

Abstracts of articles

AGRICULTURE

UDK 633.85:631.8

CROP CAPACITY FORMING AND SPRING FALSE FLAX SEEDS QUALITY BY USE OF GROWTH REGULATORS

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Keywords: spring, red, regulator, vegetation, yield, contents.

The purpose of research is productivity increasing of spring false flax using the growth regulators in the conditions of Northern Kazakhstan. Experimental studies were carried out from 2012 to 2014 in Kostanai Scientific Research Institute of Agriculture (Republic of Kazakhstan). The experience laid in 4 replicates the following options: 1 – control (no treatment), 2 – Prosper plus, 3 – Zircon. Options treated growth regulators according to the experimental scheme: Prosper plus (1st treatment – phase «3-4 leaves» consumption rate – 0.75 l/ha; 2nd treatment – phase «bloom», flow rate – 1.0 l/ha) and Zircon (1st seed treatment – prior to planting, the application rate – 4 ml/ton; 2nd treatment – phase «3-4 leaves» flow rate – 30 ml/ha; third processing – phase «bloom», flow rate – 30 ml/ha). Sowing of spring false flax produced in the third decade of May with seed rate of 6.0 million germinating seeds/ha. The use of growth regulators allowed the plants to spring false flax shorten the growing season for 1-2 days depending on the conditions of the year, it had a positive impact on the structure of the crop. In the case of Prosper plus growth regulators and Zircon for harvesting plant spring false flax average for 2012-2014 height were 65.2 and 65.3 cm, the number of pods per plant was 471.5 and 498.6 units, the number of seeds in a pod – 12.0 and 11.6 units, the mass of 1000 seeds of the treated cases is equal to 1.83 and 1.89 g, respectively. The most optimal productivity indicators for the spring false flax years of research produced in the version with growth regulator Zircon: average crop yield – 21.2 c/ha (yield increase – 3.7 c/ha), the oil content in the seeds – 36.1%, the yield of oil – 7.7 c/ha.

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BIOECOLOGICAL ASSESSMENT OF GROWING PROMISING VARIETIES OF STRAWBERRY

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Keywords: strawberry, garden, phenology, yield, heavy metals.

The purpose of the research is optimization of regional assortment and of strawberry varieties selection for cultivation by the intensive technology in the steppe zone of Samara region. Studied phenological phases of growth and development, yield, varietal characteristics accumulation of chemical elements (cadmium, lead, copper, zinc, manganese, iron) in varieties of strawberry – one of the most popular crops in the region. The trace element composition of the earth-ship has varietal differences and thus potentially effective method of obtaining ecological periodicals safe products is the selection of varieties. Research carried out within 3 years (2011-2013) in the southern zone of the Samara region in industrial plantations of strawberry traditional varieties (short-day) Honey, Marmolada, Elsanta. The data of phenological observations, from which it follows that the investigated varieties in the southern zone of the Samara region are characterized by different periods of development: Honey grade – an early, Elsanta – medium, Marmolada – very late. It was noted that due to the late timing of flowering, Marmolada cultivar is a high-yield (13.0 t/ha), lower the varieties Elsanta (11.9 t/ha) and Honey (10.9 t/ha). To evaluate the environmental sustainability of the berries by determination of the elemental composition of heavy metals (cadmium, lead, copper, iron, zinc, manganese, iron) by atomic absorption spectroscopy with preparation of samples by the «dry» mineralization. It was revealed that the varieties of wild strawberry Elsanta and Honei are resistant to accumulation of toxicants, the total accumulation of heavy metals in berries of these varieties is 2.0 and 1.6 times lower than the Marmolada variety, respectively.

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THE DIRECT SOWING OF SPRING RAPE IN THE NORTHERN KAZAKHSTAN

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Keywords: spring, canola, direct, seeding, vegetation, yield, output.

