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UKRAINIAN WHITE-HEADED BREED OF DAIRY CATTLE AS A UNIT OF BIODIVERSITY CONSERVATION

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Ukraine, as a country with developed dairy cattle breeding, has come a long way in the development of the industry. This is especially noticeable in the breeding of agricultural animals, where the process of breed formation has gone from the methodology of breed creation proposed by M.F. Ivanov to the conceptualization of breed theory in modern realities. Over time, in the world and in our country in particular, among scientists, the necessary issue of preserving the genetic resources of animals has arisen. The Ukrainian White-Headed breed of dairy cattle has always been of interest to scientists for its specific values (to date, there are no breeding herds of this breed).

According to the State Breeding Registry, the Ukrainian White-Headed breed was bred only in one farm when the owners changed, until 2012, it was the OSAC "Antoninske", and since 2013 – the LLC "Podilsky Hospodar" of the Krasyliv district of the Khmelnytskyi region. Our research has established the stability of quantitative indicators of the herd until 2010, an increase in the total population to 924 heads in 2012 and a decrease to the level of 663 heads in 2020.

The assessment of the main breeding trait in dairy cattle breeding has showed positive dynamics of increasing milk yield and fat content in milk. Although the average weight of the Ukrainian White-Headed breed is low and is 4019 kg, growth has been noted from 3005 kg in 2002 to 5084 kg in 2020. The milk productivity of the estimated first-calf heifers is on average 3692 kg with a fat content of 3.83% and its amount is 140 kg, and full-aged cows are 4314 kg, 3.79%, 163.3 kg, respectively. For different forms of ownership, a significant advantage of the cows of LLC "Podilsky Hospodar" compared to OSAC "Antoninske" was noted.

Live weight of repair heifers at the age of 6 months, 12 months and 18 months was 154 kg, 246 kg, 335 kg, respectively. This led to low average daily gains, for the entire growing period at the level of 496.2 g.

The average values, which belong to the reproductive indicators, remain stably high. Namely, the age of the heifers at the first insemination (556 days), as well as the length of the service period (88 days). As for the sale of breeding material, only 50 heads were purchased over the 16-year period, including 14 bulls.

Key words: *Ukrainian White-Headed, breed, reproduction, productivity, number, dynamics.*

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Introduction. Cross-border breeds are systematically evaluated for productive, reproductive and exterior characteristics. In local breeds, the main selection characteristics are studied, but it is necessary to provide for constant monitoring of that group of indicators that are inherent in local breeds (adaptability to the conditions of the breeding zone, resistance, strength of the constitution, etc.).

Compared to aboriginal breeds, highly productive breeds constantly prevail in terms of number of heads, which leads to a decrease in the diversity of animals, and accordingly, there is a constant need to preserve local breeds. Among the threats and risks to the preservation of breeding populations, the Commission on Animal Genetic Resources at the FAO proposed defined convenient statuses of populations. In addition, the use of cryotechnologies for the creation and replenishment of genetic banks serves as additional elements in the biodiversity conservation system (Huziev, 2010; Kovtun et al., 2015; Sydorenko, 2014).

The Ukrainian White-Headed domestic breed of cattle went through stages of use, from the formation of a genealogical structure and widespread distribution in the 50s and 70s in the territories of Vinnytsia, Kyiv, Khmelnytskyi and Zhytomyr regions to the existence of one breeding herd in Khmelnytskyi region for two decades. This breed, with mediocre indicators of economically useful traits, had unique features, due to which it was previously widely used in production (Pochukalin et al., 2022; Pochukalin & Pryima, 2022; Voitenko & Vyshnevskyi, 2016; Lagyka et al., 2019, 2023).

Various studies have established the level of productive, reproducible features (Pochukalin et al., 2023; Rieznykova, 2016; Rieznykova et al., 2018; Shuplyk & Kasprov, 2016; Yefimenko et al., 2003, 2008). Since the breed has been a closed population for a long time, a number of authors have evaluated cows using inbreeding and crossbreeding (Voitenko & Sydorenko, 2020, 2021). Given the breeding

features of the breed, scientists constantly need to monitor the genetic structure of the population (Burkat et al., 2008; Dyman et al., 2000; Kopylova et al., 2011, 2013; Podoba, 2013; Starodub, 2020). A subsidy for the Ukrainian White-Headed breed was methodically calculated for the preservation of genetic resources (taking into account the targeted use of budget funds) (Sharan et al., 2012). Summarizing the above, we consider it relevant to monitor the breeding traits of the Ukrainian White-Headed in order to preserve the gene pool.

