

**ОШ МАМЛЕКЕТТИК УНИВЕРСИТЕТИНИН ЖАРЧЫСЫ. АЙЫЛ ЧАРБА:
АГРОНОМИЯ, ВЕТЕРИНАРИЯ ЖАНА ЗООТЕХНИЯ**

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**ОРГАНИЗАЦИЯ И АНАЛИЗ ЭФФЕКТИВНОСТИ ПРОИЗВОДСТВА
ПРОДУКТОВ КОНЕВОДСТВА ПО ПОРОДАМ И РЕГИОНАМ РК**

КАЗАКСТАН РЕСПУБЛИКАСЫНЫН РАЙОНДОРУ БОЮНЧА ЖЫЛКЫ ЧАРБАЛЫК
ПРОДУКЦИЯСЫНЫН НАТЫЙЖАЛУУЛУГУН УЮШТУРУУ ЖАНА ТАЛДОО.

ORGANIZATION AND ANALYSIS OF PRODUCTION EFFICIENCY
HORSE BREEDING PRODUCTS BY BREED AND REGION OF THE REPUBLIC OF
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ORGANIZATION AND ANALYSIS OF PRODUCTION EFFICIENCY HORSE BREEDING PRODUCTS BY BREED AND REGION OF THE REPUBLIC OF

Abstract

The system of remuneration for workers in productive horse breeding currently provides for a direct relationship between the level of wages and the quality of the products obtained. In the context of the practical implementation of on-farm self-accounting in herd horse breeding, the form of an annual self-accounting task has proven itself well. In the near future, as the current economic situation changes and a stable demand for high-quality, environmentally friendly horse meat emerges, highly productive horse genotypes, preserved and propagated in breeding farms in various regions, will find wide application, both in purebred breeding and for use in various crossbreeding options.

Keywords: horse, labor remuneration, horse meat, economic efficiency.

**КАЗАКСТАН РЕСПУБЛИКАСЫНЫН
РАЙОНДОРУ БОЮНЧА ЖЫЛКЫ ЧАРБАЛЫК
ПРОДУКЦИЯСЫНЫН НАТЫЙЖАЛУУЛУГУН
УЮШТУРУУ ЖАНА ТОЛДОО**

Аннотация

Өндүрүмдүү жылкы чарбасында жумушчулардын эмгегине акы тее системасы азыркы учурда эмгек акынын деңгээли менен алынган продукциянын сапатынын ортосунда туздан-туз байланышты камсыз кылат. Үйүр жылкы чарбасында ички чарбалык чыгымдарды практикалык түрдө киргизүүдө чарбанын жылдык бухгалтердик отчетунун формасы өзүн жакшы көрсөтүп турат. Жакынкы келечекте учурдагы экономикалык кырдаалдын өзгөрүшү жана ар кайсы аймактардын асыл тукум чарбаларынын шарттарында сакталып жана көбөйтүлүп жаткан сапаттуу, экологиялык жактан таза жылкы этине, жогорку продуктулуу жылкы генотиптерине туруктуу суроо-талаптын пайда болушу менен, ал таза асыл тукумда жана ар кандай гибриддештирүүдө колдонуу үчүн кеңири колдонулат.

Ачкыч сөздөр: жылкы, эмгек акы, жылкынын эти, экономикалык эффективдүү.

**ОРГАНИЗАЦИЯ И АНАЛИЗ ЭФФЕКТИВНОСТИ
ПРОИЗВОДСТВА
ПРОДУКТОВ КОНЕВОДСТВА ПО ПОРОДАМ И
РЕГИОНАМ РК**

Аннотация

Система оплаты труда работников продуктивного коневодства в настоящее время предусматривает прямую зависимость между уровнем заработной платы и качеством получаемой продукции. В условиях практического внедрения внутрихозяйственного хозрасчета в табунном коневодстве хорошо зарекомендовала себя форма годового хозрасчетного задания. В ближайшей перспективе при изменении сложившейся экономической ситуации и появлении стабильного спроса на высококачественную, экологически чистую конину, высокопродуктивные генотипы лошадей, сохраненные и размноженные в условиях племенных хозяйств различных регионов, найдут широкое применение, как при чистопородном разведении, так и для использования в различных вариантах скрещивания.

