to the weight of the product after processing.

The finished product (after processing) could be a cooked, ready-to-eat turkey breast or could be a raw, ready-to-cook corned beef brisket, depending up the processing procedures performed at the establishment and the form in which the products are packaged and labeled for sale.

Unlike the green weight, which is the weight of the meat and/or poultry only, the finished weight is the weight of the meat and/or poultry plus the weight of any ingredients added during processing, minus the **actual** shrink weight.

Formulated Weight, Weight of the Formulation, or Batch Weight. The total weight of all the ingredients of a product **after** it is formulated, including pumping and draining, if relevant.

For cured or uncured comminuted products, the formulated weight would be the weight of the meat and/or poultry plus the weight of all the ingoing ingredients.

For products that have been treated with a water-based or oil-based solution (curing, tenderizing, marinating, etc.), the formulated weight would be the weight of the meat and/or poultry plus the weight of the solution's ingredients at a specified percent pump or pick-up.

Product formulation may be found on the label approval transmittal form or in the establishment's formulation records. For uncooked products, formulated weight and finished weight may be identical.

Greasing Out. A term used to describe emulsion breakdown. The fat is no longer held in suspension. Too little protein or too much heat in the product usually causes it.

Green Weight. The weight of the meat and/or poultry (ham, breast, belly, beef or pork trim for sausage, etc.) prior to processing (such as grinding and adding ingredients, pumping with a solution, adding batter and breading, cooking, or drying). Nothing has been added or removed from the meat and/or poultry.

For example, in section 9 CFR 319.107 of the regulations, the term **fresh**, as in "... weight of the fresh uncured pork bellies ...", means the same as "**green weight**" because it is referring to bellies that are unprocessed (raw).

Hydroflake. The method of thinly slicing or flaking frozen boneless meat or poultry preparatory to grinding.

Ingoing Amount. The amount of an ingredient added to a product when the product is being formulated. The weight or parts per million of nitrite added to meat and/or poultry is an ingoing amount.

Meat. The part of the muscle of any cattle, sheep, swine, or goat that is skeletal or that is found in the tongue, in the diaphragm, in the heart, or in the esophagus with or without the accompanying and overlying fat, and the portions of bone, skin, sinew, nerve, and blood vessels which normally accompany the muscle tissue and which are not separated from it in the process of dressing. It **does not** include the muscle found in the lips, snouts, or ears.

Meat Block. A packing plant term that represents the total of the green weights of the meat and/or poultry and/or meat/poultry byproducts used in the formulation of a product.

Meat Byproduct. Any part capable of use as human food, other than meat, which has been derived from one or more cattle, sheep, swine, or goats.

Meat Food Product. Any article capable of use as human food which is made wholly or in part from any meat or other portion of the carcass of any cattle, sheep, swine, or goats, except such articles as organotherapeutic substances, meat juice, meat extract, and the like, which are only for medicinal purposes.

Middles. Derived from the large intestines of slaughtered animals, may be used as casings for stuffing some sausage products.

Myosin. A major protein in muscle tissue.

Over chopping. Excessive cutting of a sausage emulsion during preparation, principally the fatty materials, resulting in an unstable emulsion.

Overhauling. The process of transferring meat or poultry from one curing vat to another and then pouring the original curing solution over the meat or poultry when it is in the second vat. This process insures a more uniform cure by mixing the curing solution and exposing individual pieces to the curing solution at a different location in the curing vat.

Partially Defatted Tissue. Beef or pork tissue subjected to a low temperature rendering (120°F or less) to remove fat but *not* to denature protein; limited to a usage level of 15 % in the meat block of products in §319.180.

Peelability. The removal of inedible casings from sausages; usually referring to the removal of cellulose casings from frankfurters without tearing the frank itself.

pH. The negative logarithm of the effective hydrogen ion concentration or hydrogen ion activity in gram equivalents per liter; used in expressing both acidity and alkalinity on a scale with values from 0-14, with 7 representing neutrality numbers less than 7 increasing acidity, and numbers greater than 7 increasing alkalinity.

Percent Gain. The weight gained by a meat or poultry cut or product resulting from the application of a water-based or oil-based solution. This is expressed as a percentage of the meat or poultry cut or product before the solution was applied.

Percent Pick-up. The amount (pounds) of a water-based or oil-based solution (curing, tenderizing, marinating, etc.) absorbed by an immersed piece of meat or poultry. This is expressed as a percentage of the weight of the meat and poultry before it is treated with the solution.

Percent Pump. The amount (pounds) of a water-based or oil-based solution (curing, tenderizing, marinating, etc.) pumped or injected into a piece of meat or poultry. This is expressed as a percentage of the weight of the meat or poultry before it is pumped with the solution.