The purpose of the study was to establish the level of productive (milk yield), reproductive and growth (live weight) traits, as well as the dynamics of the number of females livestock.

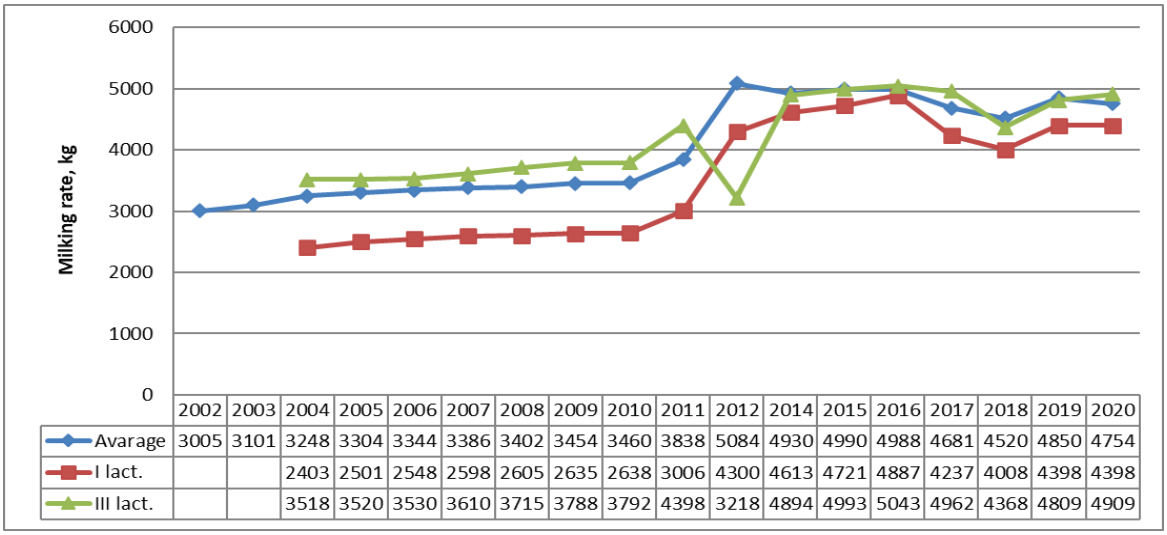
Materials and Methods. To realize the set goal, we used the data of the State Register of Subjects of Breed Business in Livestock Breeding for the period 2002...2020. In addition to the average values of economically useful traits, we compared one herd under different forms of ownership, OSAC "Antoninske" for 11 years (2002 ... 2012) and LLC "Podilsky Hospodar" for 7 years (2014 ... 2020). The average fertility was determined according to the data of the annual report, and the milk productivity of the evaluated herd was studied for 305 days of the last completed lactation (first and third). Growth intensity of breeding young was determined by live weight at the age of 6 months, 12 months, 18 months. As an additional evaluation factor, we used the indicator of average daily growth in the periods: 6 months – 12 months, 12 months – 18 months, and 6 months – 18 months. Generalization of average values was carried out using methods of mathematical statistics. Analysis and generalization were the main methods in the research.

Results. During the studied period, the Ukrainian White-Hheaded breed did not become widespread, but was stably kept in only the one farm under different owners. If until 2013, the farm was called OSAC "Antoninske", then after LLC "Podilsky Hospodar" of Krasyliv district of Khmelnytskyi region. The average number of breeding animals from 2002 to 2020 in the farm was 652 heads, including 240 cows, 68 heifers and 152 heifers older than 1 year. Among other things, we noted the stability of keeping breeding animals from 2002 to 2010 – 529 heads ... 535 heads, with an increase over two years to 924 heads and a gradual decline to 663 heads in 2020. The share of age groups of the female's livestock on average had the following values: cows – 36% (the minimum was 30% in 2002, and the maximum was 49% in 2018); heifers old – 10% (min 4% in 2002 and max 22% in 2012); heifers older than 1 year – 24% (min 9% in 2012 and max 34% in 2020). Regarding forms of ownership, the average number of cattle in OSAC "Antoninske" was 593, including 202 cows, and in LLC "Podilsky Hospodar", respectively, 744 cattle, including 300 cows.

