

Original Research Article

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Development on Genealogic Lines in Orlov Trotter in Bulgaria

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ABSTRACT

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The influence of Orlov trotter at horse breeding in Bulgaria since 1893 till now is studied. The first import of the Orlov stallions and mares was purebred breeding and after that they were crossed with local halfbred horses. The end of XIX and beginning in XX century (to 1926) the number of covered mares were 24 800 in the 5 stud farms. The study of line and family genealogic structures at the period of the purebred breeding and the 1960s the mares were covered of stallions of other trotter breeds. In the middle of XX century was imported the stallions of line Udaloj Crolik and Voin. The family structure was present of mare Zakrasa, Kadetka, Itka etc. The observed mean values for the examined 4 exterior measurements and their race results on 1600 m.

Introduction

The Orlov Trotter was developed in the end of the 18th and beginning of the XX century in Russia by Count Alexei Orlov at Khrenovskiy studfarm. Arabian horses were crossed with the Dutch, Danish and Mecklenburg harness breeds. The ancestor of all Orlov Trotters was the purebred grey Arabian stallion named Smetanka. Orlov bought him in Turkey. Four Smetanka's colts and one filly are embodiment of Orlov bred. Stallion Bars I (grandson of Smetanka and son of stallion Polkan) was born in 1784. Polkan was crossed with a Dutch mare which, in 1784, produced the grey stallion Bars I, considered the first Orlov trotter. He was 164 cm high at the withers, grey color, featured the beauty and noble bearing and possessed a fast trotting gait (Witt, 1927).

His 11 sons in Khrenovskiy stud the most popular are stallions Lebed I and Lybezniy I. Now all Orlov trotters are their progeny (Orlov, 1897). In 1847 was issued Orlov stud book and in 1937 Witt V. was written the first Orlov trotter breeding program.

In the present was development of 11 sire lines (Pilot, Voin, Barchuk, Otboy, Proliv, Pion, Lovchii-Ulov, Veterok-Kvadrat, Bubenchik-Veter, Gromodnogo-Uspeh and Velobot). Now some of other line are closed (Metsenat, Koreshok, Udaloj Crolik etc.) (Barmintsev, 1972; Budennii *et al.*, 1952). These sire lines are popular outside Russia. The purpose of this study is to follow and find the influence of the Orlov trotter on horse breeding in Bulgaria.

Materials and Methods

As a source of information we used annual zootechnical records from Stefan Karaja stud farm and the original pedigree the horses. We used exterior measurements and breeding details for Orlov trotter and result of their race career. We used the method of variational analysis for body measurements.

Result and Discussion

Development of horse breeding in Bulgaria are relete with important stallions and mares from different breeds. There were used for army and in agriculture and transport. The local horse in Bulgaria are crossed with Arabian, Thoroughbred, Orlov troter, Gidran, Nonius and other half bred and heavy breeds. The influence at Orlov trotter in Bulgarian breeds not study yet. The end of XX centaury after reconstruction in stud farms in Bulgaria they start work with Orlov trotter.

According to Petrov (1927) in the period 1883-1887 in stud farm Kabiuk-Shumenhad 108 stallions and 550 mares. 8 of them were stallion by region farms and 15 Orlov trotter mares. Among them were 17 mares with unknown pedigree but may be the are Orlov trotter.

One of mission on the stud farm between 1894-1923 were to delivered Orlov trotter for breeding with purpose improvement native horse breeding. The first was imported 26 Orlov stallions. Between 1894-1926 Bulgaria have 16 stallions – “Kabiuk” stud farm in Shumen, “Klementina”–Pleven and regional stud farms in Plovdiv, St. Zagora, Ruse and Kayaburun (Yambol). The same stallions were covered 24 801 mares (table 1).

Between 1893-1986 in stud farm Klementina, were used 8 Orlov trotter stallions (Priytni, Zefir, Risak, Kolesnik I,

Vasilchik, Omar, Voronensk and Arnaud) and 2 halfbred trotters (Arap and Vasilchik I). They have 40 progeny (12 mare and 18 stallions). After that these trotters used for Pleven horse bred (National bred) (Tsankov, 1987).

