

Dairy Productivity of the New Schwitz Cow Family

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Abstract: As a result of many years of scientific and practical work in the breeding experimental herd, new families of Schwickie breeds have been bred. Cows of new families in three generations are characterized by high milk yield, fatty milk, pronounced milk type, longevity and other valuable breeding characteristics. Livestock breeding, taking into account the families, contributes to the improvement of the rate of qualitative improvement of the breed.

Keywords: breed, herd, selection, cow, family, milk

1. Introduction

Cows of Schwitz breed are distinguished by high milk productivity, fatty milk, longevity, good adaptive properties in the conditions of foothill zones and the withdrawal of new highly productive families does not lose its relevance [1]. Bull breeders of the Schwickie breed are characterized by high prepotency and are recommended to be used when creating new highly productive families of cows and qualitative improvement of populations. Selection of cattle milk type promotes the creation of highly productive dairy herds with improved parameters of technological attributes of the udder of cows [2, 4]. Cow families are a structural unit of the breed and are important in improving it. Creation of families and conducting selection and breeding work on them accelerates the rate of qualitative improvement of the breed [3, 5].

2. Methods of Research

The aim of the work is the creation of new highly productive families of Swiss breed cows.

The research tasks are to study and analyze the main selection characteristics of cows of new families.

In the work the methods of studying the productive indicators of cows, generally accepted in zootechny, have been applied.

3. Results and Discussion

Our research was aimed at creating and studying the dairy productivity of cows of the new Schwitz breed families. The

research was carried out in the pedigree farm "Avaz" in the Kurgantepinsky district of Andijan region in Uzbekistan. Dairy productivity of cows is studied by methods common in zootechnics. The object of research was the cows of Schwickie and older than the lactation of the Schwitz breed. Conditions for feeding and keeping cows of different families were the same. As a result of many years of scientific research, new families of Swiss breeds were created.

Table 1 shows the level of dairy productivity of newly created families and the productivity of cows belonging to these families in the pedigree farm "Avaz".

In newly created families in the breeding farm "Avaz" high-yielding cows-records were grown. As can be seen from the data in Table 1, these cows have new families. High genetic potential of dairy productivity. So, the yield of these cows exceeds the requirements of the standard of full-fat cows of Schwick breed from 2990 kg and 3.27 times, the fat content in milk by 0.40-0.55%, the yield of milk fat from 133.3 kg and 3.62 times. The high content of fat in the milk of cows of new families indicates the high nutritional value of their milk. The high coefficient of milk yield of cows of new families indicates the severity of their milk type. Individual cows, such as Bahor 30622, Yurmala 9062, Maria 0104, produced 1521, 1655, 1804 kg of milk per 100 kg of live weight, respectively, which is a record for the Schwitz breed in the republic. Table 2 shows the dairy productivity of the most highly productive cows of newly established families in the tribal farm "Avaz".

Table 1: Few families and highly productive cows

Ancestors of Families	Highly productive cows of new families	Milk, its productivity				
		milk, kg	fat,%	4% milk, kg	milk fat yield, kg	milk ratio, kg
Liliya 0008	Boychechak 0430	6215	4,15	6448	257,9	1062
Marikuza 2148	Biyron 9066	6568	4,20	6896	275,8	1132
Liza 0316	Bahor 30622	8520	4,20	8946	357,8	1521
Tuya 0282	Dora 9094	6324	4,20	6640	265,6	1109
Soniya 4612	Yurmala 9062	9664	4,25	9960	398,4	1655

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Astra 3566	Khandalak 8960	6411	4,15	6651	266,0	1165
Almazka	Utka 0238	7883	4,10	8080	323,2	1336
Platnya 1814	Katula 9970	6140	4,10	6293,5	251,7	1116
Mariya 0104	Maria 0104	10462	4,10	10723	428,9	1804
Vetka 1768	Rakel 0708	6341	4,15	6579	263,1	1093
Binafsha 8796	Chaman 0602	6185	4,10	6340	253,6	1085

