

OPTIMIZING THE TECHNOLOGY OF RECONDITIONING THE REFORMED SHEEP

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Abstract

It was supervised the increasing of meat quantity at reformed sheep and also the improving of its quality; grazing field adult sheep reformed reconditioning was used therefore obtaining total increases weight variable of 5.76-12.94 kg depending on the breed or population the animals were belonging to, the carcass weight varied between 20.28 and 28.79 kg, achieving at slaughtering a butchery productivity of 42.48-47.4%, variable with the breed and population; at the reconditioning of reformed sheep at permanent stabulation a total benefit of de 5.76-14.65 kg has been obtained, carcasses of about 20.28-29.19 kg, achieving at slaughtering a butchery productivity of 42.91-47.9%; at the reconditioning of reformed rams at permanent stabulation a total benefit of de de 7.91-16.94 kg, the carcass weight of 29.28-42.50 kg, butchery productivity of 43.53-45.8%; an obvious improvement of the carcasses was noticed, by increasing the ratio of 1st quality meat and increasing the proportion meat/bones.

Key words: reformed sheep, slaughtering yield, reconditioning, carcass weight, permanent stabulation

INTRODUCTION

Fattening the reformed sheep (excluded from the reproduction) intends to increase the meat production obtained from the adult sheep (old ones) and to improve the meat gustative features (Taftă V., 2008). Reconditioning the reformed sheep ensures an increase of carcass meat quantity, of about 30% and due to the improvement of the meat quality ensures the revaluation of the carcasses at prices considered to be favourable to the sheep breeders.

MATERIAL AND METHOD

The works were performed at ICDCOC Palas Constanța, the material used during the experiences belonging to Palas Merino breed, Palas milk population, Palas meat population, Palas prolific population, Țurcană breed and Țigaie breed.

Reconditioning of the reformed sheep was accomplished on the grazing field during a period of 60 days and 20 days on sheep fold, or only 60 days on sheep fold, in stabulation. Reconditioning the reformed rams was performed within the permanent stabulation during a period of 60 days.

The reconditioning on grazing field of the reformed adult sheep, for 60 days, was accomplished with an average consumption of about 7.6 kg green mass/head and a supplement of about 0.3 kg of lucern hay and 0.3 kg concentrated fodder (0.1 kg corn grains, 0.1 kg sun flower groats) ground and mixed as a unique blend; the entire ratio having a nutritive value of 2.19 kg SU, 1.87 UNC, 218 g PDIN and 193 g PBDIE; and 20 days on sheep fold, for the finishing off, period in which the sheep that have not received 0.5 kg lucern hay daily, 1 kg of barley straw, 2.5 kg corn elevator and 0.9 kg concentrated fodder (0.5 kg corn grains, 0.25 kg barley grains and 0.20 kg groats), with a daily consumption of 2.82 kg SU, 2.05 UNC, 189 g PDIN and 215 g PDIE.

Reconditioning the reformed sheep within the permanent stabulation stage during a period of 60 days was performed with a daily fodder consumption of 1 kg of lucern hay, 0.5 kg barley grains, 2.5 kg ensiled corn and 1.20 kg concentrated fodder (0.5 kg corn grains, 0.5 kg barley grains and 0.2 kg sun flower groats), ensuring an individual consumption of about 3.04 kg SU, 2.5 UNC, 231 g PDIN and 250 g PDIE.

Reconditioning the rams reformed within the permanent stabulation stage during a period of 60 days was performed with an average fodder consumption of 1 kg of lucern hay during the entire period of fattening, 0.5 kg barley straw, 1 kg ensiled corn and 1.75 kg concentrated fodder (0.5 kg corn grains, 0.75 kg barley grains and 0.2 kg sun flower groats), ensuring an individual consumption of about 2.87 kg SU, 2.56 UNC, 194 g PDIN and 236 g PDIE.

Control slaughtering were accomplished, evaluating the slaughter house potential and the carcasses' quality, making use of the customary work methods.

RESULTS AND DISCUSSIONS

Reconditioning on grazing field of the reformed mother sheep was accomplished to the sheep belonging to Palas milk population, Palas Merino breed, meat population, prolific population, Țigaie and Țurcană (table no. 1).

Table no. 1
 Bodyweight, growing potential, carcase weight and slaughtering productivity of reformed mother sheep and reconditioned on grazing field

Breed or population	n	Initial average weight (kg)		Total increase of weight (kg)		Carcase's weight (kg)		Potential at slaughtering %	
		$\bar{X} \pm s_{\bar{x}}$	V%	$\bar{X} \pm s_{\bar{x}}$	V%	$\bar{X} \pm s_{\bar{x}}$	V%	$\bar{X} \pm s_{\bar{x}}$	V%
Palas milk population	20	44.33±3.22	32.99	9.36±1.47	70.24	23.93±2.50	46.72	44.6±2.8	28.08
Palas Merino	25	46.24±4.11	44.44	11.88±1.63	68.60	27.23±2.16	39.66	46.9±1.7	18.12
Palas meat population	25	47.87±3.75	39.17	12.94±1.58	61.05	28.79±1.94	33.69	47.4±2.4	25.32
Palas prolific population	20	44.65±2.85	28.55	10.25±1.34	58.46	24.64±1.47	26.68	44.9±2.7	26.89
Țigaie	25	41.62±3.47	41.68	5.76±1.02	88.54	20.13±1.07	26.57	42.48±2.7	31.77
Țurcană	25	40.35±4.12	51.05	6.81±0.98	71.95	20.28±1.03	25.39	43.01±1.4	16.27

