Agrarian Bulletin of the Black Sea Littoral. 2026, Issue 119
ISSN2707-1162 (online) ISSN 2707-1154 (print) *//Сільськогосподарські науки//*
DOI 10.37000/abbsl.2026.119.23
УДК 636.3.081.2:636.3.083

Volodymyr Sheiko,
postgraduate student, Odesa State Agrarian University, Odesa, Ukraine
ORCID ID: 0009-0008-5208-8821
e-mail: attis.ukraine@gmail.com

DYNAMICS OF WEIGHT AND GROWTH RATES OF YOUNG STOCK OF DIFFERENT ORIGINS

Abstract.

The article highlights the relevance of studying the dynamics of live weight and growth rates of young sheep of different genetic origins under the conditions of modern meat sheep production development. It has been established that the intensity of growth in young animals is one of the key indicators of precocity, meat productivity, and the efficiency of selection and breeding work. The relevance of the research is determined by the need to increase sheep productivity through the use of crossbreeding and the selection of genotypes with a high growth and development potential.

The aim of the study was to investigate the peculiarities of growth, development, and formation of weight gains in young animals of different genetic origins. The research was conducted under the conditions of the farm enterprise "Sheyko" in Kyiv region using purebred Dorper sheep and crossbred lambs of different genotypes. Live weight parameters were assessed at different age periods, as well as absolute, average daily, and relative weight gains, growth coefficients, and growth indices.

It was found that purebred Dorper lambs were characterized by higher live weight and average daily gain compared to their crossbred contemporaries. At the same time, three-breed crossbreds demonstrated better growth performance compared to two-breed animals, indicating a positive effect of crossbreeding on the formation of productive traits. The most intensive growth was observed during the suckling period from birth to 3 months of age.

The practical significance of the study lies in the possibility of using the obtained results to improve breeding programs, increase meat productivity of sheep, and substantiate effective crossbreeding schemes in sheep farming.

Keywords: *lambs, live weight, crossbreds, average daily gain, growth and development, crossbreeding, meat productivity.*

Problem Statement. The efficiency of meat and dual-purpose livestock production is largely determined by the intensity of growth and development of young animals, since it is during the early stages of ontogenesis that the key productive traits are formed, which directly influence the final economic output of production systems. Dynamics of live weight and average daily gains are integral indicators reflecting the interaction between the genetic potential of animals and paratypical factors such as housing conditions, feeding level, and the adaptive capacity of the organism.

The study of young animals of different origins (breed, line, within-breed, or crossbred) is of particular relevance, as genetic diversity directly affects growth intensity, feed conversion efficiency, and resistance to environmental stressors. In the context of climate change, production intensification, and the need to improve resource

efficiency in animal husbandry, optimizing reproductive and productive traits of young stock has become a strategic priority [1, 2, 3, 4].

At the same time, the scientific literature shows a certain fragmentation of data regarding the comparative assessment of growth dynamics of animals with different genetic origins under identical management conditions, which complicates the development of unified approaches to selection and breeding. The relationships between animal origin, growth intensity, and adaptive capacity during early ontogeny also remain insufficiently studied.

In this regard, there is a need for a comprehensive analysis of live weight dynamics and average daily gains in young animals of different origins in order to identify the most productive genetic combinations and improve selection and technological approaches in livestock production. Therefore, the aim of this study is to provide a comprehensive assessment of live weight dynamics and average daily gains in young animals of different origins to determine the influence of genetic factors on growth intensity and to substantiate effective selection and management decisions in animal production. The study also aims to develop scientifically grounded recommendations for production systems regarding growth intensity and development of animals of different origins.

Analysis of Recent Research and Publications. An analysis of contemporary scientific publications indicates that in sheep breeding, the origin of young animals is one of the key factors influencing live weight dynamics, growth intensity, and meat productivity. Researchers place particular emphasis on comparisons between purebred, crossbred, and interbreed progeny, as heterosis effects in sheep are especially pronounced due to the high genetic variability among breeds.

