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INFLUENCE TYPE OF HIGHER NERVOUS DIALYSIS ON WORKING EFFICIENCY AND RICE OF HORSES

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Abstract: The analysis of influence of the type of higher nervous dialysis on formation of working productivity of horses, their relative growth and development was carried out. It was found that the horses of the Ukrainian riding of a strong, balanced moving and inert types of GNI for live weight, growth and productivity are slightly higher than the horses of the Ukrainian equator of the strong unbalanced and strong, balanced inert types of GNI in all growing periods.

Key words: horses, type of higher nervous dialysis, live weight, growth, indices, measurements.

Estimation of working productivity of horses of sport breeds at an early age is of great selective and economic importance. As a result of tests, the evaluation of pedigree studs and uterus in the quality of offspring is carried out, breeding work with sports breeds is adjusted, the selection pressure is increased according to the main selection criteria, especially on indicators of workability, thereby accelerating progress in the breeds, increasing genetic potential and its competitiveness at the international level. Scientifically proven benefits of testing sports horses at an early age. Thus, according to the results of many years of testing of young horses of sports breeds, it has been established that horses, highly evaluated in tests with a probability of 84.5%, perform athletes at high levels [1, 2, 3].

The purpose of our research was to study the impact of the type of higher nervous dialysis on the formation of the level of working productivity of horses, basic

measurements and live weight.

Methodology and source material. The research was carried out on the stock of horses of Ukrainian riding breeding plant PJSC "Rize-Maximko" (N = 77).

The assessment of growth and development was carried out according to the following indices: height in the neck, breast circumference, trunk length, trunk circumference and live weight.

Analysis of working productivity of horses was based on the results of factory tests in the farm.

In order to achieve this goal, conventional zootechnical methods were used. The origin of horses was determined on the basis of pedigree cards. Definitions of the type of higher nervous dialysis were carried out using the simplified method of VNICC [4]. All data is statistically processed by the methods of variation statistics [8].

Results and discussion. For the analysis of the exteriors, 77 horses of Ukrainian riding were selected, which was divided into 4 groups by the type of higher nervous activity. According to the results of the study of growth and development of horses. Adult livestock of horses with a weak type of higher nervous dialysis in height at the withers, oblique body length and chest circumference are likely to exceed the standard breed, respectively, at 2, 5 and 4 cm ($P < 0,01$). The lowest indicators of height at the withers were observed in adult horses of 3 other groups (164 cm).

Youngest in measurements exceeds the standard for 4 indicators in 3 groups (strong balanced inert, strong unbalanced and weak) respectively at 5, 4, 8, 7, 16, 11, 1.25 and 2.2 cm. A horses with a strong, balanced motive type of DN, exceed the standard for oblique length, chest and hemaggling by 1, 8 and 0.7 cm.

Table 1**Live weight of horses in growing periods, kg**

Age	Types of higher nervous dialysis			
	strong balanced mobile (n=15)	strong balanced inert (n=11)	strong unbalanced (n=37)	weak (n=10)
6 mic.	276±6,6	167±0,5	115±5,11	179±0,5
12 mic	381±2,5	301±1,6	340±7,2	315±6,0
18 mic.	336±2,4	330±1,7	380±7,6	325±6,2
24 mic.	894±2,6	462±1,8	344±9,3	463±6,7
30 mic.	470±1,6	475±1,8	450±9,3	470±6,8
42 mic.	551±4,5	447±4,1	427±1,2	438±1,5
54 mic.	576±3,1	587±4,3	549±1,4	501±59

As can be seen from the data in Table 1, the horses of the Ukrainian riding of strong, balanced, mobile types of higher nervous dialysis per live weight and increments somewhat dominate the horses of strong unbalanced and strong, balanced inert types of higher nervous dialysis in all growing periods. This indicates a lack of nutrition and an insufficient level of exercise for these horses.

The analysis of Table 2 shows that adult horses with strong, balanced inert and strong unbalanced higher nervous dialysis types are relatively large and close to the rice breeds under the index of the format (index 101), and the young - the weak type of higher nervous dialysis is rather bony and massive. As for the other two types of horses, the strong, balanced inert and weak types correspond to the top type of breed.

The data in Table 2 also confirm the above conclusion.

Table 2

Measurements and indices of the structure of the body of horses of different types of higher nervous dialysis