Table 2: The most highly productive cows of the new Schwitz breed families

Cows of the Record	Milk , kg	Fat, %	Milk fat yield, kg	4% milk, kg	Milk ratio, kg
Mariya 0204	10462	4,10	428,9	10723	1804
Yurmala 062	9664	4,25	398,4	9960	1655
Liliya 0008	8537	4,20	358,5	8964	1498
Bahor 30622	8520	4,20	357,8	8946	1521
Vetka 1768	8518	4,20	357,7	8944	1521
Utka 0238	7883	4,10	323,2	8080	1336
Tuya 0282	7550	4,20	317,1	7927	1280
Astra 3566	7260	4,30	304,9	7623	1252
Boychechak 0430	6710	4,15	278,5	6962	1032
Strelka 8998	6732	4,15	279,4	6984	1235
Biyron 9066	6568	4,20	275,8	6896	1062
Xandalak 960	6411	4,15	266,0	6651	1165
Rakel 0708	6341	4,15	263,1	6579	1093
Dora 9094	6324	4,20	275,8	6896	1132
Chaman 0602	6185	4,10	253,6	6340	1085
Katula 9970	6140	4,10	251,7	6293	1116

Klara 0167	6136	4,15	254,6	6366	1227
Marafon 0626	6044	4,20	253,8	6346	1033
Kashka 5517	6090	4,20	255,8	6394	1160
Jayron 8876	6150	4,20	258,3	6457	1034
Marikuza 2148	6037	4,20	253,5	6339	1059

The analysis of the data in Table 2 shows that such cows of new families as Maria, Yurmala, Liliya, Bahor, Vetka are the record-holders of the Schwitz breed in our republic. The yield of these cows is 5318-7262 kg or 2.66-3.27 times, the fat in milk is 0.40-0.55%, the yield of milk fat is 239.3-310.5 kg or 3.02- 3,62 times exceeds the requirements of the standard of full-fat cows of Schwitz breed. These results indicate that new highly productive families of cows with a high genetic potential for milk productivity have been created and formed in the breed, they are also distinguished by an improved exteriors, high payment for milk feed, improved udder properties and reproductive functions. Table 3 shows the dairy productivity of high-yielding cows of new families in the breeding herd of the farm "Avaz".

Table 3: Productivity of ancestors and cows of new families

Nickname, number of ancestors of families	For the highest lactation			Productivity of cows belonging to families			
	milk, kg	fat, %	Living weight kg	n	Milk kg	fat in milk, %	Living weight kg
Liliya 0008	8537	4,20	570	10	5255±245,8	4,11±0,04	553±9,6
Liza 0316	5150	4,10	520	3	5830±1724	4,08±0,07	553±11,4
Tuya 0282	7550	4,20	590	5	5256±357	4,16±0,02	552±8,9
Soniy a 4612	4827	3,95	500	5	5231±382	4,10±0,06	551±16,0
Mariya 0104	10462	4,10	580	6	5329±211	4,14±0,02	568±2,3
Vetka 1768	8518	4,20	560	6	5253±254	4,09±0,05	565±4,0
Binafsha 8796	5270	4,10	570	6	5141±197	4,08±0,04	547±12,0
Astra 3566	7260	4,30	580	5	5210±346	4,09±0,03	534±15,1
Almazka	4570	4,00	490	3	6161±1063	4,17±0,08	552±33
Qaldirgoch 5242	5313	4,30	550	5	4950±122	4,07±0,03	548±10,8
Platnya 1814	5680	4,00	575	5	4799±404	4,07±0,07	524±21,0

As the data in Table 3 show, the cows of new families are distinguished by high milk productivity. The Almazka and Lisa families are the highest milk productivity. The cows of the Almazka family outnumber their ancestors by 1591 kg (34.8%), milk fat by 0.10%, live weight by 62 kg (12.6%), Liza's offspring by milk yield by 680 kg (13.2%).