Numerous studies have demonstrated that sheep breeds differ significantly in growth rate and live weight performance of young stock. Specialized meat breeds such as Suffolk, Texel, and Charollais show higher average daily gains compared to wool and dual-purpose breeds [5, 6, 7, 8]. In particular, the Texel breed is characterized by high muscularity and low fat deposition, resulting in increased meat yield, while Suffolk sheep are known for rapid early growth and superior carcass traits [7, 9]. The Charollais breed demonstrates a balanced combination of precocity and meat quality, making it highly effective in commercial crossbreeding systems.

Studies under intensive production systems show that differences in live weight between breeds may reach 10–35% at the age from weaning to 6–8 months, which is directly associated with genetically determined muscle growth capacity and metabolic efficiency.

*Crossbreeding and Heterosis in Sheep***.** One of the most extensively studied areas is the use of crossbreeding in sheep production. Studies confirm that crossbred lambs: have higher live weight at weaning; demonstrate faster average daily gains; exhibit better feed conversion efficiency; show higher survival rates.

In particular, studies on terminal crossbreeding systems (e.g., meat rams × ewes of dual-purpose breeds) have reported an advantage of crossbred lambs at the level of 8–25% in growth performance compared to purebred animals. This is explained by the

manifestation of heterosis in both maternal and direct effects, which is especially important in intensive industrial sheep production systems.

Researchers pay particular attention to comparisons between purebred, crossbred, and interbreed offspring, as heterosis effects in sheep are especially pronounced due to the high genetic variability among sheep breeds [10, 11, 12].

It has been established that genetically more productive crossbreds better realize their growth potential under intensive production systems, whereas purebred animals show better adaptation to extensive conditions.

Thus, contemporary scientific literature convincingly demonstrates that the origin of young animals is a key factor determining live weight formation and growth intensity in sheep. The greatest effect is achieved through crossbreeding and optimization of maternal–paternal genetic combinations. A promising direction is the integration of genetic, technological, and digital approaches to improve the accuracy of growth assessment**.**

Despite a considerable volume of research, several aspects in sheep production remain insufficiently studied: comprehensive analysis of lamb growth of different origins under identical conditions; stability of heterosis expression across generations; interaction between “breed × housing system × growth intensity”; long-term effectiveness of different crossbreeding schemes.

Thus, the analysis of contemporary scientific publications, monographs, and reports demonstrates that the investigated problem is multifaceted and actively developing in the context of modern agricultural science. The literature review shows that most studies focus on productive traits, adaptive potential of animals, and the influence of housing conditions on physiological status and welfare.

Materials and Methods of Research. The study was conducted under the conditions of the farm enterprise “Sheyko” in Kyiv region on Dorper sheep (D) and crossbred animals with different proportions of Merinolandschaf (Ml) and Romanov (R) blood. The experiment was carried out in two stages.

At the first stage, three groups of ewes were formed: purebred Dorper sheep constituted the control group; Dorper × Romanov crossbreds (½D × ½R) formed the first experimental group; and Merinolandschaf × Romanov crossbreds (½Ml × ½R) formed the second experimental group. These ewes were mated with Dorper rams.

At the second stage, the dynamics of live weight and growth characteristics of the resulting offspring of different origins were evaluated. The control group consisted of purebred Dorper lambs; the first experimental group included two-breed crossbred animals with the genotype ¾D¼R; the second experimental group consisted of three-breed crossbreds ½D¼Ml¼R.

Growth and development patterns were assessed based on live weight dynamics, as well as absolute and relative growth rates of purebred and crossbred animals. Index indicators of growth intensity were used, including absolute, average daily, and relative gains, along with modern modifications based on the concept of Yu.K. Sviechin [13].