Ключевые слова: лошадь, оплата труда, конина, экономическая эффективность.

Introduction

The modern stage of functioning of the horse breeding industry in general and herd horse breeding in particular includes the period of transition of the economy to market relations. In the conditions of market relations formation big changes have occurred in the distribution of horse stock by categories of owners. There was a surge in the number of horses in private subsidiary farms of the population. For the last decade the number of horses in these categories of farms increased 3 times, the number of mares 3.8 times. In peasant farms, farms currently have 68-81% of the total number of horses, including 85% of mares 3 years old and older. In larger agricultural enterprises - respectively 19-32% and 15%. The tendency of sharp increase of horse stock in farms is caused by socio-economic factors. Concentration of the main share of horses in private farmsteads increases their safety, which is achieved by improving reproduction and technological level of breeding, and as a result there is an effective and expanded development of horse breeding.

The main studies on the location of meat herd horse breeding, dynamics and analysis of the number of horses, economic assessment of their quality, study of technology and organization of the industry, scientific justification of a fuller use of available reserves to improve and increase meat production have affected the last decade. To characterize the location of the industry we analyzed data on the concentration of different genotypes of herd horses in farms of different regions.

Materials and methods

The system of labor remuneration of productive horse breeding workers currently provides for a direct correlation between the level of wages and the quality of the products obtained.

The main production unit in herd horse breeding is a team of herders. In Akmola and Karaganda oblasts in a number of advanced farms the shift principle of labor organization is provided. The brigade of herdsman is divided into two groups of 2-3 people and stay round the clock with the herd for 15-20 days. The brigadier conducts a shift change, where the head of each regular shift receives and counts the livestock according to the inventory. The brigade in winter period consists of 7 people, in summer time of 5 people. A team of herders serves one herd of horses. Brigade members are responsible for herding, guarding, milking, etc. Norms for assigning horses to herders are determined by a number of factors: the way horses are kept, terrain, pasture yield, herd size, etc.

In central and eastern Kazakhstan, the size of a herd ranges from 200 to 800 head. In the southern and western regions, horses are mainly kept in shoals and the division into herds is conditional, as each shoal is grazed separately and the herd is collected only during recounting, vetting, tattooing or chipping.

Results and discussions

The Department of horse breeding of KazRIAHaFP has developed parameters of herd structure for Central Kazakhstan under intensive herd horse breeding.

The optimal recommended herd structure is as follows:

- stallions-producers 20 head (6%);
- 300 mares (86%);
- repair young stock (1.5 and 2.5 year old mares) - 30 head (8%).

With such structure of the herd, all young stock (except for 10-15 repair mares) are sold or transferred to another farm after fattening and the herd enters the winter without foals. On such a farm, the main task is reproduction and preservation of young stock until they are weaned. Meat production and growing up of young animals should be done by another farm.

In many farms, the team of herdsman receives a fixed salary, and after fattening according to the results of work they receive additional payment. In farm "Bakytbek" of Karaganda region the plan of the brigade for 100 mares is 75 foals. Anything more than this percentage is paid in the form of remuneration.

On seasonal dairy farms, a milker receives 100 tenge of salary for each liter of milk milked. On the koumiss farm of the farm "Kuanysh" of Mangistau oblast, a milker gives 100 liters of milk per day from 28 mares. His monthly salary is 300,000 tenge. In Almaty and Zhambyl oblasts 80 tenge is paid per liter of milk, in the suburbs of Astana - 90 tenge.