The indicator of milk productivity of cows of the Ukrainian White-Headed breed shows the positive dynamics of increasing milk yield. The average milk yield of cows for the studied period was 4019 kg with an amplitude from 3005 kg in 2002 to 5084 kg in 2012 (fig. 1). It is interesting to note that milk yield was at the level of 3 tons between 2002 and 2011, then 2012 (which was the peak year for milk productivity) and further until 2020 milk yield did not fall below 4 tons per cow.

The average values of productivity of the first-calf heifers are 3692 kg of milk with a fat content of 3.83% and the amount of milk fat is 140 kg. Over the 16-year period, milk fat content increased slightly from 3.62% in 2004 to 3.80% in 2017, followed by a slight decline (3.71%). A comparison of cows for the first lactation in farms of different forms of ownership shows a significant advantage of LLC "Podilsky Hospodar", from which the milk yield for 305 days of lactation was 4497 kg with a fat content of 3.77%, which is 1619 kg more than the indicators of OSAC "Antoninske".

The average (2002 to 2020) milk productivity of adult cows exceeds first-calf heifers by 15% in terms of milk yield and 0.04% in terms of protein content in milk. In addition, the opposite situation is observed in terms of protein content in the milk of first-calf heifers. If during 2004 ... 2010 the fat content was high and ranged from 3.80% to 3.84%, then in 2011 ... 2012 the fat content decreased to 3.76% ... 3.77%, then increased to in 2017 – 3.85% and subsequently



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2014	2015	2016	2017	2018	2019	2020
Avarage	3005	3101	3248	3304	3344	3386	3402	3454	3460	3838	5084	4930	4990	4988	4681	4520	4850	4754
I lact.			2403	2501	2548	2598	2605	2635	2638	3006	4300	4613	4721	4887	4237	4008	4398	4398
III lact.			3518	3520	3530	3610	3715	3788	3792	4398	3218	4894	4993	5043	4962	4368	4809	4909

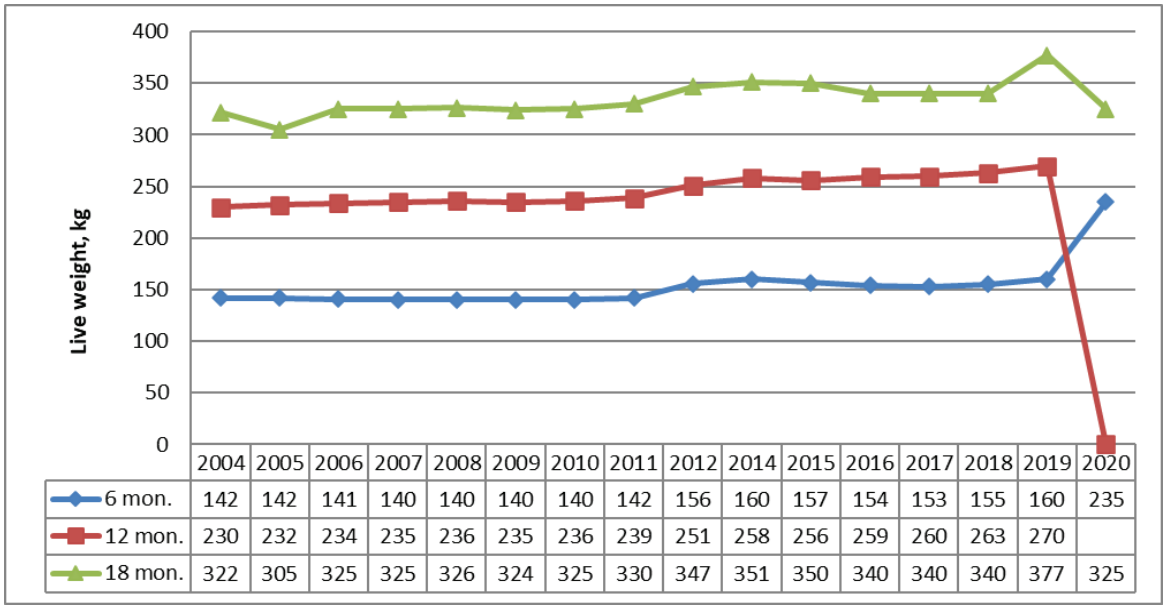
Fig. 1. Fertility of white-headed Ukrainian cows depending on lactations in time dynamics

decreased to 3.68%. Also, it should be noted that the high fat content in cows' milk is characteristic of OSAC "Antoninske" with an average value of 3.81% (milk yield 3727 kg), while at LLC "Podilsky Hospodar" this indicator was 3.77% (milk yield 4849 kg).