To calculate the relative growth rate the formula:

$$\hat{A}\check{I}\acute{A} = \frac{W_1 - W_0}{0{,}5(W_1 + W_0)} \cdot 100,$$

where VP is the relative growth rate, %;

W_0 is the live weight at the beginning of the period, kg;

W_1 is the live weight at the end of the period, kg.

The growth coefficient of the experimental young animals was calculated using the following formula:

$$K_i = \frac{W_4}{W_0}, \quad (1)$$

Based on the assumption that different genotypes may exhibit varying intensity of morphogenetic processes—slow, moderate, and fast—the formation intensity index was determined to study these differences. It is calculated as the difference in relative growth rate (W) between adjacent age periods of ontogenesis.

The intensity of formation was calculated according to the methodology of Yu. K. Sviechin [13]:

$$\Delta t = \frac{W_3 - W_0}{0{,}5(W_3 + W_0)} - \frac{W_6 - W_3}{0{,}5(W_6 + W_3)},$$

where Δt is the intensity of formation;

W_0, W_3, W_6 are the live weights of lambs at birth, 3 months, and 6 months of age, respectively, kg.

The growth uniformity index and growth tension index were determined according to the methodology of V. P. Kovalenko [14]:

$$Ip = \frac{1}{1 + \Delta t} \cdot СДП,$$

where Ir is the growth uniformity index;

ADG is the average daily gain from birth to 6 months of age, kg.

$$Iн = \frac{\Delta t}{ВП} \cdot СДП,$$

where In is the growth tension index;

ADG is the average daily gain from birth to 6 months of age, g;

VP is the relative growth rate from birth to 6 months of age, %.

Biometric data processing was performed using Microsoft Excel software with the application of standard statistical functions.

Research Results. It was established that at birth, the live weight of ram lambs ranged within 3.95–4.0 kg (Table 1). The live weight of ewe lambs at birth showed a slightly different pattern. The highest live weight was observed in the crossbreds of the second experimental group, amounting to 3.95 kg, which exceeded the indicators of the other groups by 10.9% and 12.2%, respectively.

The best live weight performance at 2 months of age was observed in purebred Dorper ram lambs of the control group (21.2 kg), which exceeded crossbred animals by 8.1% and 3.4%. Among ewe lambs, the highest live weight at 2 months was also recorded in purebred animals, while crossbreds showed lower values by 4.5–8.4%. At the same time, three-breed crossbreds outperformed two-breed crossbreds by 3.4%.

At weaning (3 months of age), purebred ram lambs maintained their advantage in live weight over crossbred counterparts by 8.2% and 2.1%. In ewe lambs, the superiority of the control group was 10.0% and 3.1%.

Table 1.

Dynamics of Live Weight of Lambs of Different Origins (kg), ($\bar{X} \pm S_{\bar{x}}$)

Age, months	Genotype					
	n	D	n	¾D ¼R	n	½D ¼Ml ¼R
ram lambs						
at birth	23	4,0±0,21	36	3,95±0,18	28	4,0±0,25
2	21	21,2±0,72	33	19,6±1,09	26	20,5±1,14
3	21	29,1±0,96	31	26,9±1,51	25	28,5±1,48
4	20	33,4±0,92	31	30,1±1,23*	24	32,8±1,24
6	20	37,8±1,21	30	34,6±1,33	23	36,9±1,18
ewe lambs						
at birth	21	3,52±0,19	38	3,56±0,22	30	3,95±0,20
2	20	19,3±0,57	35	17,8±0,81	27	18,4±0,91
3	19	26,5±1,12	33	24,1±1,03	26	25,7±0,97
4	18	30,2±0,87	31	27,9±0,90	24	29,1±1,02
6	17	33,7±1,17	30	30,9±1,16	24	32,7±1,27

Note: significance of differences compared to group D.
** P>0,95; ** P>0,99; *** P>0,999.*

By 6 months of age, purebred ram lambs still maintained a higher live weight compared to crossbreds, with differences of 9.2% and 2.5%. At the same time, among crossbred ram lambs, three-breed animals showed superiority over two-breed counterparts. A similar pattern was observed in ewe lambs, where differences between purebred and crossbred animals reached 9.1% and 3.1%. It should be noted that throughout all observation periods, both ram and ewe lambs showed a tendency toward more intensive live weight gain in purebred Dorper animals.

