

MD.22.**Title**

ELABORATION AND IMPLEMENTATION OF THE INNOVATIVE TECHNOLOGY OF DRY AGED BEEF

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Description**EN**

Beef is valued for its important macronutrient content in ensuring a healthy and balanced diet. It is a good source of protein, vitamin B12, niacin, zinc and iron. The nutritional quality of beef depends on the ratio of protein fractions, namely myofibrillar proteins (actin and myosin) and stromal proteins (collagen). The protein content, proteolytic enzymes together with the speed of muscle contraction (beef - slow contraction), the type of metabolism (oxidative for beef) determines the variation of the aging speed of muscle type. This indicator is the lowest for beef compared to other types of meat. Thus, beef for culinary treatment is subjected to longer heat treatments, which have a negative effect on the initial chemical composition. In this context, in order to obtain high characteristics of tenderness, juiciness, consistency, beef can be subjected to the dry aging process, with the controlled parameters in the aging room.

The project focuses mainly on specific parameters, including aging (duration, temperature, relative humidity and airflow), organoleptic quality (aroma, tenderness and juiciness), physico-chemical and microbiological. During the process, the processes of proteolysis and lipolysis intensify, the meat becomes juicy, the aroma becomes more intense due to the reduction of sugars, the release of free amino acids, peptides and the breakdown of ribonucleotides, natural meat enzymes break down proteins (solubilization of proteins) and connective tissue which leads to increased meat tenderness. The implementation of a aging technique by drying beef in aging room with predetermined parameters became the first such technology in the Republic of Moldova.