The purpose of research is productivity of spring rape increasing in direct sowing in the conditions of Northern Kazakhstan. Experimental studies were carried out in 2015-2016 in Kostanai Scientific Research Institute of Agriculture (Republic of Kazakhstan). The research program includes three-way experience for the study of precursors (factor A), methods of sowing (factor B), variants with and without the use of pre-harvest chemical treatment (desiccation) (factor C) for spring rape. Sowing seeds of varieties carried out with high-quality spring rape Heros produced in the third decade of May with seed rate of 2.5 million germinating seeds/ha. The growth and development of plants of spring rape sown on the herbicidal fallow occurred at 6-13 days faster than sowing wheat stubble. Influence of ways of crop on the duration of the growing season with abundant rainfall was not shown. In the case of a dry growing season crop options with a smaller width between rows matured earlier for 1-3 days. Direct sowing of spring rape on herbicidal fallow relatively stubble predecessor it provides additional yield 4.7-5.2 c/ha. Studying ways of crop between rows of different width it showed the advantage of sowing options with aisles of 23 cm – the excess yield compared with seeding option with aisles of 27 cm was 2.1-2.6 c/ha. Application of desiccation on spring rape 10 days before harvest increased the yield of this crop on 8,6-10,6%. The highest oil yield is marked on the form sowing herbicidal fallow with aisles of 23 cm using pre-harvest desiccation – 9.7 c/ha.

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UDK 634.232

PROSPECTS OF CHERRY TREES GROWING UNDER SAMARA REGION FOREST-STEPPE ENVIRONMENT

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Keywords: gardening, selection, variety, cultivar, horticulture.

The purpose of research is cherry trees cultivation advantages confirmation study and own adaptive cultivars creation for the Samara Region forest-steppe environment. Studies were carried in Samara Research Institute «Zhiguli Gardens» (1985-2011), then at Samara State Agricultural Academy and on the horticultural farm «Kutuluk» of Bogatovskiy District in 2011-2016. The objects of research-study were varieties of cherry trees of different age in the collection of primary Cultivar study. They carried out accounting and monitoring of varieties, guided by the program and the methodology of fruit and berry and nuts cultivar studies. Selection work was carried out under the methodology of fruit and berry crops selection. The studies proved the prospects of growing cherries in the area. They defined assortment available in the collection of adaptive varieties and produced regional varieties (Kalinka, Olechka, Nyusha and Pervinka), established the nature of the trees damage during the winter season, the characteristics of new varieties of cherries, data on productivity have been given and fruit quality evaluation has been done. The best varieties have found to be varieties Bryansk pink (yield-12 kg per a tree), Kalinka (12 kg), Symphony (14 kg), Tyutchevka (17 kg), Fatezh (18 kg). Due to the terms of ripening, varieties were divided into three groups: early ripening (fruits ripen June the 10th-19th), medium ripening (June the 21st-30th) and late ripening (July the 1st-5th). Gascinet, Gronkavaya, Donchanka, Sinyavskaya, Odrinka, Tyutchevka, Olechka, Pervinka possess the largest fruits- the average size of the fruit is 5.5-6.5 g, and some fruits reach a mass of 7.5 g. That has been experimentally proved that in the area many varieties of cherries can be successfully grown. The most favorable microzones for these trees varieties cultivation have been also defined.

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UDK 595.762.12 : 633.111.1

THE INFLUENCE OF WEATHER CONDITIONS AND AGROTECHNICAL METHODS ON THE POPULATION DYNAMICS OF *POECILUS CUPREUS* L. (COLEOPTERA, CARABIDAE) IN CROPS OF SPRING WHEAT IN THE FOREST-STEPPE OF THE MIDDLE VOLGA REGION

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Keywords: ground beetles, dynamic, density, rotation, fertilizer, processing.