Sexual dimorphism in the experimental young stock was analyzed. Dorper ram lambs exceeded ewe lambs at birth by 13.6%. In subsequent periods, this difference decreased and ranged from 9.8% to 12.2% (P > 0.95). In the first experimental group, this difference ranged from 7.9% to 11.9%. Ram lambs of the second experimental group exceeded ewe lambs by 1.3–12.8%, and at 4 and 6 months of age the differences were statistically significant.

Average daily, relative, and absolute gains, as well as growth coefficients from birth to 6 months of age, were determined based on live weight indicators. The highest average daily gain from birth to 3 months of age was observed in Dorper ram lambs (0.278 kg), which was 2.2–8.6% higher compared to crossbred animals (Table 2). A similar advantage of purebred ram lambs was recorded for absolute and relative growth

rates. It should be noted that three-breed crossbreds of the second experimental group exceeded their counterparts from the first experimental group in average daily gain by 6.2% and in absolute gain by 7.0%.

From 3 to 6 months of age, the pattern remained largely unchanged, with the best performance observed in the control group ram lambs. Their average daily gain was 0.096 kg, while crossbred animals showed values of 0.087 kg and 0.092 kg, respectively. The relative growth rate during this period ranged from 25.1% to 26.0%, with an advantage observed in purebred animals.

Table 2.

Body Weight Gains of Ram Lambs from Birth to 6 Months of Age, ($\bar{X} \pm S_{\bar{X}}$)

Indicator	Genotype		
	D	¾D ¼R	½D ¼Ml ¼R
From birth to 3 months of age			
Average daily gain, kg	0,278±0,01	0,256±0,02	0,272±0,01
Absolute gain, kg	25,2±0,64	23,0±0,93	24,6±0,88
Relative gain, %	151,7	148,8	150,7
Growth coefficient	7,27	6,81	7,13
From 3 to 6 months of age			
Average daily gain, kg	0,096±0,01	0,087±0,01	0,092±0,01
Absolute gain, kg	8,6±0,74	7,7±0,69*	8,4±0,54
Relative gain, %	26,0	25,1	25,7
Growth coefficient	1,3	1,28	1,29
From birth to 6 months of age			
Average daily gain, kg	0,189±0,01	0,172±0,01	0,184±0,01
Absolute gain, kg	33,6±1,12	30,7±1,35	32,9±1,24
Relative gain, %	161,7	159,0	160,9
Growth coefficient	9,45	8,75	9,23

Overall, from birth to 6 months of age, the average daily gain of Dorper ram lambs (0.189 kg) was higher by 9.9% and 2.7% compared to crossbred animals of the experimental groups. Absolute gain over this period ranged from 30.7 to 32.9 kg in crossbred ram lambs and reached 33.6 kg in purebred animals. Regarding relative growth rate, no significant differences were observed among the studied animals. The growth coefficient from birth to 6 months of age ranged from 8.75 to 9.45, with a superiority of purebred animals.

In ewe lambs, the average daily gain from birth to 3 months ranged from 0.228 to 0.257 kg (Table 3). Purebred Dorper animals exceeded two-breed crossbreds of the first experimental group by 12.7% ($P > 0.95$), and three-breed crossbreds by 5.3%. During the period from 3 to 6 months of age, the trend of higher values in purebred Dorper ewe lambs compared to experimental groups persisted; however, the difference decreased to 2.6% and 5.2%.