The sheep belonging to Palas milk population registered an initial average weight of 44.33±3.22 kg, the total increase in weight was that of 9.36±1.47 kg, the carcase weight was that of 23.93±2.50 kg, accomplishing a slaughtering productivity of 44.6±2.8%. The sheep belonging to Palas Merino breed registered an initial average weight of 46.24±4.11 kg, the total increase in weight was that of 11.88±1.63 kg, the carcase weight was that of 27.23± 2.16 kg, accomplishing a slaughtering productivity of 46.9±1.7%. The sheep belonging to Palas meat population registered an initial average weight of 47.87±3.75 kg, the total increase in weight was that of 12.94±1.58 kg, the carcase weight was that of 28.79±1.94 kg, accomplishing a slaughtering productivity of 47.4±2.4%. The sheep belonging to Palas prolific population registered an initial average weight of 44.65±2.85kg, the total increase in weight was that of 10.25±1.34 kg, the carcase weight was that of 24.64±1.47 kg,

accomplishing a slaughtering productivity of 44.9±2.7%. The sheep belonging to Țigaie breed registered an initial average weight of 41.62±3.47 kg, the total increase in weight was that of 5.76±1.02 kg, the carcase weight was that of 20.13±1.07 kg, accomplishing a slaughtering productivity of 42.48±2.7%. The sheep belonging to Țurcana breed registered an initial average weight of 40.35± 4.12 kg, the total increase in weight was that of 6.81±0.98 kg, the carcase weight was that of 20.28±1.03 kg, accomplishing a slaughtering productivity of 43.01±1.4%.

Reconditioning of reformed sheep during the permanent stabulation was performed on groups of 25 heads, during 60 days, ensuring them shelters of 1.2 m²/sheep head and fodder front of 0.35 m/head. The water and the salt were provided in abundance. The main results obtained are mentioned within the table no. 2.

Table no. 2
 Bodyweight , growing potential, carcase weight and slaughtering productivity of reformed mother sheep and reconditioned within the permanent stabulation stage

Breed or population	n	Initial average weight (kg)		Total increase in weight (kg)		Carcase weight (kg)		Slaughtering productivity %	
		$\bar{X} \pm s_{\bar{x}}$	V%	$\bar{X} \pm s_{\bar{x}}$	V%	$\bar{X} \pm s_{\bar{x}}$	V%	$\bar{X} \pm s_{\bar{x}}$	V%
Palas milk population	25	43.41±2.91	33.53	10.21±1.22	59.75	24.92±1.45	29.09	46.5±2.7	29.03
Palas Merino	25	45.73±3.21	35.09	13.86±1.48	53.39	28.35±2.10	37.04	47.6±1.3	13.66
Palas meat population	25	46.33±2.53	23.30	14.65±1.39	61.05	29.19±2.41	41.28	47.9±2.6	27.14
Palas prolific population	25	42.94±1.85	21.54	11.47±1.30	56.67	24.90±1.67	33.53	45.8±1.8	19.65
Țigaie	25	45.62±2.47	27.07	5.76±1.02	88.54	22.13±1.07	26.57	43.07±2.7	31.34
Țurcană	25	39.35±3.12	39.64	7.91±0.95	60.05	20.28±0.94	22.51	42.91±1.8	20.97

The sheep belonging to Palas milk population, reconditioned within the permanent stabulation stage registered an initial average weight of 43.41±2.91 kg, the total increase in weight was that of 10.21±1.22 kg, the carcase weight was that of 24.92±1.45 kg, accomplishing a slaughtering productivity of 46.5±2.7%. The sheep belonging to Palas Merino breed registered an initial average weight of 45.73±3.21 kg, the total increase in weight was that of 13.86±1.48 kg, the carcase weight was that of 28.35±2.10 kg, accomplishing a slaughtering productivity of 47.6±1.3%. The sheep belonging to Palas meat population registered an initial average weight of 46.33±2.53 kg, the total increase in weight was that of 14.65±1.39 kg, the carcase weight was that of 29.19±2.41 kg, accomplishing a slaughtering productivity of 47.9±2.6%. The sheep belonging to the prolific population registered an initial average weight of 42.94±1.85 kg, the total increase in weight was that of 11.47±1.30 kg, the carcase weight was that of 24.90±1.67 kg, accomplishing a slaughtering productivity of 45.8±1.8%. The sheep belonging to Țigaie breed registered an

initial average weight of 45.62±2.47 kg, the total increase in weight was that of 5.76±1.02 kg, the carcase weight was that of 22.13±1.07 kg, accomplishing a slaughtering productivity of 43.07±2.7%. The sheep belonging to Țurcana breed registered an initial average weight of 39.35±3.12 kg, the total increase in weight was that of 7.91±0.95 kg, the carcase weight was that of 20.28±0.94 kg, accomplishing a slaughtering productivity of 42.91±1.8%.

