

### **B.3. THE IMPACT OF THE DRY AGED BEEF PROCESS PARAMETERS ON END PRODUCT QUALITY**

**BULGARU VIORICA**

*Technical University of Moldova*

**Abstract.** In recent years, meat tenderized by the "dry aged beef" method is appreciated among customers of the HORECA (Hotel-Restaurant-Cafe) sector in the Republic of Moldova but the product remains to be imported, due to lack of locally implemented manufacturing technology, lack of regulatory documentation for the technological process, which would allow the production of local tender meat by applying "dry aged beef" technology. This paper involves researching the aging process by drying with predetermined parameters (duration, temperature, relative humidity and speed of air circulation), quality indices such as water retention capacity, weight loss, moisture content, protein, collagen, etc. The quality of matured meat is influenced by large groups of factors: 1. The chemical composition of the meat influenced by breed, age, maintenance conditions, type of feed; 2. Aging chamber parameters. The study used Black Angus beef, raised on farm conditions in the Republic of Moldova, matured by drying for 32 days with the following controlled parameters of temperature (0 - 4 °C), relative humidity (75 - 85%) and air circulation speed (0.3-2 m/s) in the maturation chambers. Weight loss increases with increasing dry aging, major losses being observed in the first aging period (7-10 days), this result being influenced by the decrease in humidity throughout aging, while for protein and collagen content no significant changes were found, results presented by other authors. Also, in the first 7 days there is a significant decrease in water retention capacity from 78% to 63%, with subsequent increase to values of 86% at 28 days of dry aging. The dry aging process contributes to the drying of the outer part of the meat, a process that leads to losses in the mass of the meat by about 24%. The parameters of the dry aging process as well as the stable change of humidity positively influence the activity of the natural enzymes of the meat which lead to the solubilization of an important part of proteins and collagen, which leads to the increase of the tenderness of the meat.

**Keywords:** dry aged process, beef, aging parameters.