An integral component of the selection process is the intensity of growing young animals. The average live weight of breeding heifers during the research period at the age of 6 months, 12 months and 18 months is 154 kg, 246 kg and 335 kg respectively. The indicated indicators were obtained for the following average daily gains: from 6 months to 12 months – 504 g, from 12 months to 18 months – 488 g, for the entire growing period from 6 months to 18 months – 496 g. In general, we noted positive dynamics of live mass increase (fig. 2). This is confirmed by the average values of live weight in farms of different forms of ownership. If at OSAC "Antoninske" the indicated indicators were 142.6 kg, 236.4 kg, 325.4 kg, then at the breeding heifers of LLC "Podilsky Hospodar" 167.7 kg (+25.2 kg), 261.0 kg (+ 24.6 kg), 346.1 kg (+20.7 kg), respectively. The intensity of raising bulls was higher compared to heifers (sexual dimorphism) and had an average live weight of 165 kg in 6 months, and 312 kg in 12 months for the period 2004 to 2016.

It is known that in order to assess the physiological load of the body during productive use, it is necessary to monitor reproduction. Among the important indicators, it should be noted, the age and live weight of heifers at the first insemination. The indicated indicators in the farm have a certain stability, since the average age of the first insemination for the studied period is 556 days (extreme values from 455 days to 582 days) for a live weight of 333 kg (from 316 kg to 363 kg). In addition to the above indicators, the length of the service period (average value 88 days, amplitude 68 ... 144 days), as well as the number of calves per 100 cows (89%, 86 ... 92%) are also important. Among the main elements of conducting selection and breeding work, special attention is paid to the availability and implementation of breeding material with high genetic potential. It was established that 50 goals were realized during the research period, including 14 bulls, with the available number of 336 goals.

Conclusions. The Ukrainian White-Headed breed of cattle was concentrated in one breeding plant for an 18-year period. During this time, the owners of breeding animals changed until 2012: OSAC "Antoninske", and after that LLC "Podilsky Hospodar" of Krasyliv district, Khmelnytskyi region. The average number was 652 heads, including 240 cows. The milk productivity of first-calf heifers and adult cows of the last completed lactation was as follows: milk yield 3691 kg with a fat content of 3.75%, the amount of milk fat 141 kg and 4314 kg – 3.79% – 163.3 kg. A low level of breeding heifers was established, which, depending on the period, has average daily gains of 488g ... 504 g. It was also established that the indicators of reproductive capacity have high values, namely the age of first insemination and the length of the service period.



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2014	2015	2016	2017	2018	2019	2020
6 mon.	142	142	141	140	140	140	140	142	156	160	157	154	153	155	160	235
12 mon.	230	232	234	235	236	235	236	239	251	258	256	259	260	263	270	
18 mon.	322	305	325	325	326	324	325	330	347	351	350	340	340	340	377	325

Fig 2. Live weight of breeding heifers in time dynamics

References:

1. Burkat, V. P., Podoba, B. Ye., Huziev, I. V., & Bodriashova, K. V. (2008). Mikroevoliutsiini protsesy v populiatsiiakh silskohospodarskykh tvaryn [Microevolutionary processes in agricultural animal populations]. *Faktory eksperymentalnoi evoliutsii orhanizmiv*, 4, 3–7 [in Ukrainian].

2. Dyman, T. M., Tarasiuk, S. I,, & Hlazko, V. I. (2000). Porivniannia henofondiv lokalnykh porid velykoi rohatoi khudoby Ukrainy za riadom henetyko-biokhimichnykh system [Comparison of gene pools of local breeds of cattle of Ukraine according to a number of genetic and biochemical systems]. *Naukovyi visnyk Natsionalnoho ahrarnoho universytetu*, 21, 58–60 [in Ukrainian].

