

**Moskalets V. V., Lavrov V. V., Moskalets V. I., Pisarenko P. V., Moskalets T. Z.** Variety of winter triticale «Slavetne»: origin, ecological sustainability, agrobiotic potential, source material // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 1–13.

Agrobiological characteristics of winter triticale variety «Slavetne» are described. This variety was sorted out through the individual selection from hybrid combination («Augusto» x «Jaguar») x № 1364/93 according to quantitative (grain yield, number and weight of grain per spike, weight of the grain, 1000 grain weight) and qualitative (protein content, «raw» gluten) parameters of grain yield, ecological sustainability to pathogens of phytopathogenic diseases, abnormal phenomena of winter-spring and summer periods, lodging. On the basis of «Slavetne» variety more frost resistant line «Slavetne pokraschene» was received by individual selection. The ability of winter triticale «Slavetne» to provide high yield at the sod-medium sandy loam and sod-podzolic sandy soils of Eastern and Central Polesie, the deep black soil and black soils of typical Northern and Central Forest-Steppe of Ukraine was proved.

**Zhemela G. P., Shakaliy S. M.** The influence of mineral nutrition on the elements of productivity and quality of winter wheat // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 14–16.

During the studies the regularities of mineral nutrition influence on the formation of the structural elements of productivity and quality of winter wheat were ascertained. The determining factors for crop productivity are the processes control of growth and development – the most important manifestations of vital activity. It was found out that the most rational fertilizer application standard – N85P96K51 + N30 effectively improved the rate of crop structure. To the formation of the high-yield crops also affect presowing seed corn processing and the level of fertilization with Basfoliar 36 Extra.

**Pariy F. M., Androshchuk M. P., Trush S. G.** Productivity of experimental sugar beet hybrids created on the base the improved sterile form and multiseedling pollinators // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 17–19.

Studying of parent components is an important direction for research. Using MC 94 line as a mother form makes it possible to create heterosis hybrids with high productivity. The authors investigated the influence of the improved in the complex of selection-genetic features sterile line as to their commercially valuable characteristics in the process of creating sugar beet hybrids. Testing of the received hybrids was conducted and their productivity indices were evaluated. MC 94 line is recommended to be involved in the selection process for the formation of highly productive sugar beet hybrids of new generation.

**Borysenko L. D., Kataieva T. E.** The prospects of adaptive selection of early onion sorts // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 20–22.

The results of many years investigations of selected onion material in two geographic locations are introduced in this article. After environmental tests were done a number of promising early-maturing lines of short (up to 100 days) vegetative period onions, as well as high-yield samples, cellaring suited and biotic and abiotic factors resistant were assorted. The efficiency of selections on morphological features which should be expedited productivity choice was proved. The plants from the sources that had the greatest adaptive potential due to agronomic traits complex were chosen for the further working.

**Tymchouk S. M., Martinyuk N. M., Pozdnyakov V. V., Tymchouk V. M., Antsiferova O. V., Charchenko Yu. V., Charhenko L. Ya.** Genetic analysis of general characters of granular starch quality in the maize based on the mutation SU<sub>2</sub> // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 23–26.

It has been established that the general characters of granular starch quality in the maize based on the mutation SU<sub>2</sub> were notable as having the quantitative nature. Inbreds – carriers of this mutation differ from each other in the effects of combining abilities for the starch granules diameter, starch in the grain and amylose in the grain contents. The starch granules diameter and starch content in the grain were inherited by the carriers of mutation SU<sub>2</sub> according to the type of positive over-dominance, and the content of amylose in the starch – according to the type of incomplete dominance with the significant contribution of additive effects to the dispersion.

**Kovalenko N. P.** The development and improvement of crop rotations in conditions of the insufficient moistening of Ukraine: historical retrospective view // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 27–32.

The views of the known farmers to the origin and forming of scientific bases of development of crop rotations in the systems of agriculture, history of their development and improvement are reflected. Influence of possibility of optimum satiation of crop rotations with crop on the level of fertility of soil, watering and nourishing, and their productivity is analyzed. In conditions of the insufficient moistening of Ukraine a positive action of fallow (land) on the improvement of the soil watering in crop rotations is marked.

**Bagan A. V., Yurchenko S. O., Shakalii S. M.** Changeability of posterity of different morphological parts of winter wheat ear according to quantitative signs // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 33–35.

Quantitative signs of posterity of top part, middle part and bottom part of winter wheat ear are analyzed. The level of ear length variation, quantity of ears and grains from an ear, mass of ear with grains, 1000 grains mass are established by posterity of different morphological ear parts of examined varieties. Effectiveness of soft winter wheat genotype selection according to ear length and ears quantity is pointed out. The posterity of the middle part of winter wheat varieties is sorted out by productivity and low level of quantitative signs variation.

