

EXAMINATION OF JUMPING ABILITY OF ENGLISH THOROUGHBRED MARE FAMILIES INHERITED FROM THEIR RANK (HUNGARY)

ISPITIVANJE SKAKAČKE SPOSOBNOSTI KOBILA OBITELJI ENGLESKOG PUNOKRVNJAKA NASLIJEĐENIH OD SVOJE VRSTE (MAĐARSKA)

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ABSTRACT

English thoroughbreds are used as an improving stock on the world's leading breeding farms. Only those, free from hereditary defects and whose results are proven, are suitable for sport horse breeding.

The Hungarian selection of thoroughbreds came to an end in 1989. Accordingly, to increase the jumping ability of the Hungarian thoroughbreds is of great importance.

In this paper our task is to point out those thoroughbred mare families whose offspring are suitable in sporthorse breeding. Our research is based on the results of hurdle and steeplechase races between 1970 and 1989 from the Gallop Annuals.

Additionally, their performance indices were calculated, meaning that every first place is worth 4 points, every second place achieves 2 points and the rest of the places are valued as 1 point. The sum of the points and the quotient of the starts gave the mentioned index. After doing a statistical analysis on the results which assigned the mare families to a certain classification. 11 mare families were pointed out – of the 37 examined ones - which were proposable for sporthorse breeding. Accordingly, to each mare family a number was given: 1, 2, 4, 8, 11, 14 and 27.

Our research indicates that by choosing a mare from the suitable mare families, the breeders will be able to improve the jumping ability of the Hungarian sporthorse stock efficiently.

Key words: jumping ability, thoroughbred, mare family

INTRODUCTION

The world's leading thoroughbred breeding countries (England, Ireland and France) breed horses specially for hurdle- and steeplechase racing. These horses are not only of swift but also

possess excellent jumping ability and only those, which have excellent temperament and good

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conformation traits can be used as stallions in hunter and sporthorsebreeding. The breeders know that the best horses can only come from the best marefamilies and they amount to the 20-30% of the families. An earlier research indicates this percentage was 12% in the Holsteiner Breeds.

The requirements of the hunter- and steeplechase races are extremely high. Only the best trained horse with an excellent jumping ability, temperament and good standing ability can win this kind of race. We can not draw a proper conclusion from the results of the jumping ability because there are numerous external factors, which act as influencing factors' they are as follows:

- Age and conditions of the horse
- Climatic impacts on the non all weathers track
- Mistakes of the rider (subjective factor)

The Hungarian selection of thoroughbreds for jumping ability came to an end in 1989. Between 1989 and 2000 there were no hurdle and steeplechase races in Hungary. From the year of 2001, races took place again, but the low number of the horses could not be the base of the selection. Since 1989 the number of the thoroughbreds in the National Sporthorse Recording has started to decrease which resulted in a decreasing number of thoroughbreds sires having excellent jumping ability in Hungary's sporthorse breeding.

MATERIALS AND METHODS

Our database contains all the results of each horse participating in any hurdle or steeplechases taken place between 1970 and 1989. The race results are from the Gallop Annuals. We processed the facts according to their origin to the fourth ancestor based on the XX. - XXIV. issues of the Hungarian General StudBook. Horses of unclear origin (most of the imports from the former S.U.), and those who participated in less than two races were excluded from the study. The remaining horses are ranked into more families on the basis of the Bruce Lowe mare family scheme and grouped into smaller subfamilies. During the statistical analysis the subfamilies with low number of the progenies were excluded from the study too.

Additionally, we calculated their performance indices, meaning that every first place is worth 4 points, every second place is worth 2 points and the rest of the places are worth 1 point. The sum of the points and the quotient of the starts gave the mentioned index. After doing a statistical analysis on the results the mare families were assigned to a certain classification.

RESULTS AND DISCUSSION

We pointed out 11 mare families - of the 37 examined ones - which can be recommended for sporthorse breeding (Figure 1).