The purpose of the research is the use of perilous copper (*Poecilus cupreus*) in regulating the numbers of pests in spring wheat crops. Field studies were carried out on two experimental fields of the Samara agricultural Academy in 1996-2010. Ground beetles were collected with using pitfall traps. *P. cupreus* annually is part of the dominants and overdominants among the ground carabid in crops of spring wheat. In June the highest dynamic density and the degree of dominance of *P. cupreus* were recorded in wet (1997), mildly arid and arid (1999, 2002, 2004, 2009) years. The Pearson correlation coefficient between dynamic density of ground beetles in June and temperature in May was $-0,555$; between dynamic density of ground beetles and rainfall in July was $0,628$. In May and June, the highest dynamic density and the degree of dominance of *P. cupreus* were observed in crop rotation with the field without sowing, in July – with the field with early harvest crop. High doses of mineral fertilizers under the main tillage of the soil and before sowing of wheat contributed to the decrease in dynamic density of *P. cupreus*. In June, the highest dynamic density of *P. cupreus* was observed in wheat with tillage to 6-8 or 10-12 cm, In July there was a move to areas with plowing at 20-22 cm, with a loose top layer, favorable for larval development.

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THE INFLUENCE OF ABIOTIC CONDITIONS FOR CORN PRODUCTIVITY IN THE REPUBLIC OF MARI EL

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Keywords: corn, hybrids, nutrition, yield, Extrasol.

The purpose of this research is to increase the grain yield of maize in agro-climatic conditions of the Central zone of the Republic of Mari El. As the object of study was zoned early maturing maize hybrid Cascade 166 ASV recommended for cultivation in the Republic of Mari El. The soil of the experimental area are sod-podzolic, medium loam type, with plate-lumpy-dust structure, with a pH close to the optimum value for corn plants with a low content of humus and high concentrations of phosphorus and potassium. Meteorological conditions of the vegetative periods of the study were close to long-term indicators, with minor variations at different periods of growth and development of plants. Surveys and observations were carried out with under the methodical recommendations for conducting field experiments with cereals. The optimal norms of mineral fertilizers doses and the planting rates of corn seeds were defined. The proposed method of increasing the of maize grain yield is by use of plant growth regulator "Extremal", which exceeded the control at 3%. The experiments showed that significant impact for the value of the corn grain yield had density of sowing. The highest yield was found in the control variant with sowing density of 60 thousand pieces/hectare. The use of the proposed methods of farming allows to obtain consistently high yields of corn grain (more than 6 t/ha) in agroclimatic conditions of the Republic of Mari El, thereby significantly expanding the geography of cultivation of valuable agricultural crops.

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THE DEFEAT OF SORGHUM WITH BACTERIAL LEAF STRIPE (*PSEUDOMONAS ANDROPOGONIS*) IN THE FOREST-STEPPE OF THE AVERAGE VOLGA REGION

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Keywords: sorghum, bacterial blight, flea beetle distribution, harmfulness.

The purpose of the research is to response the methods against striped leaf spot (*Pseudomonas andropogonis* Smith) grain and sugar sorghum. Field studies were conducted at the experimental fields of the Volga Research Institute of selection and seed production in 2010-2015. The objects of research were one cultivar of sweet sorghum (Kinelskoye 4), two cultivars of grain sorghum (Premiera, Ros'), bacterial leaf stripe. Field and laboratory experiments and observations were carried out according to standard techniques. It was established that the bacteria *P. andropogonis* overwinter mainly in sorghum seeds. After seeding and the beginning of plant vegetation bacteria extend through conducting tissues into stalks, leaves, formed and ripening seeds. During plant vegetation they widely extend also by means of rain and wind from bacterial exudates on the bottom party of leaves and infect plants through mechanical damages of leaves by flea beetle *Phyllotreta vittula*. It is established for the first time. Droughty conditions of May and June, considerable quantity of precipitation and cool conditions in July increased the incidence and intensity of disease development. In the physiological maturity stage the Intensity of development of bacterial leaf stripe in strongly droughty 2010 year has made about 60%, in 2011 with damp May and very damp June – 9-10%, in 2012 with close to average long-term conditions – 36-46 %, in 2013 – 26-35%. Yield losses due to bacterial leaf stripe were estimated to 30%, there was also a maintenance reduction of proteins, sugars, the major amino acids in the sorghum grain.