3. Huziev, I. V. (2010). Deiaki metodychni aspekty klasyfikatsii, identyfikatsii i analizu zahroz zberezhenniu henetychnykh resursiv tvaryn [Some methodological aspects of classification, identification and analysis of threats to the preservation of genetic resources of animals] Metodolohiia naukovykh doslidzhen z pytan selektsii, henetyky ta biotekhnolohii u tvarynnytstvi [Methodology of scientific research on issues of breeding, genetics and biotechnology in animal husbandry] materialy nauk.-teor. konf., prysviach.. pamiati akademika V.P.Burkata (50–51). Chubynske. [In Ukrainian].

4. Huziev, I. V. (2010). Mizhnarodni metodychni pidkhody do otsinky realnoho statusu ryzyku poridnoi (henofondovoi) populiatsii [International methodical approaches to assessing the real risk status of the pedigree (gene pool) population] Metodolohiia naukovykh doslidzhen z pytan selektsii, henetyky ta biotekhnolohii u tvarynnytstvi [Methodology of scientific research on issues of breeding, genetics and biotechnology in animal husbandry] materialy nauk.-teor. konf., prysviach.. pamiati akademika V.P.Burkata (52–53). Chubynske. [In Ukrainian].

5. Kopylova, K. V., Podoba, Yu. V., Pocherniaiev, K. F., Podoba, L. V., & Rossokha, V. I. (2011). Vykorystannia mitokhondrialnoi DNK u molekuliarno-henetychnomu analizi pokhodzhennia tvaryn velykoi rohatoi khudoby [The use of mitochondrial DNA in the molecular genetic analysis of the origin of cattle]. *Naukovo-tekhnichnyi biuleten IT NAAN*, 105, 79–84 [in Ukrainian].

6. Kopylova, K. V., Shelov, A. V., Berezovskyi, O. V., Kopylov, K. V., & Rossokha, V. I. (2013). Henetychna struktura riznykh porid velykoi rohatoi khudoby za molekuliarno-henetychnymy markeramy [Genetic structure of different breeds of cattle according to molecular genetic markers]. *Naukovo-tekhnichnyi biuleten IT NAAN*, 110, 76-83 [in Ukrainian].

7. Kovtun, S. I., Shcherbak, O. V., Osypchuk, O. S., & Zyuzyn, A. B. (2015). The gene pool preservation of Ukrainian White-Headed breed of cattle by biotechnological approaches. *Rozvedennia i henetyka tvaryn*, 50, 245–251.

8. Ladyka, V. I., Zhukorskyi, O. M., Hrytsyniak, I. I., Kozyr, V. S., Katerynych, O. O., Tsereniuk, O. M., Khmelnychyi, L. M., & Rieznykova, N. L. (2023). Henetychni resursy vitchyznianykh porid silskohospodarskykh tvaryn [Genetic resources of domestic breeds of agricultural animals]. Odesa, Oldi+, 336 [in Ukrainian].

9. Lagyka, V. L., Polupan, Yu. P., Vdovichenko, U. V., Iovenko, V. M., Pavlenko, Yu. M., Skliarenko, Yu. I., Rieznykova, N. L., Pryima, S. V., Fursa, N. M., & Pysarenko, A. V. (2019). Conservation of gene pools of local cattle breeds. Lublin. 167.

10. Pochukalin, A. Ye., & Pryima, S. V. (2022). Selektsiine nadbannia molochnoho skotarstva Ukrainy – ukrainska biloholova poroda [Ukrainian White-Headed breed is a breeding asset of dairy cattle breeding in Ukraine]. Rozvedennia i henetyka tvaryn, 64, 179–200 https://doi.org/10.31073/abg.64.17 [in Ukrainian].

11. Pochukalin, A. Ye., & Pryima, S. V. (2023). Dodatkovyi henofond i henetychnyi rezerv – monitorynh ta otsinka henetychnykh resursiv [Additional gene pool and genetic reserve – monitoring and assessment of genetic resources]. *Visnyk Sumskoho natsionalnoho ahrarnoho universytetu. Seriia : Tvarynnytstvo*, 4(55), 41–48 https://doi.org/10.32782/bsnau.lvst.2023.4.5 [in Ukrainian].