Most pumped meat and poultry products are purposely held for a period of time, and allowed to drain prior to being further processed. When pumped products are drained, restricted ingredient calculations should be made using the effective pump rather than the actual pump. The drain time is not mandatory, so for products that are pumped, stuffed, and cooked in a continuous process, the actual percent pump should be used in calculations.

Permeable. Capable of penetration from the inside and outside.

Phosphate. An additive used to increase the water-retaining capacity of meat and poultry tissue. Misuse of phosphate solutions may cause the product to be adulterated with excess water.

Pickle. Any brine, cure, vinegar or spice solution used to preserve or flavor food.

Protein 1 Materials (Group 1 protein-contributing ingredients)□ All ingredients of slaughtered livestock or poultry origin from muscle tissue that is skeletal or that is found in the edible organs, with or without the accompanying and overlying fat, and the portions of bone, skin, sinew, nerve, and blood vessels that normally accompany the muscle tissue and that are not separated from it in the process of dressing. Examples include: meat byproducts, poultry products, and mechanically separated (species).

Exception: meat byproducts and poultry products derived through hydrolysis, extraction, concentrating, or drying *will not* be classified as protein 1 material.

Protein 2 Materials (Group 2 protein contributing ingredients) □ All

proteincontributing ingredients of slaughtered livestock or poultry origin that have been processed by hydrolysis, extraction, concentrating, or drying, *and any other* ingredient that contributes protein. Examples include: plant products, dairy products, egg products, yeast products, or their derivatives.

Poultry. Any domesticated bird (chicken, turkeys, ducks, geese, or guineas), whether live or dead.

Poultry Food Product. Any product capable of use as human food which is made in part from any poultry carcass or part.

Poultry Product. Any poultry carcass or part or any product which is made wholly or in part from any poultry carcass or part.

Projected Finished Weight (PFW) or Calculated Finished Weight. The calculated weight a product is **expected** to have after it is processed. Projected finished weight may be calculated for either raw or cooked products.

For a raw comminuted product **with** a water limitation, the PFW would be the formulated weight **minus** the weight of the water in the formula and its targeted percentage in the finished product, **and minus** the weight and percentage limitation of each restricted ingredient (with a limitation based on the PFW), divided by the percentage of the formula weight remaining after all the aforementioned deductions have been made.

For a raw comminuted product **without** a water limitation, the PFW would be the formulated weight **minus** the weight and percentage limitation of each restricted ingredient (with a limitation based on the PFW), divided by the percentage of the formula weight remaining after the aforementioned deductions have been made.

For a cooked comminuted product, the PFW would be the formulated weight, minus the **expected** shrink.

Protein Fat-Free (PFF). The meat protein content (inherent in the raw, unprocessed pork cut) expressed as a percentage of the nonfat portion of the finished weight.

The PFF % reflects the presence of added ingredients, including water, and relates labeling claims to the percent of meat protein in the product on a fat-free basis. The more solution/substance (water and ingredients) added to the pork product the lower the PFF percentage. The amount of solution added to the pork product is represented by the qualifier to the product name, e.g., “natural juices” vs “water added.” A pork product with the water added qualifying statement has had more solution/substances added to it. Labeling is the key to distinguishing between products.

Proteolytic. A term used to describe substances, usually enzymes, that attack or digest complex proteins, resulting in simpler proteins or amino acids.

Pump. To inject a solution (curing, tenderizing, etc.), either intramuscularly or intraarterially into a cut of meat or poultry.

Restricted Ingredient. A product component that:

- Must be used in some required amount or percentage when the product is formulated or be in the finished product in some required amount or percentage; or
- May be added to a product when the product is formulated or be a component of the finished product in an amount no greater than a specified maximum amount or percentage; and/or
- In addition to quantitative limits, may be subject to certain use conditions.
- May be prohibited from use in certain products.

Rounds. The animal casing derived from the small intestines of slaughtered animals (beef, sheep, calves, and swine).

Rework. Any fully or partially processed product (e.g., ruptures natural casings before cooking or packaging) rerouted for reasons other than unwholesomeness or adulteration and intended for inclusion in cooked or fresh sausages, loaves, and similar products.

Short Out. Another term meaning an emulsion breakdown.

Shrinkage. The weight lost by a meat or poultry product during cooking, cooling, drying and storing.

Standard of Identity. The minimum requirements (cut, ingredients, processing, etc.) for meat or poultry food product to be identified or labeled with an established or acceptable name.

Synergist. A substance, that when used with another has a better effect than if each one was used alone.

Variety Meats. Those meats previously referred to as meat byproducts. The term “variety meats” is usually used on meat labels to describe any meat byproducts (heart, liver, or partially defatted beef fatty tissue) contained in the meat product such as bologna or frankfurters.