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UDK 632.7 : 633.11

WHEATEN TRIPS'S (*HAPLOTHRIPS TRITICI* KURD.) INFLUENCE AND HARMFUL TURTLE (*EURYGASTER INTEGRICEPS* PUT.) FOR TECHNOLOGICAL INDICATORS WINTER WHEAT OF GRAIN IN THE FOREST-STEPPE OF THE SAMARA REGION

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Key words: grain, quality, damage, degree, grade, indicators, analysis.

The purpose of researches is to identify resistant varieties of winter wheat to damage by harmful bug and wheat thrips in forest-steppe of Samara region. For the analysis used grain of grades the Volga region Field, Kinelsky 8 and Konstantinovskaya of a harvest of 2013-2015. In the weight relation added the damaged grain for receiving options of experience to the intact grain. The research on influence of various degree of damage of grain of winter wheat by a harmful turtle is given in article (*Eurygaster integriceps* Put.) and wheaten trips (*Haplothrips tritici* Kurd.) on grades the Volga region Field (Velyutinum), Kinelskaya 8 (Lutescent) and Konstantinovskaya (Eritrospermum) on technological indicators of composition of grain – a gluten. The grade the Volga region Field, with loss of a gluten from 1.2 to 4.6% on options with damage of grain from 3 to 10% was most sensitive to grain damage by a bug by a turtle (*Eurygaster integriceps* Put). Konstantinovskaya and Kinelskaya 8 carried grades to so-so steady and decrease in a gluten made 0.4-3.2%. The grade the Volga region Field (a version Velyutinum), with loss of a gluten from 0.5 to 1.6% on options with damage of grain from 3 to 10% is most sensitive to grain damage by a wheaten trips. Grades Konstantinovskaya and Kinelskaya 8 belonged to steady, decrease in maintenance of a gluten made 0-1.2%. The maximum maintenance of a gluten is noted in the intact grain of a grade Konstantinovskaya (35.2%). The best indicator of IDK was observed at the intact grains and damaged for 3% of a grade Kinelskaya 8 (79-86 units). The received results can be increased in genetic potential of the existing grades having in particular resistance to bug used in selection work with the purpose. It will allow to increase efficiency of use of the most qualitative and steady grades under production conditions that in turn, will lead to decrease in losses of quantity and quality of grain as in field conditions, so at storage.

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TECHNOLOGY, MEANS OF MECHANIZATION AND POWER EQUIPMENT IN AGRICULTURE

UDK 631.331

RESULTS OF FIELD SURVEYS OF EXPERIMENTAL SEEDER WITH THE BOBBIN AND BAYONET SOWING DEVICE

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Keywords: bobbin and bayonet, sowing, device, experimental, seeder.

The purpose of research is seeds distribution uniformity increasing in the row for grain crops sowing due to enhancement of the bobbin and bayonet sowing device. The bobbin and bayonet sowing device established to selection seeder of SSNP-16 is intended for grain crops seeds sowing in case of their selection production. For determination of high-quality parameters of an experimental seeder it is necessary to carry out field trials. Carrying out field surveys is based on the traditional program and technique of field trials. The program includes: evaluating instability of seeds sowing, research of seeds and plants distribution uniformity in the row, research of emergence of shoots dynamics, determination biological productivity from pilot crops. Researches of assessment of seeding instability showed that the experimental seeder showed higher rates in comparison with basic seeder of SSNP-16, and also compliance to agro-technical requirements. Instability of seeding of experimental seeder doesn't exceed 3%. Researches of unevenness of seeds sowing and plants distribution in the row showed that the experimental seeder has higher quality of seeding, than at a basic seeder of SSNP-16. The coefficient of intervals variation between seeds makes respectively 53.8 and 64.5%, between plants of 58.1 and 72.3% respectively. The observation analysis of plants growth showed higher intensity of growth at the plants seeded by an experimental seeder than at basic seeder. The analysis of biological productivity showed increase in productivity of wheat on 14-19% at an experimental seeder in comparison with SSNP-16 seeder.