The family Lily of 0008 has the largest offspring. The ancestor of this family exceeded the requirements of the breed standard by 2.68 times, the fat in milk by 0.50%, its daughter (n = 3) had an average milk yield of 6273 kg with a fat content of 4.18%. In this family the productivity of the cow Biyron 9066 was 6508 kg of milk with a fat content of

4.20%, Boychechak 0430 - 6215 kg of milk with a fat content of 4.15%, Marikuza 2148-6037 kg of milk with a fat content of 4.20%, in 4 grandsons - 4833 kg fat content 4.08%, in 3 granddaughters-4800 kg fat content of 4.10%. The yield of grandsons and great granddaughters of the ancestor of this family exceeded the requirements of the Schwicker breed standard 1.5 times. Which is a good indicator for the conditions of the foothill zone of the republic.

We have also learned milk yields of record-keeping cows, the founders of new families in the pedigree cattle of the "Savay Breeding Livestock" farm in Korgontepa District.

Table 4: Dairy productivity of the founders of new Swift Breeding families in the pedigree cattle of the "Savay Breeding Livestock"

The cow's nickname	Lactation	The amount of milk	Fat in milk	Milk fat output	4% milk	Milkiness coefficient.
Katusha 31009	V	7229	4,0	289,2	7229,0	1351,2
Zoya 00865	V	7025	3,9	274,0	6849,3	1335,5
Khurkhak 1211	III	6003	3,9	234,1	5852,9	1177,5
Zakhro 1217	IV	6106	3,9	238,2	5956,3	1221,2
Gaveta 1290	IV	6126	4,1	251,1	6279,1	1237,6

Tursinoy 31064	V	6025	4,0	241,0	6025,0	1193,1
Roza 31135	V	6024	3,91	235,5	5888,5	1192,9
Umida 31045	VI	6060	4,0	242,4	6060,0	1219,3
Valuta 2604	VI	6075	3,92	238,1	5953,5	1227,3
Cheburashka	IV	6616	3,92	235,8	5895,6	1312,7
Malak 31057	III	6527	3,95	257,8	6445,4	1279,8
Kumush 31058	IV	6612	3,9	257,9	6446,7	1283,9
Buqoq 15573	III	6073	3,91	237,4	5936,3	1224,4
Linda 15565	V	6018	3,93	236,5	5912,7	1203,6
Kanchenka 1608	IV	6052	3,91	236,6	5915,8	1205,6

It is clear from the table that the herd has a high fattening cow in Sweden. The milk content of these cows was higher than 2818-4029 kg of Swedish standard requirements for lactation 3 and above, milk content of 0.20-0.40% milk content exceeded 115.7-170.8 kg. Milk yields indicate that all cows are of milk type. All of these cows served as their founders in creating new families. These new cows are also characterized by high milk yields.

These families that the cow-recorders of the Schwick breed in the republic were raised. So, the yield of the cow Maria 0104 was 10462 kg, Jurmala 062 - 9664 kg, Bahor 30622 - 8520 kg.

The cows of these families were also distinguished by long longevity. Thus, the yield of the cows of Marikuza 2148 and the Boychechak 0430 of the family of Lily is 0008 amounted to 6037 and 6215 kg for VIII lactation, respectively, Dory 9094 from the Tuya family 0232 for the IX lactation 6324 kg, for the grand daughter of the ancestor Almazka - Ducks 0298 for the VII lactation 7883 kg, for Katula from family Platnya 1814 for VII lactation 6140 kg of milk, and individual cows of these families showed a good reproductive ability and even for 12 lactation gave one calf per year with a good milk yield, which indicates the high breeding value of the cows of the newly created families.

4. Conclusions

- 1) The cows of the newly created families are characterized by high milk productivity, fatty milk, longevity, a high milk yield and a pronounced milky type.
- 2) Cows of new families are recommended to use when creating "bull-producing" their groups, breeding a new intra-breed type and improving the breeding characteristics of cattle.

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