12. Pochukalin, A., Rizun, O., & Pryima, S. (2022). Chronologie der entwicklung der weissköpfigen ukrainischen rinderrasse. *Tavriiskyi naukovyi visnyk. Seriia: Silskohospodarski nauky*. 128, 298–303 https://doi.org/10.32851/2226-0099.2022,128.40

13. Podoba, Yu. V. (2013). Polimorfizm mitokhondrialnoi DNK u tvaryn siroi ukrainskoi ta ukrainskoi biloholovoi porid velykoi rohatoi khudoby [Mitochondrial DNA polymorphism in Ukrainian Gray and Ukrainian White-Headed cattle]. *Visnyk Sumskoho natsionalnoho ahrarnoho universytetu. Seriia Tvarynnytstva*, 7(23), 208–211 [in Ukrainian].

14. Rieznykova, N. L. (2016). Osoblyvosti yakisnoho skladu moloka koriv biloholovoi ukrainskoi porody [Peculiarities of the qualitative composition of milk of Ukrainian White-Headed cows]. *Rozvedennia i henetyka tvaryn*. 51, 290–295 [in Ukrainian].

15. Rieznykova, N. L., Polupan,ºIu.ºP., Denysiuk, O.ºV., Vdovychenko, Iu.ºV., Pysarenko,ºA.ºV., & Fursa,ºN.ºM. (2018). Tryvalist vykorystannia ta vidtvoriuvalna zdatnist tvaryn siroi ta biloholovoi ukrainskykh porid [Duration of use and reproductive capacity of animals of Gray and Ukrainian White-Headed breeds]. *Rozvedennia i henetyka tvaryn*, 56, 162–173 [in Ukrainian].

16. Sharan, P. I., Ruban, S. Yu., Kuzebnyi, S. V., Kruhliak, O. V., & Martyniuk, I. S., Kovalenko, N. M. (2012). Orhanizatsiino-ekonomichnyi i pravovyi mekhanizm zberezhennia henofondu lokalnykh i znykaiuchykh porid tvaryn [Organizational, economic and legal mechanism for preserving the gene pool of local and endangered animal breeds]. *Rozvedennia i henetyka tvaryn*, 46, 118–119 [in Ukrainian].

17. Shuplyk, V. V., & Kasprov, R. V. (2016). Kharakterystyka okremykh selektsiinykh pokaznykiv biloholovoi ukrainskoi porody velykoi rohatoi khudoby [Characteristics of individual breeding indicators of Ukrainian White-Headed breed of cattle]. *Zbirnyk naukovykh prats Podilskoho derzhavnoho ahrarno-tekhnichnoho universytetu*, 24, 1, 230–236 [in Ukrainian].

18. Starodub, L. F. (2020). Osoblyvosti kariotypu koriv biloholovoi ukrainskoi porody [Features of the karyotype of Ukrainian White-Headed cows]. *Naukovo-tekhnichnyi biuleten IT NAAN*, 124, 177–185 https://doi.org/10.32900/2312-8402-2020-124-177–185 [in Ukrainian].

19. Sydorenko, O. V. (2014). Kharakterystyka henetychnoho materialu plidnykiv velykoi rohatoi khudoby, yakyi zberihaietsia u banku henetychnykh resursiv tvaryn IRHT NAAN [Characterization of the genetic material of cattle breeders, which is stored in the bank of animal genetic resources of the IRGT of the National Academy of Sciences]. *Naukovyi visnyk Natsionalnoho universytetu bioresursiv i pryrodokorystuvannia Ukrainy. Seriia Tekhnolohiia vyrobnytstva i pererobky produktsii tvarynnytstva,* 202, 71–77 [in Ukrainian].

20. Voitenko, S. L. & Vyshnevskyi, L. V. (2016). Biloholova ukrainska poroda v istorychnomu aspekti [White-headed Ukrainian breed in historical aspect] *Visnyk Sumskoho natsionalnoho ahrarnoho universytetu. Seriia Tvarynnytstva*, 7(30), 51–57 [in Ukrainian].

21. Voitenko, S. L., & Sydorenko, O. V. (2020). Efektyvnist rozvedennia inbrednoi khudoby biloholovoi ukrainskoi porody [Efficiency of breeding of inbred cattle of Ukrainian White-Headed breed] *Naukovo-tekhnichnyi biuleten IT NAAN*, 124, 232–245. https://doi.org/10.32900/2312-8402-2020-124-232-245 [in Ukrainian].

