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IMPROVEMENT OF METHOD pH-METRY MEAT IN PIG FARMING

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The role pH-metry in evaluation of meat quality, especially pork, is extremely high. Suffice it to say that it is single, moreover, easy to measure universal indicator of meat quality in general. In this connection many meat processing enterprises and research laboratories prefer to estimate mainly on this indicator of carcasses quality directly on the line (in the first hour after slaughter — pH 45). The widespread adoption intensive technologies of pork production, accelerating the process of animal development introduced in practice of pig farming such undesirable effects like malformations resulting in superconstitutional of pigs to stress, disruption normal process of post-slaughter meat glycolysis and appearance in 40–50 % of cases substandard pork meat known as DFD and PSE meat. Moreover, in first hour after slaughter pH value that may not be reflected. Now the rating is only for pH45 or even on the final pH (after meat maturation for 24–48 hours) does not fully reflect the carcass quality, as normal dynamics of falling this indicator has changed significantly.

We assume that method of meat pH-metry can get improvement, retaining its advantages, only considering the individual characteristics of meat glycolysis in the carcass immediately after slaughter. In other words, in process of assessing meat quality should introduce a new element — pH measurement in the glycolytic processes dynamics in carcass, or rather, determination the rate of pH fall in the initial phase of meat maturation.

The basis of developed by us method allowed to determine the rate of natural decrease in pH (the rate of pH fall) in meat glycolysis. Definition of meat quality includes two-time pH measurement in carcass after slaughter, and repeated pH measurements is carried out after a few minutes after the first and then determine the natural fall of pH meat in interval between two measurements, i.e. pH is measured twice in an interval of 45–60 min after slaughter. To do this, use a pH-meter with a combined electrode knife, which is introduced into carcass incision. Next, calculate the rate pH fall, after which meat will belong to relevant quality category. When velocity (0.4-1.2)$\bullet 10^{-2}$ pH/min, meat is considered good quality, and at speeds above $1.2\bullet 10^{-2}$ pH/min and below $0.4\bullet 10^{-2}$ pH/min) — low quality.

So, determination the rate of natural drop in pH allows to increase the accuracy determining quality of pork in the carcass, using the available means of measurement at a low cost materials and labor in terms production of meat and pigs breeding on meat content.