Figure 1. The best mare families (P>0,05)
Slika 1. Najbolje obitelji kobila

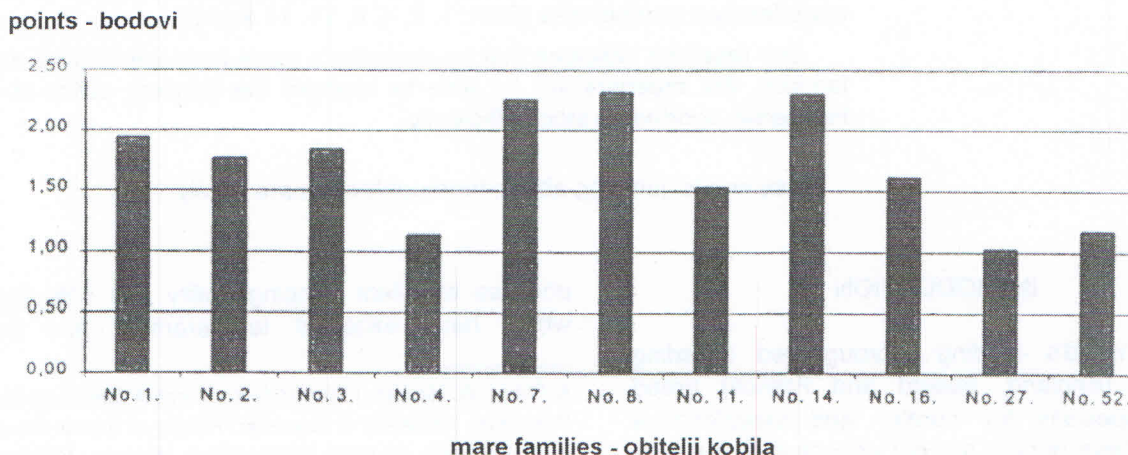
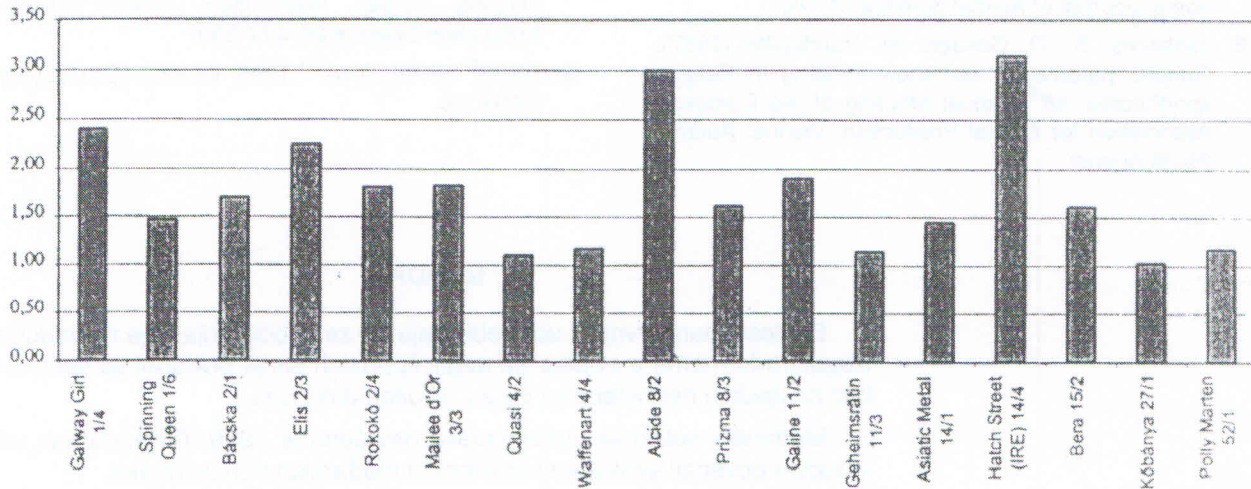


Figure 2. Average points of the best subfamilies ($P < 0,05$)

Slika 2. Prosječni bodovi najboljih podobitelji

points - bodovi



Only these 11 from the 37 marefamilies were found having good jumping ability and conformation traits to use in sporthorse breeding. These families were divided into 17 subfamilies which means that only 7 marefamilies out of the original 52 (basic families), gave families with two or more subfamilies.

All of the 17 subfamilies (Figure 2) gave more than 8 participated in steeplechase races during the 20 examined years and gave progenies until now.

CONCLUSION

Our researches helped to chose mares or marefamilies for breeding a stallion with good jumping ability and conformation traits. After the statistical analysis we didn't find significant difference between the marefamilies ($p > 0,05$) but after doing the same analysis with the subfamilies we did ($p < 0,05$).

As a conclusion we can state that only the 7-12% of the subfamilies are proposable for breeding for show jumpings and three-day-event competitions and can effectively be used to increase the jumping performance of the Hungarian sporthorse stock. Finally we suggest:

implementation of breeding marefamilies in the area of thoroughbred and sporthorse breeding

opportunity to select by means of jumping ability (show jumping, three-day-events)

to push into the background the sporthorse breeders' aversion to english thoroughbreds

to determine and achieve proper aims in Hungary's sporthorse breeding

to elaborate the estimation of the breeding value for sporthorses

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IZVADAK

Engleski punokrvnjaci upotrebljavaju se za poboljšanje loze na vodećim uzgojnim farmama u svijetu. Za uzgoj športskih konja prikladni su samo oni bez nasljednih nedostataka i čiji su rezultati dokazani.

Mađarska selekcija punokrvnjaka dovršena je 1989. Prema tome, vrlo je važno povećati skakačku sposobnost mađarskih punokrvnjaka.

U ovom radu zadatak je bio istaknuti one obitelji kobila punokrvnjaka čiji su potomci prikladni za uzgoj športskih konja. Istraživanje se temelji na rezultatima preponskih utrka i utrka preko zapreka između 1970. i 1989. iz Kasačkih godišnjaka.

Osim toga, izračunati su indeksi njihovih rezultata gdje svako prvo mjesto vrijedi 4 boda, svako drugo mjesto 2 boda a ostala mjesta vrijede 1 bod. Zbrojem bodova i kvocijenata početaka dobiven je spomenuti indeks. Nakon statističke analize rezultata, koji su svrstali obitelji kobila u određeni razred, istaknuto je 11 obitelji kobila - od 37 ispitanih - koje su predložene za športski uzgoj. Prema tome, svaka obitelj kobila dobila je broj: 1, 2, 4, 8, 11, 14 i 27.

Istraživanje upućuje da će izborom kobile iz prikladnih obitelji uzgajajući moći svrsishodno poboljšati skakačku sposobnost mađarskog športskog konja.

Ključne riječi: skakačka sposobnost, punokrvnjak, obitelj kobile