

NEW TYPE BOVINE OF BLACK AND WHITE BREED

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Abstract

Within last three decades in Republic Moldova new zonal type of bovines of Black and White breed has been created. Animals of new type are characterized by high genetic potential of dairy production (7 - 9 thousand in kg of milk for lactation). On 53 best farms it is received on 5 - 7 thousand in kg of milk from each cow for a year. The young growth has good parameters of meat production. At intensive cultivation the daily average gain of alive weight has made 900 - 1100 grammes. At slaughter an output of carcass has made more 55%

Key words: cattle, Black Mottled, milk, beef, slaughtering efficiency

INTRODUCTION

The breeds of large horned livestock earlier brought up in Republic of Moldova - red steppe and Simmental had low potential of the dairy efficiency, insufficient fitness to machine milking, did not meet the requirements of industrial conducting dairy cattle breeding. During the period since 1960 for 1974 work on crossing the specified breeds with Jersey race was carried out. At cross-breed cows the maintenance of fat in milk on 0.2-0.3 % has raised, but dairy efficiency remained at a level 3.0 – 3.5 thousand in kg of milk for a year. In this connection the program of creation of new type of dairy cattle has been developed and realized.

Technique of creation of new type of Black and White cattle

For creation of new type of cattle crossing cows of local populations Red of Steppe (RS) and Simmental (S) cows with bulls of Black and White (BW) and Holstein (H) breeds was carried out. With 1971 on 1976 in Republic Moldova 95 bulls - manufacturers have been delivered from Estonia, Ukraine, Moscow, Leningrad and Kaliningrad areas of 22.5 thousand heads of Black and White cattle, including on genealogic structure of 27.5 % of Black and White bulls concerned to a line of Dutch bull Annas Adema 30587. The highest dairy efficiency of mothers (6539-6135 kg)

characterized manufacturers of lines Hiltese Adema 37910, Niko 31652 and Lindberg M-2363. In Republic Moldova bulls of many known lines of Holstein cattle from Germany, Denmark, Great Britain, Bulgaria, Romania, Estonia, Lithuania, Russia, and other countries were delivered. Due to use of bulls Holstein breeds in republic the high genetic potential of dairy efficiency is created. Most the wide circulation was received with line Wes Bac Adiale 1013415.

Stage-by-stage use of bulls of improving breeds was planned. At the first stage of cows Red Steppe and Simmental breeds crossed to bulls of Black and White breed, and received half-breed cows were crossed to bulls Holstein breeds. At the second stage half-breed animals with a high share of genes of improving breeds to breed in it self for fastening desirable attributes. In structure of new type there are two subtypes: „northern”, created on the basis of crossing Simmental cows with bulls of improving breeds and „southern”, created on the basis of crossing Red of Steppe cows with bulls of improving breeds.

Results of creation of new type of cattle

The basic stages of creation of new type of cattle: During 1975-1980 hybrids of the first generation from crossing local populations of cows Red Steppe and

Simmental breeds with bulls of black - motley breed have been received. Their biological features and productive qualities are investigated. Per 1981-1985 intermediate genotypes have been received and approved. For 1986-1990 carried out selection of animals of desirable type with an optimum share of genes of improving breeds, studying of their morfo-productive features, a bookmark of genealogic lines of new type of cattle. Per 1991-2008 carried out selection and duplication of animals of desirable type, studying of genetic structure and approbation of new type of Black and White breed.

Researches of cross-breed cows with a different share of genes of improving breeds have shown, that increase of a share of genes

Holstein breeds from 50 % up to 75 % and from 75 % up to 87.5 % at the some people cross-breed cows was observed easing the constitution. It has allowed to draw a conclusion what to conduct escalating share of genes on Holstein breed to over 75-87.5 % of a share of genes at animals of new type is inexpedient.

For "northern" zone subtype the variant of crossing with use cross-breed bulls that will allow to receive animal genes from shares Holstein breeds at a level of 75-81.2 % with the subsequent cultivation "in itself" is optimum. For a "southern" zone subtype it is desirable to use the circuit of crossing as a result of which the share of genes Holstein breeds at animals will make 62.5-75.0 %.

Efficiency of cows for 305 days for first lactation

Share of genes Holstein breed, %	n	Dairy productivity		± at standard of race	
		Milk M ± m, kg	Fat M ± m, %	milk, kg	fat, %
Subtip "northern"					
25-50	75	4249±128.2	3.55±0.010	+ 449	-0.05
51-75	604	5145± 38.4	3.58±0.040	+1345	-0.02
76-87,5	1302	5224± 26.4	3.58±0.002	+1424	-0.02
90 and +	342	4578± 37.7	3.59±0.004	+ 778	-0.10
Media:	2323	5077± 20.0	3.58±0.002	+1277	-0.02
Subtip "southern"					
25-50	273	4862± 72.6	3.69±0.010	+1262	+0,09
51-75	850	4634± 58.9	3.71±0.010	+1034	+0,11
76-87,5	487	3938± 58.7	3.74±0.007	+ 338	+0,14
90 and+	68	3423± 81.9	3.75±0.018	- 177	+0,15
Media:	1678	4420± 37.8	3.2±0.006	+ 820	+0,12

The studies of the mongrels with share miscellaneous gene perfecting sorts have shown that increasing of the share gene Holstein race with 50 % before 75 % and with 75 % before 87,5 % weakening existed beside some with high half bred of the mongrels to constitutions. This has allowed to draw a conclusion about that to lead increasing the bloodies to race over 75-87.5 % share gene beside animal of the new type inadvisable.

Optimum for "north" zonal subtype is a variant of the crossbreeding with use cross-

breed that will allow to get the animal with share gene Holstein of the race at a rate of 75-81,2% with the following breeding "in itself". For "south" zonal subtype advisable to use the scheme of the crossbreeding, as a result which share gene Holstein of the race beside animal will form 62.5-75.0%.

CONCLUSION

As a result called on studies is created new inside the breed type Black and White race for breeding in Republic Moldova. The dairy productivity cortex on the first lactation

forms from 4420 ± 37.8 kg before 5077 ± 20.0 kg milk with contents of fat 3,58 - 3,72 %. Cows of the new type have milk productivity on 820-1277 kg above standard of the race.

The cows of the south subtype exceed the standard of fat in milk on 0.12%, cows of the south subtype had a contents of fat on 0,02% below standard. The velocity of the milking has at the average formed 1.80 l at minute.

In new type there are 5 genealogical lines oxen. It is determined genetic feature to new population animal type.

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