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Keywords: drying, grain, energy saving, installation, contact, type.

The purpose of the research is development, scientific substantiation and introduction in manufacture the designed for small businesses energy-saving, environmentally friendly technical means of drying grain that meet the requirements of modern Russian agrarian production. Currently, the grain drying technology is imperfect. Therefore, the development, scientific substantiation and introduction of energy-saving, environmentally friendly plants for drying grain, the relevant requirements of the modern Russian agricultural production is relevant and important scientific and technical challenge of significant importance for the development of the country. To solve this problem, we propose to use contact-type installation for grain drying, which is designed in accordance with the patent of Russian Federation № 147016. For an objective assessment of the research object as an optimization criterion adopted specific energy consumption per 1 kg of evaporated $q_{y\partial}$, kD/kg moisture qud, and independent factors: $x_1(t)$ – the average temperature of the heating plate, deg, °C; $x_2(\tau)$ grain processing time to install. Study for the installation of grain drying was performed on a grain of barley varieties Lacombe. After processing the results of the experiments was obtained regression equation in natural and encoded values of the selected independent factors which characterize the influence of these factors on the optimization criterion. Upon receipt of the mathematical models of the drying process performed their analysis using the two-dimensional cross-sections. The analysis revealed that the minimum unit cost of energy in the drying process of corn 4322,1 kD/kg achieved under optimal values of the independent factors of the drying process: $t_{gr} = 70^\circ\text{C}$, $\tau = 40$ s. Moreover, the convergence of the theoretical and experimental research has at least 94%. Thus, as a result of theoretical and experimental studies designed installation revealed that the optimal values of the independent factors specific energy, which is 1.3 times less compared to commercially available industrial plant for drying grain, in particular the setting ACT-1.

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UDK 338.436:636.2.034.003.13 (470.325)

EXPERIMENTAL RESEARCH OF THE COMBINED DEVICE FOR MASSAGE OF HEIFERS UDDER

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The purpose of the research is substantiation of actual trends in improvement funds for the organization of training heifers to lactation. Experimental study of devices for pneumonias-soot udder of heifers (UPVN) single chamber type are made using a specially developed laboratory bench, including vacuum line of a milking machine, artificial udder and re-Gastronome-recording equipment. Implementation of the experiment with a matrix of almost D - optimal plan of type Bn and the statistical processing of the results allowed us to obtain equation of second order describing the dependence of the pressure (vacuum) in the massage in the bell strokes of massage and the unloading from the free volume of the bell, the frequency of the pulsator, and the diameters of the drainage holes and the inlet bell. Analysis of the data shows that the design UPUN has a fundamental disadvantage associated with the presence of drainage bell holes. This hole does not allow to provide the necessary range of variation of air pressure in a massage in the bell strokes of massage and relief. As the findings in the work performed can be recommended to the exclusion of constructive-technological scheme UPVN drainage holes in the bell, and the increase in the amplitude of pressure change in the bell with strokes of massage and the load. In the step of unloading should abandon the residual vacuum and replace it at atmospheric pressure. Physiologically reasonable vacuum effect on the mammary gland of heifers can be implemented with the help of massage device, which has separate control over the intensity of pneumatic and mechanical components of massage.

Keywords: combined, massage, drainage, hole, pulsator, model, pressure.

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VETERINARY MEDICINE AND ZOOTECHNICS

UDK 619.636.0.82

GROWTH, DEVELOPMENT AND MEAT PRODUCTIVITY OF YOUNG SHEEP OF AKZHAIKSKOY MEAT-WOOL BREED DEPENDING ON THE LINEAR SUPPLIES

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Key words: growth, development, productivity, mass, line, growth, carcass.

