

THE EVALUATION OF IRAQI PUREBRED ARAB HORSES OVER 12 YEARS

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Summary

Changes in the exterior purebred Arab horses during the last 12 years have been analyzed. Measurements with regard to the exterior were made on the presently living 238 horses from Baghdad, Nenava and Dialla. The exterior of purebred Arab horses has not been found principally changed: only the length of trunk has become a little longer in stallion and the girths circumference width of chest increased while in mares the length of trunk has become a little shorter and the girths circumference width of chest decreased. Nowadays, the living Iraqi purebred Arab horses present leveled type of horses with harmonious conformation. It seems that a stable.

تقييم الخيول العربية الأصيلة في العراق خلال 12 سنة

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الخلاصة

تمت دراسة وتحليل التغيرات في المظهر الخارجي للخيول العربية الأصيلة في العراق خلال 12 سنة الأخيرة. أخذت قياسات 200 حصان من بغداد، نينوى، ديالى، لم تتغير قياسات المظهر الخارجي للخيول العربية في العراق بصورة كبيرة وتغير طول الجذع فقط وأصبح أطول ومحيط البطن وعرض الصدر أصبح أوسع في الفحول أما في الأفراس فقد كان طول الجذع أقصر ومحيط البطن وعرض الصدر أضيق. تعتبر الخيل العربية في العراق من أرقى أنواع الخيل فهي ذات تكوين متناسق متناغم.

Introduction

Despite enormous destruction in Iraq wars, the breeding of Arab horses always remained on high level from the remains of the breeding material. The horse breeding in Iraq used to be a success in a remarkably short time ⁽¹⁾.

It happened so after the last two wars. The breeding of purebred Arab horses has not only been restored, but has attained the world's level very soon. Iraqi Arab horses belong to the most valuable horses in the world⁽²⁾.

It should be underlined that, from all branches of animal breeding in Iraq only breeding of purebred Arab horses entered into the world's elite⁽²⁾. All leading studs of purebred Arab horses in the world used horses bred in Iraq. As it is now, the main role in the breeding of Arab horses is played by their beauty and exterior^(1,2,3). Changes in horse beauty are difficult to evaluate objectively. In view of that, this study focuses on the analysis of the body conformation of horses, which undoubtedly have contributed to breeding success.

Material and methods

Biometric analysis of purebred Arab horses from Baghdad in 2001. Measurements covered both brood mares and leading stallions, totally 100 mares' and 100 stallions³. The following 7 measurements were performed on each horse: height at withers, height at croup, length of trunk, girths circumference, width of chest, circumference of fore cannon, length of fore limb⁵. The obtained results were compared to the measurements of Merhish 1989 and Sinan 1999. A statistic analysis was performed using computer program.

Results

Measurements of the exterior features of purebred Arab mares and stallions during the last 12 years. The biometrical measurements of purebred Arab mares from 1989 to 2001 (Table 1) show that no significant changes occurred in the Iraqi population of these horses. The height of mares has not nearby changed. No significant differences were found in the height at withers between the measurements made in 1989-2001. The stability of the height of mares in the discussed period is supported by the height at croup. No significant differences were found in the measurements concerning the height at croup in 1989, 1999-2001.

Significant changes appeared only in the length of trunk, in the circumference of girth (Table 1). In the studied period, mares become shorter and they're in this circumference also decreased. It may be suggested that the decrease of girths circumference was a result of a better condition and good training. In 1989-2001 no differences were found in the width of chest of Arab mares.

In the studied period, the circumference of fore cannon and the length of the forelimb significantly increased (Table 1).

Arab mares became bonier and more "deep". An increase of good bone is some times not desirable and splints can be found at present in purebred Arab horses. Like in mares, stallions were not found to have notable changes in the height at withers and in the height at croup during the studied period (table 2). The only significant difference was found in the height withers in the stallions between 1989-2001. This difference, however, is not too large and amount to 1.64 cm is could result from the fact that in 2001 the measurements were conducted on more selected stallions.

The length of trunk, girths circumferences of stallions were subject to significant enlargement not like those in mares (Table 2). The first two features chiefly enlarged in 1989-1999, since significant differences did not occur between 1999-2001.

