



American Meat Science Association

MEAT SCIENCE LEXICON 2.0



The objective of the lexicon is to define meat and meat products and provide a standardized lexicon of terms for use by the meat industry and all affiliated parties to accurately describe and classify meat and meat products when conveying meat related information. See the Meat Lexicon Infographic 1.0 for more information or visit the Meat Science Lexicon.

GENERAL MEAT PROCESSING TERMS AND DEFINITIONS

GENERALLY, THREE DISTINCT PROCESSES ARE USED IN THE MEAT INDUSTRY:

1) slaughter/chilling (or harvest), 2) fabrication (minimal processing), and 3) further processing.

SLAUGHTER/CHILLING (OR HARVEST): The steps followed from the time the live animal is stunned or immobilized through the dressing process to the point that the carcass is placed in refrigeration for cooling. This period is often referred to as the conversion of muscle to meat.

FABRICATION (MINIMAL PROCESSING): The process of taking the carcass itself (which is in a form of limited value for consumers) and converting it into useful end-products for consumers or raw materials for subsequent processes and products. The process includes deboning and cutting the chilled carcass (considered meat at this point) into smaller, more useful components (e.g., wholesale, primal, subprimal, retail cuts, and trimmings).

FURTHER PROCESSING: Certain cuts like hams and the trimmings generated from fabrication are converted into a variety of value-added, newly created, and uniquely different meat products by a host of technologies including grinding, chopping, mixing, curing, smoking, cooking, drying, and fermenting. These additional procedures are classified as processing.

MEAT PROCESSING: All meat is processed to varying degrees. This can include any meat product produced via various levels of physical or biochemical transformation of meat from a chilled carcass into a final or finished product that is deemed desirable by consumers.

MINIMAL PROCESSING: Any process where raw, uncooked meat products have not been significantly altered compositionally and contain no added ingredients, but may have been reduced in size by fabrication, mincing, grinding, and/or a meat recovery system.

FURTHER PROCESSING: Further processing describes any process where meat products undergo a transformation, beyond minimal processing, containing approved ingredients, and may be subjected to preservation or processing step(s) through the application of salting, curing, fermentation, thermal processing (smoking and/or cooking), batter/breading, or other processes to enhance sensory, quality and safety attributes. These products may include ready-to-cook and ready-to-eat products.

ADDITIVE: Any food ingredient added to a meat product other than meat or edible offal. Additives must be approved by regulatory agencies (i.e., USDA-FSIS) and included on the product label. They are generally added to improve product qualities such as appearance, flavor, shelf-life, and safety (antimicrobials).

ADVANCED MEAT RECOVERY (AMR): A high-pressure mechanical process used to remove lean meat from bones. The AMR machinery cannot grind, crush, or pulverize the bones to remove this tissue. Therefore, the meat cannot contain more than 130 mg of calcium per 100 g of tissue. Trimmings that exceed this calcium threshold are classified as mechanically separated.

COMMERCIALY STERILE: Treatment of a food within a can, flexible pouch, or other hermetically sealed vessel with heat, irradiation, high-pressure or other processes, alone, or in combination with other ingredients, or treatments, to render the product free of microorganisms capable of growing in the product under non-refrigerated conditions (over 50°F or 10°C) at which the product will be held.

COMMINATION: A mechanical process to reduce meat particle size by chopping, grinding, mincing, or other means of physical reduction.

CONDUCTION, THERMAL: Particle to particle heat transfer within a food product.

CONVECTION: Heat transfer from steam, air, or water to the surface of a product.

DRYING: A process where water is removed from a food product by evaporation or sublimation.

HIGH-PRESSURE PROCESSING (HPP): The application of high hydrostatic pressure (HHP) or ultra-high pressure processing (UHP) to liquid and/or solid foods, with or without packaging at pressures between 100 and 800 megapascals (MPa) to inactivate microorganisms.

NON-MEAT INGREDIENT: A component added to meat (e.g., salt, spices, nitrite) to improve quality, safety, and/or shelf-life of the product.

READY-TO-EAT: Meat products that require no further preparation on the part of the consumer before they are consumed. These products are often reheated to enhance palatability.

TENDERIZED: A meat product that has been subjected to a physical, chemical, or enzymatic process to improve textural properties.