Overall, from birth to 6 months of age, the highest average daily gain was observed in ewe lambs of the control group – 0.166 kg, which was 8.5% higher than in

crossbreds of the first experimental group and 4.4% higher than in the second experimental group. Purebred animals also showed better performance in terms of absolute and relative gains, as well as growth coefficient over the entire experimental period. It should be noted that no significant difference was found between crossbred ewe lambs in relative growth rate – 158.7% and 156.9%, respectively – and in growth coefficient – 8.68 and 8.23.

Table 3

Body Weight Gains of Ewe Lambs from Birth to 6 Months of Age, ($\bar{X} \pm S_{\bar{x}}$)

Indicator	Genotype		
	D	¾D ¼R	½D ¼Ml ¼R
From birth to 3 months of age			
Average daily gain, kg	0,257±0,01	0,228±0,01*	0,244±0,01
Absolute gain, kg	22,8±0,67	20,6±0,78*	21,7±0,77
Relative gain, %	153,1	148,5	146,8
Growth coefficient	7,52	6,76	6,51
From 3 to 6 months of age			
Average daily gain, kg	0,080±0,01	0,076±0,01	0,078±0,01
Absolute gain, kg	7,2±0,53	6,8±0,47	7,1±0,65
Relative gain, %	23,9	24,7	24,0
Growth coefficient	1,27	1,28	1,27
From birth to 6 months of age			
Average daily gain, kg	0,166±0,01	0,153±0,01	0,159±0,01
Absolute gain, kg	30,1±0,97	27,3±1,08	28,9±1,14
Relative gain, %	162,2	158,7	156,9
Growth coefficient	9,57	8,68	8,23

The indicators of formation intensity in ram lambs from birth to 4 months of age were higher in purebred Dorper animals and amounted to 1.572%, whereas in crossbreds they ranged from 1.536 to 1.565% (Table 4). The advantage of AT × M ram lambs was also maintained when analyzing the period from birth to 6 months of age - 1.256% versus 1.237–1.251% in contemporaries of the experimental groups.

Table 4

Growth intensity parameters of young animals of different genotypes ($\bar{X} \pm S_{\bar{x}}$)

Indicator	Age, months	Genotype		
		D	¾D ¼R	½D ¼Ml ¼R
ram lambs				
Formation intensity, % (Δt)	0-2-4	1,572±0,06	1,536±0,07	1,565±0,08
	0-3-6	1,256±0,07	1,237±0,08	1,251±0,06
Growth uniformity index (Ip)	0-2-4	0,128±0,01	0,114±0,01	0,128±0,01
	0-3-6	0,083±0,01	0,076±0,01	0,081±0,00
Growth tension index (In)	0-2-4	0,143±0,06	0,129±0,04	0,136±0,05

	0-3-6	0,146±0,01	0,132±0,00	0,142±0,01
ewe lambs				
Formation intensity, % (Δt)	0-2-4	1,582±0,07	1,547±0,06	1,522±0,07
	0-3-6	0,755±0,05	0,722±0,04	0,808±0,04
Growth uniformity index (Ip)	0-2-4	0,115±0,00	0,107±0,01	0,114±0,01
	0-3-6	0,073±0,00	0,068±0,01	0,072±0,00
Growth tension index (In)	0-2-4	0,133±0,07	0,117±0,07	0,116±0,08
	0-3-6	0,134±0,01	0,119±0,01	0,125±0,01

Growth uniformity index is highest in three-breed crossbreds and purebred animals, reaching 1.128. During the period up to 6 months, the highest value in the control group was 0.083. Purebred ram lambs also showed better growth tension index values—1.143 at 4 months and 1.146 at 6 months.

In ewe lambs, overall growth intensity was comparable to that of ram lambs. However, some specific features were observed. The growth uniformity index at 4 months in Dorper and second experimental group animals was comparable, amounting to 0.115 and 0.114, respectively. A similar pattern was observed for the growth tension index in crossbred ewe lambs over this period, which was 0.117 and 0.116.

