Analysis of Swine Meat Quality and Classification by Class Quality Exploited in Semi-Intensive System

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Abstract

Carcass quality and of the meat from swine fattened in semi-intensive system differs depending on the temperature from the shelter. In case of group I where during fattening period the temperature from shelter has values ranged between l0-14° C, to the carcasses classified through objective graduation method, the highest share is represented the carcasses from the classes of quality of U and R (75.12%), but also the two lower classes O and P where the share is 11.13%. In case of group II, fattened in shelters with controlled temperature the carcasses share by over 56.20% lean meat in carcass is higher compared with the first group. In the categories U and R were framed 74.73% of carcasses.

Keywords: semi-intensive system, swine, meat, carcasses

1. Introduction

For growth and exploitation of swine are required knowledge's on the targeted productions, on the feeding of swine, on the operating technologies, on the facilities, but it can not be neglect the reproduction [1-3].

The growth and exploitation system of the swine is defined, primarily, by the degree of technicality used, by the degree of concentration of population and production, by the degree of technical-material base. To the swine species, the degree of technicality is given by the scientific level of feeding, care and maintenance, reflected in achieving of weight (body mass) at slaughter at a certain age, by the slaughtering efficiency, by the quality of the carcass, by the size and degree of farms specialization, by the measure in witch the technological flow ensure the regularity of production [4,5].

Development of livestock production is required primarily by the necessity to transform the products obtained from vegetable sector (cereals etc.) in animal products (meat if the present study) transformation process, mentioned above involve both consumption of material resources and consumptions of human nature, which determines the increase of the value of livestock products [6].

Implementation of quality classification of swine carcasses from Romania has generated substantial improvement of the quality of swine herds and alignment of them with specific international standards [7].

The percentage of lean meat in carcass has increased according to the weight at slaughtering and genetic value of biological material subject to fattening. It is not recommended slaughtering at the big weights because the percentage of lean meat in carcass is significantly reduces on the expense of fat, which has negative effects in objective grading of carcasses through Europe system and on the manner of payment of carcasses [8-10].

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2. Materials and methods

In order to writing this scientific work we have undertaken studies in a farm of breeding and exploitation of swine in the semi-intensive system, seeking to determine the quality of swine meat carcasses analyzed in two groups of animals according to temperature from shelters registered during fattening.

3. Results and discussion

The carcass quality and of the meat from swine fattened in shelters with or without control possibilities of microclimate factors, and in particular of the temperature differ to the two groups.

So, in the case of first group during fattening the temperature from shelter has had values between l0-14° C after the slaughtering of those 150 heads the carcasses were classified through objective method of objective grading, the results obtained being presented in Table 1.

Table 1. The quality of carcasses obtained from group I of fat pigs

Quality class	The temperature from the shelter during fattening	Carcasses classified number	% from the total number slaughtered	% lean meat
E	10-14°C	20	13,75	55,96
U		68	45,00	54,26
R		45	30,12	48,79
O		13	8,41	44,48
P		4	2,72	39,88
Total		150	100,00	53,17

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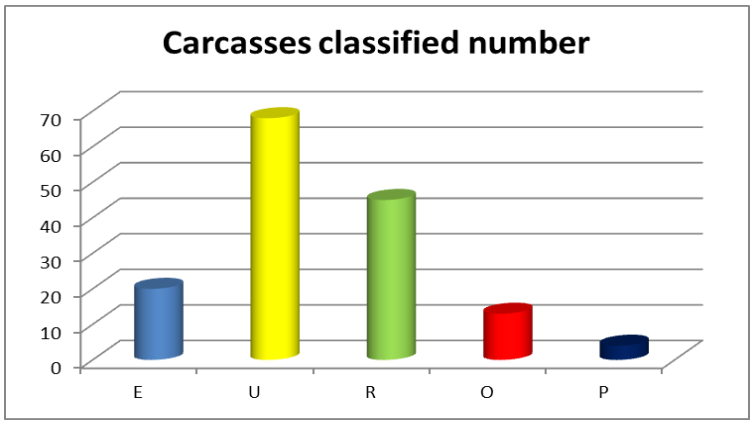

Figure 1. Number of classified carcasses

Table 2. The classification of carcasses obtained from group I of pigs

Quality class	The temperature from the shelter during fattening	Carcasses classified number	% from the total number slaughtered	% lean meat
E	15,5-22,4°C	33	21,99	56,10
U		79	52,51	55,22
R		33	22,22	49,44
O		4	2,54	44,90
P		1	0,74	44,05
Total		150	100	55,47

It can be seen that the highest share of carcasses ranks in U and R quality classes, the share being 75.12% - meaning 113 carcasses. In the E superior class were framed 20 carcasses fact which shows that lower temperatures during fattening, even if it resects the necessary of pigs at this age category, than the optimum thermal comfort requires the achievement of carcasses with lower percentages of lean meat (meaning the percentage of lean meat was ranged between 48.79 to 55.96%).
Not the same thing is found in the case of group II where the share of carcasses with over 56.10% lean carcass is higher compared with the first group. In the categories U and R the share of carcasses represents 74.73% (table 2).

4. Conclusions

Analyzing the results obtained from the two groups studied it is found that swine fattened at lower temperatures in shelters without additional heat sources have a higher percentage of fat in the carcass compared to pigs fattened at the optimum temperature in shelters with possibilities for adjustment of microclimate factors on witch the percentage of lean meat in the carcass is 55.47%.
In order to obtain maximum productive indicators and upper class carcasses, it is recommended that swine fattening, to be done in shelters with possibilities of adjustment of the microclimate factors, the optimum temperature being 15.5 to 22.4 ° C.

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