The width of shoulder points enlarged 1999, but already in 2001 no significant differences were found between the years 1989-2001. The circumference of the fore cannon in stallions increased in 1999 and was stable in 1999-2001. The length of fore limbs in stallions decreased especially between 1989-1999. The main biometrical measurements made in the years from 1989-2001 show that the height both mares was not largely measurements made in the years from 1989-2001 show that the height both mares (Table 1) and stallions was not largely changed. The girths circumference and circumference of fore cannon were markedly changed. These changes were especially visible just after 1999 (Table 1,2) it may, however, be noticed that after 1999 the circumference of both girth and fore cannon has not largely changed. The trunk of stallions has become longer, while in mares become shorter. Arab horses are distinguished by a small height, beauty, good horses and harmonious conformation, which is particularly important in this breed.

Table 1: Results of biometrical measurements of the Iraqi pure breed Arab mares in the years 1989-1999-2001

Measurements	1989 N =50		1999 N =81		2001 N =100	
	X	SE	X	SE	X	SE
Height at withers	149.32	0.737	149.42	0.208**	149.5	0.41*
Height at croup	148.45	0.568	148.04	0.206**	148.63	0.42
Length at trunk	146.88	0.456**	143.42	0.232**	143.92	0.07**
Girths circumference	172.75	0.851	168.741	0.275**	168.84	0.99**
Width of chest	43.58	0.076**	39.169	0.243**	39.10	0.30*
circumference of fore cannon	18.10	0.135	18.45	0.148**	19.73	0.91*
Length of fore limb	83.09	0.265	83.355	0.161**	84.76	0.38*

N-number, X mean, SE- standard,* significant differences at $p < 0.05$, ** significant differences at $p < 0.01$

Table 2: Results of biometrical measurements of the Iraqi pure breed Arab stallions in the years 1989-1999-2001

Measurements	1989 N =50		1999 N =81		2001 N =100	
	X	SE	X	SE	X	SE
Height at withers	150.10	0.45*	151.00	0.69	151.74	0.64*
Height at croup	150.80	0.46	150.80	0.68	150.30	0.65
Length at trunk	148.27	0.75**	152.00	1.10**	151.54	1.06*
Girths circumference	169.60	0.83**	180.40	1.23**	178.72	1.18**
Width of chest	40.88	0.35	41.90	0.52*	40.32	0.50**
circumference of fore cannon	18.90	0.07**	19.40	0.11**	19.38	0.10**
Length of fore limb	86.52	0.39**	82.39	0.58**	80.44	0.56**

(Explanations – see Table 1)

Discussion

Iraqi Arab horses are exported to the most known studs in Europe and outside Europe. Until 1999 purebred Arab horses (238). Iraqi Arab horses gained most valuable rewards at various breeding shows. Prices for Iraqi Arab horses are indicative of a high rank of the horses breeding. There is, There fore, a question,

what has contributed to the success of our breeding and how did the evolution of desert Arab horses, imported Iraq develop Iraqi breeding of Arab horses always followed an unchangeable principle that Arab horses should be of medium height, bony, good looking, strong and resistant.

This stability in the attitude towards breeding of Arab horses is undoubtedly the reasons of the Iraqi breeding success. As follows from the performed studies, the exterior of Arab horses has not principally changed for the last years. The height of Arab horses has not significantly changed in the discussed period. Only the girth circumference has enlarged in stallions and decreased in mares and this feature, to a large extent is determined by environmental factors, chiefly by feeding exercise.

The circumference of fore cannon has also increased which indicates the so-called good bone of horses. They have because somewhat longer, and less high, legged than desert horses.

During the last 12 years the exterior of Iraqi purebred Arab horses has not principally changed. The only changes an enlargement of girths circumference and circumference of fore cannon as well as a prolongation of the trunk length in stallion while in mares decreased the girth circumference and the length of trunk become shorter.

The presently living Iraqi purebred Arab horses present leveled type of horses with harmonious conformation.

Successes of Iraqi breeding of Arab horses may be ascribed to stable breeding policy.

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