22. Voitenko, S. L., & Sydorenko, O. V. (2020). Produktyvnist autbrednoi ta inbrednoi khudoby biloholovoi ukrainskoi porody [Productivity of outbred and inbred Ukrainian White-Headed cattle] *Visnyk Sumskoho natsionalnoho ahrarnoho universytetu. Seriia Tvarynnytstva*, 2(41), 33–39 DOI: https://doi.org/10.32845/bsnau.lvst.2020.2.6 [in Ukrainian].
23. Voitenko, S. L., & Sydorenko, O. V. (2021). Biloholova ukrainska za chystoporodnoho rozvedennia ta skhreshchuvannia [Ukrainian White-Headed for purebred breeding and crossbreeding]. *Visnyk Sumskoho natsionalnoho ahrarnoho universytetu. Seriia «Tvarynnytstvo»*, 1(44), 55–62. DOI: https://doi.org/10.32845/bsnau.lvst.2021.1.8 [in Ukrainian].
24. Yefimenko, M. Ya., Podoba, B. Ye., & Zabludovskyi, Ye. Ye. (2003). Osoblyvosti realizatsii henetychnoi informatsii v ontohenezi velykoi rohatoi khudoby [Peculiarities of implementation of genetic information in ontogeny of cattle]. *Naukovo-tekhnichnyi biuleten IT NAAN*, 85, 36–40 [in Ukrainian].
25. Yefimenko, M. Ya., Porkhun, M. H., Chekhivskyi, M. Y., Boiarska, A., V., Bulka, V. M. (2008). Stan zberezhennia henofondu biloholovoi ukrainskoi porody na suchasnomu etapi [The state of preservation of the gene pool of Ukrainian White-Headed breed at the current stage]. *Rozvedennia i henetyka tvaryn*, 42, 82–87 [in Ukrainian].

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Білоголова українська порода молочної худоби як одиниця збереження біорізноманіття

Україна, як країна з розвинутим молочним скотарством пройшла довгий шлях становлення галузі. Особливо, це прослідковується у селекції сільськогосподарських тварин, де процес породоутворення пройшов від методології створення порід запропонованої М. Ф. Івановим до концептуалізації теорії породи у сучасних реаліях. З часом, у світі та нашій країні зокрема, серед вчених постало нагальне питання збереження генетичних ресурсів тварин. Білоголова українська порода великої рогатої худоби молочного напряму продуктивності постійно цікавила (на сьогодні не має племінних стад з розведення зазначеної породи) вчених своїми специфічними цінностями.

За даними Держплемреєстру українську білоголову породу утримували лише у одному господарстві за різних власників, якщо до 2012 року – це ВАСТ «Антонінське», а з 2013 – ТОВ «Подільський господар» Красилівського району Хмельницької області. Аналізом встановлено стабільність кількісних показників стада до 2010 року, підвищенням загального поголів'я до 924 голів у 2012 році і зменшенням до рівня 663 у 2020 році.

Оцінка основної селекційної ознаки у молочному скотарстві засвідчила позитивну динаміку збільшення рівня надою та вмісту жиру в молоці. І хоча середній надій білоголової української породи залишається посереднім 4019 кг відмічений ріст у часі з 3005 кг у 2002 році до 5084 кг у 2020 році. Молочна продуктивність пробонітованих первісток у середньому становить 3691,9 кг зі вмістом жиру 3,83% та його кількістю 140 кг а повновікових відповідно 4313,7 кг, 3,79%, 163,3 кг. За різних форм власності відмічена суттєва перевага корів ТОВ «Подільський господар» порівняно з ПАТ «Антонінське».

Жива маса ремонтних телиць у віці 6 міс., 12 міс. та 18 міс. становила відповідно 154 кг, 246 кг, 335 кг. Це дозволило отримати невисокі середньодобові прирости, за весь період вирощування на рівні 496,2 г.

Стабільно високими залишаються середні значення, які належать до відтворних показників. А саме, вік телиць за першого осіменіння (556 днів), а також тривалість сервіс-періоду (88 днів). Щодо реалізації племінного матеріалу, то за 16-річний період було закуплено лише 50 голів, у тому числі 14 бугайців.

Ключові слова: *білоголова українська, порода, відтворення, продуктивність, чисельність, динаміка.*