The data confirm a greater efficiency in the case of reconditioning the adult sheep during the permanent stabulation stage. in comparison with the reconditioning on the grazing field, applying to all populations and breeds of sheep.

Reconditioning the rams reformed within the permanent stabulation stage was performed on groups of 10 heads during a period of 60 days, ensuring them shelters of 1.6 m²/head and fodder front of 0.50 m/head. The water and the salt are provided in abundance. The main results obtained are mentioned in table no. 3.

Table no. 3
 Bodyweight, growing potential, carcase weight and slaughtering productivity of reformed and reconditioned rams and reconditioned within the permanent stabulation stage

Breed or population	n	Initial average weight (kg)		Total increase in weight (kg)		Carcase weight (kg)		Slaughtering productivity %	
		$\bar{X} \pm s_{\bar{X}}$	V%	$\bar{X} \pm s_{\bar{X}}$	V%	$\bar{X} \pm s_{\bar{X}}$	V%	$\bar{X} \pm s_{\bar{X}}$	V%
Palas milk population	10	62.27±5.3	27.07	12.56±2.29	57.66	34.27±3.08	97.40	45.8±2.1	14.50
Palas Merino	10	67.46±4.2	19.88	16.71±3.26	61.69	40.82±4.12	31.92	48.5±2.7	17.60
Palas meat population	10	69.34±4.8	22.12	16.94±2.57	47.98	42.50±2.77	20.61	49.7±1.6	10.18
Palas prolific population	10	64.39±3.6	17.97	14.76±1.83	39.21	35.93±2.43	21.39	45.8±1.8	19.65
Țigaie	10	60.12±2.47	12.99	9.26±1.02	34.83	30.13±1.07	26.57	43.4±2.7	19.67
Țurcană	10	59.35±3.12	16.62	7.91±0.95	37.97	29.28±0.94	10.15	43.53±1.8	13.13

The rams belonging to Palas milk population registered an initial average weight of 62.27±5.3 kg, the total increase in weight was that of 12.56±2.29 kg, the carcase weight was that of 34.27±3.08 kg, accomplishing a slaughtering productivity of 45.8±2.1%. The rams belonging to Palas Merino breed population registered an initial average weight of 67.46± 4.2 kg, the total increase in weight was that of 16.71±3.26 kg, the carcase weight was that of 40.82±4.12 kg, accomplishing a slaughtering productivity of 48.5±2.7%. The rams belonging to Palas meat population registered an initial average weight of 69.34±4.8 kg, the total increase in weight was that of 16.94±2.57 kg, the carcase weight was that of 42.50± 2.77 kg, accomplishing a slaughtering productivity of 49.7±1.6%. The rams belonging to Palas prolific population registered an initial average weight of 64.39±3.6 kg, the total increase in weight was that of 14.76±1.83 kg, the carcase weight was that of 35.93± 2.43 kg, accomplishing a slaughtering productivity of 45.8±1.8%. The rams belonging to Țigaie breed registered an initial average weight of 60.12±2.47 kg, the total increase in weight was that of 9.26±1.02 kg, the carcase weight was that of 30.13±1.07 kg, accomplishing a slaughtering productivity of 43.4±2.7%. The rams belonging to Țurcana breed registered an initial average weight of 59.35±3.12 kg,

the carcase weight was that of 7.91±0.95 kg, the carcase weight was that of 29.28±0.94 kg, accomplishing a slaughtering productivity of 43.53±1.8%.

At the commercial trenching of the carcase and its division on qualities and commercial areas following a French method it has been noticed an increase of 1st quality meat quantity (over 50% from the carcase) and at the fixing of the tissual composition of the carcase a greater percentage of meat was obtained in comparison with the one of the bones but the quantity of fat increased as well (related to 1 kg of meat the fat was about 0.24% and of bones about 0.37%)

CONCLUSIONS

1. At the reconditioning on the grazing field of the reformed adult sheep the following were obtained:

- total increases in weight of 5.76-12.94 kg, varying with breed or population;
- carcase weight was altering between 20.28 and 28.79 kg;
- at the sheep slaughtering the productivity obtained of the slaughter house was that of 42.48-47.4%, varying with breed or population.

2. At the reconditioning of reformed sheep during the permanent stabulation stage the following were obtained:

- total increases in weight of 5.76-14.65 kg;
- carcase weight was altering between 20.28-29.19 kg;

- at the sheep slaughtering the productivity of the slaughter house obtained was that 42.91-47.9%.

3. At the reconditioning of reformed rams during the permanent stabulation stage the following were obtained:

- total increases in weight of 7.91-16.94 kg;
- carcass weight was altering between 29.28-42.50 kg.;

- at the rams slaughtering the productivity of the slaughter house was that of 43.53-45.8%.

4. An obvious improvement of the carcasses was noticed by the increase of 1-st quality meat percentage and also of the meat/bones proportion.

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