Petrov and Hajidimitrov (1936) was separated imported stallions and their sprogeny to following lines:

Line of stallion Voronenok

Stallion Voronenok (1893), dark bay, was born in Russia (155 cm) and after that was imported from stud farm on Iv. Intziorarif. The sire was in “Kabiuk” stud farm between 1897-1905, he was covered 286 mares. It`s 4 sons (Vidin, Vulkan, Voyn and Volantir) at the period 1905-1909 were covered 278 mares. In 1906 Voronenok was sold in “Klementina” stud farm where he was used like to sire to 1911 and covered 164 mares. In the same stud farm 7 of his sons covered 1 211 mares between 1920-1927 his sons Vashington and Voynik covered 660 mares in stud farm in Plovdiv city.

Line of stallion Stepeni

In Kabiuk stud Stepeni`s sons (Strahil, Sasho and Solun) covered 904 mares. For period 1912-1926 sons of Strahil covered 1289 mares. Stallion Stroen (son of Strahil) Covered 508 mares from 1914 to 1925.

Line of stallion Chernyo

Stallion Chernyo was born in Russia, 1893 (160 cm). He was in “Kabiuk” stud farm from 1897 to 1905 and was covered 113 mares. His sons covered 1446 mares.

Chernyo`s son – stallion Chirpan was in Plovdiv city from 1920 to 1925 and was covered 250 mares.

Line of stallion Bludliviy

In 1900 stallion Bludliviy, black, 1896 (158 cm) was imported from stud farm of Prince D. Konstantino vichto “Kabiuk” stud farm. There was covered 273 mares. Four sons (Boris, Baytar, Bota and Bronenosetz) was covered 524 mares. The stallion Bota was a successor of the line with his sons (Borislav, Boba, Bostan and Baskovetz). Between 1915-1927 they are covered 1 072 mares.

Line of stallion Mech

A stallion Mech, black, born 1894 (162 cm) by Mirovoy was imported from Russia. From 1911 to 1913 he was in “Kabiuk” stud farm and covered 25 mares. Between 1917-1928, 12 of his sons was covered 4 272 mares in Shumen region. One of them –a stallion Melburn was a successor of the line with 2 sons –Molodetz and Mercur. They was covered 148 mares. In Kayaburun the stallion Melburn and his sons covered 977 mares for 10 years (1915-1924). In 1901 a stallion Mech was covered 60 mares in St. Zagora city. This line was characterized with many covered mares.

Line of stallion Zhelezniy

Zhelezniy`s sons covered 123 mares in “Kabiuk” stud farm for 2 years (1905 and 1906). In “Klementina” stud farm the covered mares was 493. In Plovdiv city one stallion of this line was covered 265 mares for a period 1920-1925.

Line of stallion Vasilchik

The stallion Vasilchik was born in Russia, 1893. He was covered 245 mares in “Klementina” stud farm between 1897-1899 and 1909-1911. His progeny covered 1 017 mares. A Vasilchik`s grandson, a named Zarko, 1916 was in St. Zagora city in 1929 and he was covered 53 mares there.

Line of stallion Zefir

The stallion Zefir, 1893 by Uran was born in Russia. He used to sire in “Klementina” from 1897 to 1899 and covered 130 mares. His sons covered 1383 mares.

This lines not correspondence with official genealogical structure in Orlov bred. Unfortunately bulgarian breeders don`t have enough resours for papers and documents. For other stallions for breeding don`t have pedigree and breeding information. Interest fact is that the imported stallions was black and bay colors although Orlov trotter characterized with grey color (46%), black (28%) and bay (20%) (Rozdestvenskaya and Kreshihina. 1988).

In 1924 at Agriculture meeting was decided that horse breeding in Bulgaria was development in 2 directions –riding and light harness horses and draft work horse. In “Kabiuk” stud farm opening 3 sections: Arabian, Anglo-Arabian and Anglo-Normand (Nonius). Sections of Ardennes, Percheron, trotter and Thoroughbred was finished –they are not appropriate for height on local horse breeding and agriculture works (Petrov, 1927). This is the end of first period of Orlov trotter in Bulgaria.

In 1954 was imported Orlov trotters again. Now they used for improving on native horse and horse sport. The first was imported from Russia 3 stallions (Vorobishek, Perlamutr and Guslyar) and 8 mares. The stallions Vorobishek and Perlamutr was renamed on Apolon and Pompey. The used in “Stefan Karaja” stud farm-Balchik. Stallion Vorobishek (Apolon), 25.04.1950, body measurement 160/163/176/20. He was representative on line of Udaloj Crolik. 31 horses of same line was finished on 1609 m with 2.20 min; 6 horses-2.15 min; 2 horses –2. Now this sire line is closed.

