# Science: Integrating Theory and Practice

icet
2014

ISBN 978-0-9856672-7-6

Published by ICET
109 E Lamme Street, Bozeman, MT 59715. USA

Printed in the United States of America

***Science: Integrating Theory and Practice. Part 2.***
Materials of International Conference "Science: Integrating Theory and Practice". February 23-24, 2014.
ICET, Bozeman, MT, USA. 2014.

The large volume of actual problems of the Kazakhstan Science has been examined in the present collection of scientific articles.
This book contains the research publications of Kazakhstan researchers.

playing game logical thinking, the ability to search for answers to these questions, speech, speech etiquette, ability to communicate with each other are developed.

Therefore, the use of role-playing game on foreign language lesson increases the efficiency of the educational process, helps to keep the interest of students to learn the language at all stages of learning.

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## PRODUCTIVE QUALITIES OF KAZAKH TOAD TYPE HORSES OF DIFFERENT LINES

Marat Omar

Productive breeding in the Republic of Kazakhstan is currently practically an independent branch of husbandry which faces specific objectives such as production of horsemeat and kumys. In this connection particular significance has improvement of Kazakh toad type horses by the method of inbreeding selection. High adaptability to pasture maintenance at all times of the year is pertained to toad horses as well as endurance, excellent meat and dairy quality.

Breeding and productive qualities of toad type horses at the stud farm «Altay Karpyk Saidaly Sarytoka» of the Irtysh area of the Pavlodar region of the Republic of Kazakhstan is improved by the way of breeding formed factory line at the base of the selection system and choice of herd horses according to the complex of the selection qualities. In a state farm "Seletinsky", which is a stud farm on productive horse breeding "Altay Karpyk Saidaly Sarytoka", in a period from 1960 till 2010 as a result of the scientifically based selective breeding work a new Seletinsky stud farm type of Kazakh toad horse is created with the three factory lines Brasslet 13-74, Zadorny 51-76 and Palmira 127-78 (approved in 2010) and received the following patent numbers 286, № 287, № 288, № 289.

A great attention is given to reproduction and breeding of replacements. According to the results of valuation of the 2013 specific weight of brood mare makes 45,6% or 470 heads, provided that 333 heads (70,9%) is out of elite class, 96 heads (20,4%) is out of the first class and 41 heads (8,7%) is out of the second class. All the major stud horses (n=57) of the elite class are rather big and possess extend body and a high live weight. Their size and live weight are respectively equal 144-151-179-19,5 centimeters and 481 kilograms. Their intensive use in agriculture has allowed raising breeding and productive quality and consolidating the best economic-useful signs of toad type horses [1].

Adult horses at farms are characterized by good performance measurements and live weight. The average size of mares was equal 142-149-175-18,5 centimeters with the live weight of 457 kilograms. An important link in breeding toad horses was to develop methods to improve the selection of breeding and productive qualities in terms of year-round grazing. Selection of animals in breeding nucleus at the farm was performed according to adaptability to herd keeping with a distinctive body type, sizes, live weight, milking, correct conformation and quality of offspring. Particular attention was given to the selection of parental pairs with regard to their phenotype and genotype. Genealogical analysis of pedigrees successors' line of Brasslet, Zadorny and Pamira has shown that they have a high level of blood accumulation of progenitor's lines. Analysis of changes in the structure of the pedigrees successors of the factory lines has revealed the character of selection direction, compatibility of lines, and accumulation level of hereditary traits of leading founders, which provided obtaining of animals of high quality

Brasslet line 13-74 successfully develops through the descendants of Buket stallions 37-80 – 8 heads (14,0%), Beresta 59-82 – 9 heads (15,8%) and Baikal 73-84 – 6 heads (10,5%). Zadorny line 51-76 develops through the descendants of Zachet stallions 49-95 – 5 heads (8,8%), Zavitok 125-97 – 2 heads (3,5%), Zaton 93-02 – 2 heads (3,5%) and Zalp 13-98 – 3 heads (5,3%). Pamira line 127-78 – develops through the descendants of Parad 39-87 – 5 heads (8,8%) and Parket 53-88 – 14 heads (24,6%). Mares of the factory line Brasslet, Zadorny and Pamira have typical characters for their specific features, which distinguish them among mares of the stud farm «Altay Karpyk Saidaly Sarytoka». Mares of the stud farm line Brasslet 13-74 are distinguished by the right build and solidity, whereas mares of Zadorny 51-76 are characterized by sufficient growth, extended body, deep and wide chest and well-proportioned form. Mares of Pamira line 127-78 at a low growth have a high milk yield and fertility.

In order to establish meat productivity of different line horses on the 10, December 2013 at a slaughterhouse of the stud farm «Altay Karpyk Saidaly Sarytoka» there was slaughter of summer stallions at the age of 2,5 after the autumn glazier (table 1). To provide control slaughter there was selection of animals with close indicators of live weight to the average data according to the lines.