Conclusions. It was established that purebred Dorper sheep (control group) consistently demonstrate a higher level of growth intensity and biological conversion of nutrients into productive body mass throughout the entire experimental period. Initial live weight at birth (4.0 kg in ram lambs and 3.52 kg in ewe lambs) indicates a high level of prenatal development and genetically determined precocity of the breed. During subsequent ontogenesis, Dorper sheep ensure consistently higher realization of growth potential, especially during the critical phase of meat productivity formation (2–4 months), when the main muscle mass is formed.

Maximum average daily gains (0.278 kg during 0–3 months) and the highest absolute gains over the entire period (33.6 kg during 0–6 months) confirm that Dorper sheep are characterized by genetically determined high somatic growth intensity, efficient feed energy conversion, and early attainment of marketable condition. This allows the breed to be considered a reference for intensive meat sheep production systems.

Crossbreds of the first experimental group (¾D ¼R) showed the lowest level of growth potential realization among the studied variants. At all ontogenetic stages, they consistently lagged behind purebred animals in live weight (by up to 8.2–9.2% in ram lambs and up to 9.1% in ewe lambs), average daily gains, and growth coefficients. This dynamics indicates an unstable or partially suppressed heterosis effect, which may be caused by genetic disharmony of the parental breeds, insufficient selection uniformity, or differences in maturation rates of growth systems.

Crossbreds of the second experimental group (three-breed ½D ¼Ml ¼R) occupy an intermediate but biologically more stable position. They demonstrate a consistent advantage over two-breed crossbreds in key growth indicators (average daily gains higher by 3.4–6.2%, absolute gains by up to 7.0%), indicating an enhanced effect of

combined hybridization and partial stabilization of polygenic growth traits. However, their performance remains lower than that of purebred Dorper sheep, indicating incomplete realization of heterosis potential and the presence of genetic limitations in interbreed interactions.

The integrated assessment of growth parameters (formation intensity, growth uniformity index, and growth tension index) indicates that purebred Dorper sheep exhibit the most balanced growth type, characterized by high intensity and uniform development. This reflects physiological harmony and minimal energy losses for adaptive processes. Crossbred animals demonstrate a more variable growth dynamic, reflecting instability in the genetic expression of productive traits in interbreed combinations.

Thus, the results of the study clearly demonstrate that the Dorper breed is a leading genotype in terms of precocity, growth intensity, and meat productivity, ensuring maximum realization of genetic potential in the early postnatal period. Three-breed crossbreeding is characterized by increased stability of growth traits and may be considered a technologically feasible option under production conditions, whereas two-breed crossbreds show the lowest efficiency in realizing productive potential.

Further research will focus on a comprehensive evaluation of meat productivity in animals of different genotypes, including carcass traits and morphological structure of the carcass.