The purpose of research is improving the efficiency of Akzhaik meat-wool sheep breeding (ACSM). Akzhaik meat-wool breed lambs were the material for the study. Among newborn lambs line BALI-1395 and ZKTAU-7082 two 30 heads in each groups were formed according to their linear supplies. In result of the conducted researches it was established that lambs line BALI-1395 at birth had 4.38 kg live weight, 0.41 kg more than lambs from lines West Kazakhstan agrarian technical University-7082, indicating more active development in the fetal period. A study of indicators of meat productivity and meat quality line of rams BALI-1395 and West Kazakhstan agrarian technical University-7082 Akzhaik meat-wool breeds of sheep showed that rams line BALI-1395 by the main indicators of meat productivity exceed the line of the West Kazakhstan agrarian technical University-7082 at the age of 8 months. To assess the physique of young plants were taken measurements and calculated indices. Comparative data show that lambs line BALI-1395 have some superiority over the lambs line West Kazakhstan agrarian technical University-7082. On the basis of the conducted researches on studying of growth and development of young growth of meat production in 8-month age revealed that live weight at birth, at weaning and at the age of 8 months, the best performance was characterized by rams line BALI-1395, their superiority over their peers line West Kazakhstan agrarian technical University-7082 10.7; 17.1 per cent. The same advantage is retained in 4 and 8 months of age. In connection with what is recommended to use Kazakh sheep meat-wool breed, the lines of BALI-1395, for high-quality lamb in the conditions of Western Kazakhstan.

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Keywords: Selemix, natural, mineral, sorbents, anemia, osteodystrophy, rickets.

The purpose of research is improvement of the complex treatment and preventive measures when violations of mineral metabolism of farm animals. To determine the impact of the Selemix drug for the productivity of different technological cattle groups, and young pigs, considered the possibility of farm animals mineral metabolism disorders correction when using the drug Selemix on the basis of natural mineral compounds. The performed studies have shown that the investigating drug increases growth in calves and piglets by 8.2 and 7.5%, respectively, contributing to an increase in milk production in cows by 5.2%. The drug has an antanemic effect, increasing red blood parameters, i.e. RBC by 5.7%-14.5%, hemoglobin level by 8.1%-31.6%, and hematocrit by 7.8%-20.6%. Phosphorus and calcium metabolism parameters were stabilized, with increase in total calcium by 13.6%-50.0%; phosphorus level was stabilized, background hyperphosphatasemia and, therefore, calcium-phosphorus ratio was normalized; initially elevated alkaline phosphatase activity was reduced more than twice. The results suggest the possibility of using Silimix for correction of mineral metabolism disorders in calves and pigs with rickets, as well as in cows with nutritional osteodystrophy.

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MEAT QUALITY OF BLACK AND WHITE BREED YOUNG CATTLE AND HYBRIDS WITH LIMOUSINE

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Keywords: productivity, black-and-white, Limousin, hybrids, calves, castrated.

The purpose of this research is increase beef production by different methods of crossing. Comparative evaluation of meat efficiency of bull-calves and eunuchs of black-motley breed and its hybrids with half-limousines. For research Mature (for the third or fourth calving) cows of black-motley breed were selected. Breeding stock according to the scheme experience inseminated with the sperm of high-class bulls of the Limousin breed. From the resulting offspring 4 groups of calves at 15 heads each were formed. Bulls of the III and IV groups at the age of 2 months were castrated. The first group of calves and the third group of castes-preparations consisted of purebred animals of black-motley breed, and the second and fourth, respectively, half-breed bull-calves and eunuchs in the Limousin breed. The highest growth rate differed bulls experienced groups, average daily gain from birth to 21 months of age were obtained from crossbred bulls – 887 g, which exceeded the corresponding figures of black and white bulls 45 g (5.3%; $P < 0.05$), purebred and crossbred castrated, respectively (82 g, and 10.2%; $P < 0.001$) and 39 g (4.6%; $P > 0.05$). 15, 18 and 21 months of age from the young all groups received heavy mascara with favorable ratio of dry matter, protein, fat in the meat part and high energy value. While hybrids of number of quantitative and qualitative indicators of meat productivity were superior to purebred bulls and neuter. It is established that crossbred animals of number of quantitative and qualitative indicators of meat productivity were superior to purebred peers, that is indicative of a important reserve in beef production.