Measurements and body structure indices		Types of higher nervous dialysis							
		strong mobile		balanced inert		strong unbalanced		weak	
		adult livestock (n=11)	young stock (n=5)	adult livestock (n=9)	young stock (n=2)	adult livestock (n=22)	young stock (n=15)	adult livestock (n=4)	young stock (n=9)
height at the withers	M±	164±	155±	164±	160±	164±	160±	168±	159±
	m	1,02	2,46*	1,32	0,50	0,83	0,81	2,72**	1,4
	σ	3,39	5,50	3,97	0,71	3,90	3,14	5,44	4,20
	CV	2,07	3,55	2,42	0,44	2,38	1,96	3,23	2,64
spine length of the trunk	M±	166±1,13	155±2,46*	165±1,27	162±1,00	166±0,87	161±0,68	171±3,12**	159±1,41
	σ	3,75	5,50	3,82	1,41	4,07	2,65	6,24	4,22
	CV	2,27	3,55	2,32	0,87	2,46	1,64	3,65	2,64
breast chest	M±	194±1,92	176±0,30	194±1,50	184±0,50	194±1,33	184±1,41	198±3,07**	179±2,2*
	σ	6,36	8,09	4,49	0,71	6,24	5,48	6,14	6,64
	CV	3,28	4,60	2,32	0,39	3,21	2,98	3,11	3,71
hemorrhage	M±	21±0,20	19,70±0,30	21±0,22	20,25±0,25	21±0,15	20±0,12	21,2±0,48	20±0,26
	σ	0,65	0,67	0,67	0,35	0,70	0,48	0,96	0,77
	CV	3,10	3,41	3,22	1,75	3,34	2,41	4,51	3,85
index format	M±	101,2±0,12	100±0	101±0,26	101,5±0,50	101±0,06	101±0,19	101,8±0,25	100±0,29
	σ	0,40	0	0,79	0,71	0,29	0,74	0,50	0,87
	CV	0,40	0	0,79	0,70	0,29	0,74	0,49	0,86
index of massiveness	M±	119±0,93	113,7±3,13	118±0,76	114,5±0,50	118±0,76	115±0,64	116±3,03	113±0,94
	σ	3,08	7,00	3,12	0,71	3,56	2,47	6,06	2,81
	CV	2,60	6,15	2,31	0,62	3,01	2,15	5,22	2,49
index of chastity	M±	12,8±0,16	12,8±0,10	12,6±0,10	12,7±0,10	12,7±0,07	12,5±0,07	12,6±0,21	12,6±0,13
	σ	0,52	0,22	0,29	0,14	0,34	0,27	0,43	0,38
	CV	4,04	1,72	2,31	1,11	2,69	2,13	3,38	3,00

*P≤0,05, **P≤0,01

Regarding growth, the youngsters of the studied horses exceed the breed standard for all 4 indicators in the groups of strong, balanced inert, strong unbalanced and weak types of higher nervous dialysis at 5, 4, 8, 7, 16, 11, 1.25 and 2.2 cm. In horses with a strong, balanced motive type of higher nervous dialysis, the oblique lengths are increased, the chest and hips are 1.8 and 0.7 cm high, and the height at the withers corresponds to the breed standard (163 cm).

Table 3

Working performance of horses of different type of higher nervous dialysis

Indicator		Types of higher nervous dialysis							
		strong balanced mobile		strong balanced mobile		strong balanced mobile		strong balanced mobile	
		adult livestock (n=11/9)	young stock (n=5)	adult livestock (n= 9/6)	young stock (n=2)	adult livestock (n=22/27)	young stock (n=15)	adult livestock (n=4/8)	young stock (n=9)
work performance	M±m	50,67± 0,41	48,25± 0,25	51,33± 1,09	51,40± 2,09*	49,26± 0,59	48,60± 0,56	47,13± 1,13	47,40± 0,24
	σ	1,44	0,50	2,66	4,67	3,06	1,78	3,18	0,55
	CV	2,83	1,04	5,18	9,08	6,21	3,66	6,75	1,16
P < *0,05									

The analysis of data in Table 3 shows that horses with a strong, balanced inert-type higher nervous dialysis have the highest performance. However, horses with a strong, balanced, mobile type do not fall far short of this indicator from the previous group. The lowest performance indicators are observed in horses with a weak higher nervous dialysis type.

Table 4**Correlation between exterior performance and horsepower performance**

Work performance, m.	Height at the withers, sm	Spine length of the trunk , sm	Breast chest, sm	Hemorrhage, sm
at 18 m.	0,339	0,607	0,452	0,600
at 24 m.	0,136	0,534	0,523	0,545
at 30 m.	0,214	0,203	0,564	0,418
at 42 m.	0,104	0,217	0,232	0,08
at 54 m. and older	0,305	0,383	0,445	0,137

The analysis of Table 4 shows a positive correlation between the working productivity and the basic measurements of the body of horses. The highest correlation in young animals is observed at the age of 18 months. Behind the oblique length of the trunk and a hemline. And the lowest - at the age of 42 months. Behind the hemline

Conclusion:

1. Adult horses of strong, balanced, inert type higher nervous dialysis and strong unbalanced are quite large, are close to the rice breeds under the index of the format (index 101), and the young - the weak type of higher nervous dialysis is rather bony and massive. As for the other two types - a strong, balanced inert and weak, they correspond to the ridge type of rocks.
2. Horses of a strong, balanced, mobile type of higher nervous dialysis for live weight and increments are experiencing rapid growth due to faster origins of all important processes.
3. Horses of strong, balanced, movable and inert types are characterized by better growth and development, as well as work productivity due to the speed of the passage of the main nervous processes, as well as a more calm and balanced temperament.

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