In the conditions of practical introduction of intrafarm self-financing in herd horse breeding the form of annual self-financing task has proved itself well. The task is divided into quarters. The task takes into account the number of horses, litter production, meat and milk production, breeding of pedigree horses. Sholak Espe" farm in Karaganda oblast practices additional payment to herdsman for breeding of pedigree stallions. Every year the farm sells up to 200 stallions of 2.5-3.0 years old at a high price (2000€ per head) to different regions of the republic.

In fattening yards where cull mares, 2.5-4.0 year old stallions and geldings are raised, workers are often paid a fixed wage with bonuses based on the final performance of the fattened batch of animals. The norm of service per worker varies from 15 to 40 heads. It is connected with fattening technology. If the duties of a worker in loose housing include only feeding, with automatic watering, the norms are high. On farms, where the stall tied keeping of horses is provided and the worker himself feeds, himself removes daily manure, the norms are not more than 15-20 heads. For example, on the fattening ground of farm "Shaushen" the load on one worker is not more than 10 heads.

In modern Kazakhstan there is practically no fattening of horses on bard, cake and other technical raw materials. Fattening is mainly on cereals with addition of bran, alfalfa hay. The duration of fattening is from 40 to 80 days, depending on the initial fatness of the animal.

Breeding of young stock. Reproduction and breeding of young stock is of particular importance on koumiss farms. By correctly organizing the breeding of young stock under milking mares, it is possible to obtain additional products - meat foals, as well as to provide the farm with young stock to replenish the herd.

When organizing the reproduction of the herd, the planning of rational timing of foaling is of great importance. On seasonal koumiss farms, mares should foal in April-May. On stationary farms, the period of foaling is maximally extended to ensure year-round milking of mares. Mass late summer and fall foaling is not possible in horse breeding because most mares are not sexually active in the fall. Mothers that were foaled in July-August can be milked until March. So on the stationary farm of "Saumal Deluxe" LLP in Almaty region for three years up to 15 mares are foaled in August-September and their milking lasts till March of the next year. This was achieved by constantly shifting the terms of breeding and foaling.

Horse meat. Horse meat is a traditional food of nomads and in the diet of the inhabitants of the republic occupies a traditional place of honor after beef. The main consumption of horse meat according to Kazakh tradition is in the fall and winter, although the demand is very high all year round. Horses in the central and eastern region of Kazakhstan are slaughtered for meat from fattening and used for fattening only when the animal is in low condition. Horses in the south and west of Kazakhstan are used for meat 90% of the time after fattening. Condition of animals in this region after fattening is very low. This is due to the low productivity of pastures and the lack of purebred meat horses in these regions. The livestock in these regions are mostly littermates and are very poorly fattened at fattening.

We analyzed horse meat production by breed and type at the 2019 foal rate (Table 1).

If recalculated for meat in slaughter weight, the advantage remains with the Mugaljar horse breed, the slaughter yield of which reaches 58-60%. Despite the relatively small amount of meat from Adai horses, they should be given preference over all other breeds, because in this zone, except for the Adai horse, it is not possible to breed any other breed. In addition, the difference in the amount of produced products is directly related to the survival rate of young animals. Thus, the given materials allow us to reasonably recommend to each region of Kazakhstan to breed for meat in herd conditions exactly those genotypes of horses, which give the greatest amount of production.

In the Southern region breed Kazakh type of Zhabe, Mugalzhar and their crosses with Don horses.

In the Western region - Kushum, Mugaljar and their litters, and, in the Caspian zone - Adai.

Table 1. *Quantity of horsemeat in live weight produced per mare at the 2019 foal rate*

Breed, type, brat	Number of foals under 30 months of age.	Average live weight of foals at the age of 30 months, kg
Mugalzhar bread	122	370
Kazakh horse, Zhabe type	111	363
Don-kazakh	34	372
Trotting-kazakh	23	374
Don breed	12	380
Kazakh Kushum	15	379
Heavy-kazakh	10	382
Adai breed	36	333
Naiman type	11	325

In the Central region - Mugalzhar, Kazakh horses of the Zhabe type and their crosses with Don horses.