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INNOVATIVE METHOD OF HOLSTEIN HEIFERS GROWTH AND DEVELOPMENT INTENSITY NCREASING

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Keywords: deadwood, calving, weight, growth, index, ratio.

The purpose of researches is increasing of rearing uality indicators in the conditions of intensive technology of milk production. Heifers, obtained from three groups of high producing cows were the material for the study of milk level production

5500-6500 kg of milk. Control of the growth and development of heifers was conducted by examining data monthly weighing and taking linear measurements. To characterize the reproductive ability of heifers were studied the indexes of age and live weight at first insemination; fertilization in the first, the second and subsequent sexual hunting; the index of insemination. All the material processed by variation statistics for G. F. Lacina; differences of the compared parameters were tested for accuracy using the student's t-test, using software package Microsoft Excel. The length of the dry period of cows affects the growth and development of calves obtained from them. Revealed that the duration of the dry period in cows-mothers 80 days is the optimal level of milk productivity of cows 5500-6500 kg of milk, which contributes to increased average daily increase of 15-22% in heifers, compared with their peers, in which the duration of the dry period cows mothers was 60 days. Age and live weight at first insemination in heifers obtained from dam cows, with the duration of the dry period of 80 days was 18.2 months with live weight of 420 kg. On the basis of the conducted research is proposed to optimize the duration of the dry period in highly productive cows in the conditions of intensive technology of production up to 80 days. However, it is necessary to take into account the technology of feeding and keeping of cattle, the cultivation technology of rearing and breed animals.

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UDK 637.04: 636.235.21.087.7

QUALITY INDICATORS IN THE APPLICATION OF MEAT GROWTH STIMULANTS

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Keywords: amino acid, a stimulant, butts, food, slaughter.

The purpose of researches is increase of meat productivity and quality of beef from steers black-motley breed with the use of the Nucleopeptide drug in the form of injection. Studies conducted in SPK-collective farm «Geroy» Chekmagushevsky district in the Republic Bashkortostan. To conduct scientific and economic experience was formed 4 groups of calves of black-motley breed at the age of 6 months, with 10 heads each. Groups were formed on the basis of the groups-analogues. Animals of group II were administered by Nucleopeptide drug subcutaneously in dose 20 ml, and group III – 25 ml and group IV – 30 ml. Calves of the first group was the control and the drug is not administered. The research showed that, there are some bulls between-group differences in dry matter content (fat and protein) to the longest muscle in the back. The bulls I (control) group, protein content in longissimus muscle in the back, inferior to the peers group II 0.40%, III group – 0.80%, group IV – 0.50%. The effect of natural biostimulator Nucleopeptide for the technological parameters of meat from bull-calves of black-motley breed was studied. Analysis of the data indicates the dominant animals of the experimental groups for the calves of the control group as for the energy content of 1 kg of muscular tissue, and the energy contained in all the muscles of the carcass. So the animals of group I was inferior to peers of the second group, the magnitude of the first rate of 71.0 per kJ (1.58%), the second by 49.7 MJ (6.20%), III group, respectively 332.0 kJ (7.38 per cent) and 179,4 MJ (22 and 36%), and group IV on 236,0 kJ (5.25%) and 122,8 MJ (15.31%). It is proved that the stimulator Nucleopeptide contributes to beef with higher culinary and technological properties.

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