References

1. Deribe, B., Tesema, Z., Lakew, M. (2023). Growth performance of Dorper crossbred sheep. *Translational Animal Science*, 7(1) https://doi.org/10.1093/tas/txad034
2. Kijas J.W., Lenstra, J.A. (2012). Genetic diversity in sheep and implications for production traits. *Animal Genetics*, 43. 1–10. https://doi.org/10.1111/j.1365-2052.2011.02236.x
3. Hoffman, L.C. (2000). Meat quality attributes of lamb: a review. *Meat Science,* 56. 375–389. https://doi.org/10.1016/S0309-1740%2800%2900031-1
4. Vatankhah, M., Talebi, J. (2012). Genetic evaluation of growth traits in sheep. *Animal Science Journal*, 83. 611–617. https://doi.org/10.1111/j.1740-0929.2012.00996.x
5. Notter, D.R. (1999). Genetic improvement of meat sheep. *Small Ruminant Research,* 34. 83–91. https://doi.org/10.1016/S0921-4488(99)00035-0
6. Safari, E., Fogarty, N.M., Gilmour, A.R. (2005). A review of genetic parameter estimates for wool, growth and carcass traits of sheep. *Livestock Production Science,* 92. 271–289. https://doi.org/10.1016/j.livprodsci.2004.09.003
7. Cottle, D.J. (2010). International Sheep and Wool Handbook. Nottingham University Press, 450 P.
8. Milne, C. (2014). Growth and development of meat sheep breeds. *Animal Production Science*, 54. 847–855. https://doi.org/10.1071/AN13312
9. Wood, J.D., Enser, M., Fisher, A.V., Nute, G.R. (2008). Fat deposition, fatty acid composition and meat quality: A review. *Meat Science,* 78(4):343-58. DOI:10.1016/j.meatsci.2007.07.019
10. Kosgey, I.S., Baker, R.L., Udo, H.M.J. (2006). Small ruminant production in developing countries. *Small Ruminant Research,* 58. 39–60. https://doi.org/10.1016/j.smallrumres.2005.05.009
11. Alam, M.R., Lee, J.H. (2013). Growth performance of crossbred lambs. *Asian-Australasian Journal of Animal Sciences,* 26. 123–130.
12. Taylor, C., Murray, J. 2004. Breed effects on lamb growth and carcass traits. *Animal Science,* 78. 135–144.
13. Svechin, Yu. K. (1985). Prognozirovanie produktivnosti zhivotnykh v rannem vozraste. *Vestnik sel'skokhozyaystvennoy nauki – Herald of Agrarian Science*, 4, 103–108 [in Russian].

14. Kovalenko, V. P., & Bolelaya, S. Yu. (1998). Selektsionnaya model' prognozirovaniya myasnoy produktivnosti ptitsy. *Cytology and Genetics*, 32 (4), 55-59 [in Russian].

Володимир Шейко,
аспірант, Одеський державний аграрний університет, м. Одеса, Україна
ORCID ID: 0009-0008-5208-8821
e-mail: attis.ukraine@gmail.com

ДИНАМІКА ЖИВОЇ МАСИ ТА ПРИРОСТІВ МОЛОДНЯКУ РІЗНОГО ПОХОДЖЕННЯ

Анотація.

У статті висвітлено актуальність дослідження динаміки живої маси та швидкості росту молодняку овець різного генетичного походження в умовах сучасного розвитку м'ясного вівчарства. Встановлено, що інтенсивність росту молодняку є одним із ключових показників скороспілості, м'ясної продуктивності та ефективності селекційно-племінної роботи. Актуальність дослідження зумовлена необхідністю підвищення продуктивності овець шляхом використання схрещування та добору генотипів із високим потенціалом росту і розвитку. Метою дослідження було вивчення особливостей росту, розвитку та формування приростів живої маси у молодняку різного генетичного походження. Дослідження проведено в умовах фермерського господарства «Шейко» Київської області із використанням чистопородних овець породи дорпер та помісного молодняку різних генотипів. Показники живої маси оцінювали у різні вікові періоди, а також визначали абсолютні, середньодобові та відносні прирости живої маси, коефіцієнти росту та індекси розвитку. Встановлено, що чистопородний молодняк породи дорпер характеризувався вищою живою масою та середньодобовими приростами порівняно з помісними ровесниками. Водночас трипородні помісі демонстрували кращі показники росту порівняно з двопородними тваринами, що свідчить про позитивний ефект схрещування у формуванні продуктивних ознак. Найбільш інтенсивний ріст спостерігався у підсисний період від народження до 3-місячного віку. Практичне значення дослідження полягає у можливості використання отриманих результатів для удосконалення селекційних програм, підвищення м'ясної продуктивності овець та обґрунтування ефективних схем схрещування у вівчарстві.

Ключові слова: *ягнята, генотип, жива маса, помісі, середньодобовий приріст, ріст і розвиток, схрещування, м'ясна продуктивність.*

Стаття надійшла до редакції 20.04.2026
Стаття пройшла рецензування 07.05.2026
Стаття опублікована 29.05.2026