In the Northern region - Mugalzhar, Kazakh and their crosses with heavy and trotter breeds.

In the Eastern region - Kazakh horses of the Zhabe type and their crosses with heavy-carriage breeds.

In the near future, when the current economic situation changes and stable demand for high-quality, ecologically clean horse meat appears, highly productive genotypes of horses, preserved and multiplied in the conditions of breeding farms of different regions, will find wide application both in purebred breeding and for use in various crossbreeding variants.

The increase in horse meat production in the new economic conditions at the current stage is achieved by increasing the number of horses in farms of all regions of Kazakhstan. Long-term studies of the state of herd horse breeding of the republic have shown that the fodder capacity of natural pastures in the Central, Western, Southern, Eastern and Northern regions allows increasing the number of herd horses twice. It has been established that meat herd horse breeding can and successfully develops in agricultural enterprises of different types. In sparsely populated regions, as well as in places with a significant share of unused pastures, there is a growth of specialized horse breeding farms with the number of 1000 and more heads.

Increasing the sustainability and efficiency of herd horse breeding in the future should be carried out through the introduction of a whole complex of organizational-technological, breeding and economic measures.

In our research, economic efficiency was determined by the conditional profit from one head of 2.5-year-old young horses in each region, taking into account fattening or fattening (Table 2).

Horses bred in Almaty, Zhambyl regions had high realization value, as according to JSC "Kazagromarketing" on 01.01.2022 the average price of 1 kg of horse meat is 2000 tenge. Ponies of unidentified origin used for meat in private farmsteads have low profitability and are slaughtered only after fattening.

As can be seen from the table, Mugaljar stallions have an advantage in live weight and the level of profitability of their breeding is the highest.

Overexposure of young stock up to the age of 25-30 months is not economically justified. Only genotypes of horses given up for meat from fattening have insignificant profitability. Non-specialized in meat direction breeds are not recommended to keep in herds.

Table 2. *Economic efficiency of breeding stallions up to 30 months of age*

Breed	Weight at 30 months, kg		Maintenance costs, tenge	Realization price, tenge	Net income, tenge	Profitability level, %
	year-round grazing	fattening within 60 days				
Mugalzhar breed	370	-	70 000	600 000	200 000	80
Kazakh horse, Zhabe type	365	-	70 000	550 000	150 000	50
Don-kazakh	372	-	70 000	500 000	100 000	120
Trotting-kazakh	-	419	150 000	500 000	50 000	33
Heavy-kazakh	-	382	200 000	550 000	50 000	-
Adai breed	332	-	100 000	500 000	500 000	50
Different breeds	-	406	100 000	500 000	100 000	10

The central region of Kazakhstan is represented by Karaganda oblast, where horses of Mugaljar, Kazakh breeds and ponies are bred. The economic effect of breeding Mugaljar horses in this region is quite high. It can be even higher if horse meat from this region is supplied to Astana at a higher price. The stud farm "Sholak Espe" annually sells up to 200 heads of young stock to the farms of the region. In the commercial farms of the region, the reproduction and quality of meat products have already significantly increased due to the improvement of local horses by stallions of Kozhamberdin type of Mugaljar breed

Conclusion

The given material convincingly enough shows high efficiency of horse meat production in conditions of year-round pasture keeping by using specialized meat and milk breeds of horses in different regions of Kazakhstan.

Economic efficiency of breeding stallions of Mugaljar and Kazakh type of toad breeds for breeding purposes is even higher. Costs for breeding of pedigree stallions up to 1.5 years of age, with year-round pasture keeping do not exceed 80 thousand tenge per head. Realization price of stallions of 2,5 years old is from 600 to 900 thousand tenge. Net profit reaches 500-700 thousand tenge.

Breeding of stallions and mares of specialized meat breeds in farms of different regions of the Republic is highly profitable, has a significant impact on the increase of horse meat production. At the same time, the cost of purchasing breeding stallions pays off already when the first generation of offspring is obtained.

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