Table 1. Meat productivity of stallions of different lines (n by 3)

| Lines | Preslaughter live weight, kg | Mass of carcass, kg | Carcass yield, % | Contains in the carcass | | | |
|---|---|---|---|---|---|---|---|
| | | | | Meat | | Bones | |
| | | | | kg | % | kg | % |
| Brasslet | 405 | 232,1 | 57,3 | 192,6 | 83,0 | 39,5 | 17,0 |
| Zadorny | 389 | 220,6 | 56,7 | 180,8 | 82,0 | 39,8 | 18,0 |
| Pamira | 365 | 198,2 | 54,3 | 160,5 | 81,0 | 37,7 | 19,0 |
| Not linear | 347 | 182,5 | 52,6 | 142,3 | 78,0 | 40,2 | 22,0 |
| In the average | 376,5 | 208,3 | 55,3 | 169,1 | 81,2 | 39,2 | 18,8 |

According to the results of control slaughter stallions of Brasslet line and Zadorny are characterized as highly productive animals both by weight of the obtained carcass with the 232,1-220,6 kg and on slaughter yield with the 57,3-56,7%.

Animals of Pamira line performed a kind of smaller mass carcass such as 198,2 kg and carcass yield 54,3%, which were received from animals of Pamira line. Nevertheless, in comparison with the non-linear animals the excellence on mass of live weight possess animals of Pamira line with 15,7 kg and according to the slaughter yield 1,7%. The quantity of flesh in carcass of linear horses fluctuated within the boundaries of 81,0-83,0%, bones 17,0-19,0%, and for the non-linear animals made properly 78,0 and 22,0 % [2].

In comparison of carcass and slaughter yield product outcomes of linear and non-linear animals it is seen that horses of stud farm Brasslet, Zadorny and Pamira possess a higher meat productivity and a good slaughter yield than non-linear animals.

In order to study milk productivity of linear mares in the period of summer 2013 there was chosen a group of animals out of every line. During the time of the experiment mares were held in ordinary horse herd conditions of feed and maintenance and were manually milked at the period of ten hours in a day while as for the rest time of the day the dams were held on the pasture together with the colts.

Table 2. Milk productivity of mares

| Lines | | Milk yield, кг | | Milkiness, кг | |
|---|---|---|---|---|---|
| | | Average daily | for 105 days | Average daily | for 105 days |
| Brasslet | | 5,21 | 547,1 | 12,50 | 1312,50 |
| Zadorny | | 5,32 | 558,6 | 12,77 | 1340,85 |
| Pamira | | 5,96±0,20 | 625,8±26,3 | 14,30±0,57 | 1501,50±62,3 |
| Non-linear | | 5,78±0,18 | 606,9±25,4 | 13,87±0,51 | 1456,35±55,8 |

According to the average information of average day yield the milk productivity was calculated according to the mares of various lines for 105 days of lactation. Average day milk productivity of mares of Pamira line appeared higher than for the mares of Brasslet and Zadorny lines. However, as for the milk yield mares of all lines including non-linear responds qualities of elite class instructions of valuation [3].

Thus, mares of stud farm "Altay Karpyk Saidaly Sarytoka" are characterized by a high milk productivity.

In severe environmental conditions of Pavlodar region of Republic of Kazakhstan Kazakh toad type horse is a model of herd horse that is exclusively precious according to the criteria of adaptation, persistence and meat and milk qualities. At a minimum cost of labor and resources in conditions of pasture alimentation at the age of 30 months they provide cheap meat such as horseflesh in addition carcass mass reaches 210-230 kg with the slaughter yield of 57%. Mares of Kazakh toad type give average daily milk of 5,21-5,96 kg and milk production for 105 days of lactation is equal to 1300-1500 kg.

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## QUESTIONS IMPROVE POWER SUPPLY RELIABILITY OF RAILWAY AUTOMATION DEVICES

Amangeldy Omarov, Suleimen Sultangazinov, Gulshe Mashir

Currently, issues of power supply stations EC and other station facilities (GS relay booths), and distillation devices SCL settled in accordance with regulations, instructions have ЦЭ-462, ЦЭ-191, ЦЭ-881, ВНТП-86 These documents are based fundamentally on the requirements RED. However, the power is provided from the combined or special package transformer substations (PTS), and sometimes from their own feeders 0,4кВ [1]. Hauls on electricity provided from special lines: HVL SCL, HVLRE, DL [1, 3]. Automatics station mainline railway transport (electrified posts (EC) and dispatching (DC) centralization) basically get electricity from the three-phase transformer substations with a secondary voltage of 380/220 and earthed neutral. Design of power supply and ground carried out according to the approved regulations and applicable ГОСТам. fundamentally input voltage is as follows. From the transformer substation commissioning guards the property is four-wire cable, which is connected to the terminals of the shield opening switch (ShOS), designed to de-energize the room with the fire hazard. Next, a voltage is applied to the inner four-wire cable prefatorial panel (PP), where in each phase mounted safety devices. Enclosures ShOS, PP panels and other power vanish through the fourth core of the cable connected to the transformer neutral (neutral conductor). Near the sentry service and technical building equipped ear thing connected to ground contours lines in service rooms (relay, braced, generator) that grounding conductors are connected to the housings Cabinets, panels, ShOS remote control-board. Thus, are-grounding equipment. To the same grounding devices (GD) connected devices overvoltage protection. Power devices SCL relays, lights, track circuits, control and operating electric circuit switches) is separated from the three-phase network with earthed neutral isolation transformers, located in a private power panels. Isolation of power supply units SCL continuously monitored alarms grounding specific sensitivity 1 кОм/V. With this voltage applied to the cabinets with hardware and actuators SCL isolated from the ground, which makes it possible to use a single pole tripping circuits. To

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United States of America

# CERTIFICATE

of Participation

Awarded to

*Marat Omarov*

in the International Conference

**Science: Integrating Theory and Practice**

Bozeman, MT, USA

February, 23-24, 2014

icet

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