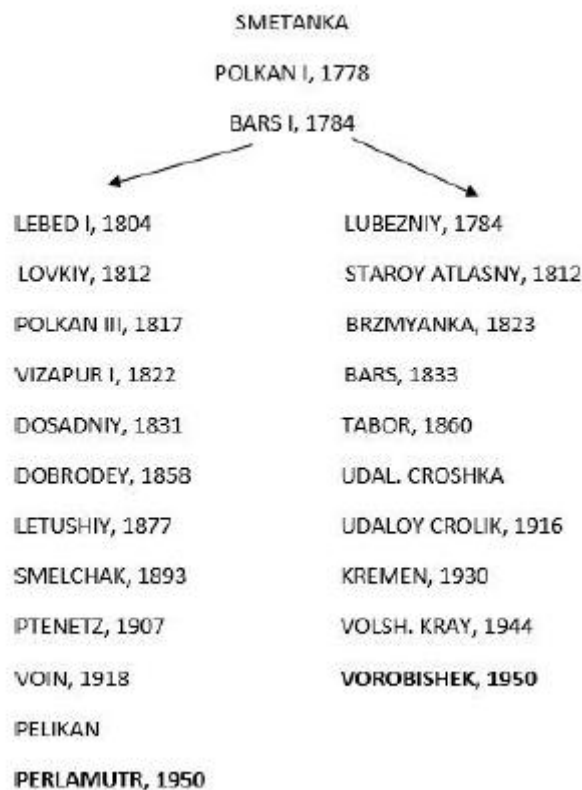
Table.1 Number of covered mares by stallions (line and region)
(by Petrov and Hajidimitrov, 1936)

LINE	Cover mares					
	Kabiukk	Klementina	Kayaburun	St. Zagora	Plovdiv	Total
Voronenok	564	1 375	-	-	660	2 599
Stepeni	2 701	-	-	-	-	2 701
Chernyo	1 559	-	-	-	250	1 809
Bludliviy	1 869	-	-	-	-	1 869
Mech	4 420	-	977	60	-	5 457
Zhelezniy	123	493	-	-	265	881
Vasilchik	-	1 017	-	53	-	1 070
Zefir	-	1 513	-	-	-	1 513
Other trotter stallions	1 001	3 669	639	1 257	336	6 902
Total	12 237	8 067	1 616	1 370	1 511	24 801

Table.2 Body measurement on Orlov stallions

traits	stallions			
	n	x	Sx	SD
height at withers	6	159,83	1,14	2,79
body length	6	161,50	1,67	4,09
chest circumference	6	184,67	3,09	7,58
cannon bone circumference	6	20,55	0,20	0,48

Fig.1 Line structure of Orlov bred



After imported (1954) on stallion Vorobishek he covered Orlov mare, Danubian and halfbred mares. He use 6 breeding season and was covered 49 mares (10 barren, 5 abortion, 34 foaling –18 colt and 16 filly). Stallion Perlamutr, 29.03.1950, body measurement159/162/181/20(fig. 1). He was representative on line of stallion Voin. The progeny of this line have the best race results. In Russia 318 horses have 2.20 min; 94 horses –2.15 min; 12 horses –2.10 min (1609 m). The stallion Voin died on 1958. He covered 60 mares –10 barren, 6 abortion, 44 foaling (24 colt and 20 filly). His representative was stallion Povelitel (1957) and stallion Plamak (1961) (Voin`s grandson). 6 of Voin`s sons was used in regional stud farms.

Body measurement was calculated via statistic analyze. Standard deviation by chest

circumference is 7.58. By cannon bone circumference variation is low (table 3).The result of body measurement is lower by Barmintsev results (1972) -height at withers162.1; body length 163.6; chest circumference183.8 and cannon bone circumference20.6.

Today Orlov bred are breeding in Russia – Hrenovski, Chestmenski, Moslowski, Permski and Altayski stud farm and Ukraine –Dubrovski stud farm. In 2011 was registry 1 stallion and 4 mares in Lithuania (Kalinkina, 2011). In Bulgaria Orlov trotter not breeding than 1980.

Orlov trotter have 700 registry horses in Russia and for that the bred was registry in FAO (Kalinkina, 2000).

In conclusion, Orlov bred was used for

improvement local horse breed in Bulgaria. After import on Orlov stallions and mares they are purebred breeding to 3-4 generations. Imported stallions was representative on 2 of 11 lines of Orlov bred.

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