**Ninieva A. K.** Inheritance of characteristics of ear productivity in hybrids between spring spelt (*T. spelta* L.) and soft spring wheat // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 36–41.

Levels of display and inheritance of productivity traits in early generations of the hybrids between spring spelt and spring soft wheat in comparison with parental forms, relationships between the traits, impact of weather conditions on these were revealed. In the F<sub>1</sub> hybrids, the hybrid depression most often occurred. In the F<sub>2</sub> hybrids, the plants that exceed the best parental form for all the traits of ear were detected in all combinations in the year with more favorable conditions for growth.

**Berezovskyy M. D., Vashchenko P. A., Khat'ko I. V.** A genetic trend in a herd of pigs of farmbreeding type «Bagachansky» of the Large White breed // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 42–45.

During 2002–2010 the estimation of breeding (genetic) value of pigs of farmbreeding type «Bagachansky» of the Large White breed was conducted by BLUP method. On the basis of obtained data the genetic trend in a population for basic productive traits was characterized. It was established that the phenotypic estimation of high heritability traits vary proportionately with genetic trend. There are also some differences, for example, the animals of a foreign selection which were used in 2004 could not show up their genetic potential because of housing conditions and feeding.

**Dorotyuk E. M., Prudnikov V. G., Kolesnik O. I.** Growth and development of bull-calves of different genotypes of created Ukrainian Angus meat breed // News of Poltava State Agrarian

Academy. – 2012. – № 4. – P. 46–48.

The results of research of growth and development of bull-calves of different genotypes of created Ukrainian Angus meat breed are presented. It is set that bull-calves are capable to keep the high average daily increase of living mass at the level of a 1000 gramme and more at the slow accumulation of fat during great while. At the intensive growing the bull-calves of the new created Ukrainian Angus meat breed in all age-old periods substantially excelled analogues which are widely spread in Ukraine. At the age of 18 months they attained living mass of 570 kg, against 425 kg of those in control group.

**Birta G. A., Burgu Y. G.** Fatten, butchering and lard and flash qualities of pigs of different areas of productivity // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 49–51.

To be succeeded in commercial output of meat in our country nowadays (and aforesaid as well) it is very important to pay attention to intensification of pig farming industry mainly pointed at increasing the actual productivity of animals, reducing cost price and improvement of the pork quality. Of all effective techniques that contribute to the high pigs productivity, a special place belongs to implementation of science-based farming system, which is based on the maximum use of available in each region breeds, specialized types and lines, precise connection between breeding and commercial farms, the rational usage of heterosis phenomenon and provision optimal conditions in animal feeding and keeping as well.

**Grechka G. M.** Features of viability of melliferous bees with a beehive queen bee // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 52–54.

Biological signs of spring viability of families of bees with a beehive queen bee are characterized. In particular, by complex testing of winter hardiness it is established that the planted swarms possess the highest potential of spring viability. The difference of total number of their points, points of the families returned to a working condition and parent swarms, to unexcited swarming made respectively: 44,4 – 33,3 – 11,1 %. Also smaller easing of force for 45 %, quantities of the spent forage on 15 and bigger number of brood in the first spring account for 9 % is noted.

**Subota Y. V., Grigorkiv L. N.** The influence of drone presence in bee families on the drone brood rearing // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 55–57.

The incubation of drone brood by bees was studied. It was elicited that excision of drones from the family during intensive development in June, July, increases the number of drone brood. The growth of bee brood rates from 4.0 % till 7.6–11.7 %, besides the drones development is 30 days longer. The Ukrainian Steppe breed bee-families actively correct the number of drones in swarm. So, after drones were completely withdrawn from the family, they were found again three-four days later much more in number than was the brood itself. It is possible that drone absence welcomed strangers to the bee-family.

**Shamro L. P., Shamro T. N.** Age-related changes in biological characteristics of worker bees // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 58–60.

The researches on the age-related changes of protein content in worker bees' hemolymph, the grade of development of their pharyngeal glands and fat body were done. They showed that the potential supply of protein in hemolymph of late summer bees generation was not reduced with the age as in early summer bees generation and remained fairly stable. During the autumn period, the pharyngeal glands and fat body of bees are in developing and their grade reaches 3.56 and 2.65 points respectively what is typical for them in preparation for the wintering.

**Emets E. I.** Evaluation of provision of fully pollination of major entomophilous crops with bee families // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 61–64.

The state of beekeeping and bee families, provision of basic entomophilous pollination of crops was researched. It is established that Ukraine continues the trend to reduce the number of bee colonies. In 2011, as compared with the past, it decreased by 0.2 million and amounted to 2.9 million families. For full entomophilous pollination of main crops there must be at least 5.2 million bee colonies, minimal need for which is provided at 56.6 %. Existing honey plants do not provide bee-farming with food supply in full. It is necessary to increase the sown area of sunflowers as well as other melliferous crops.

**Nebylitsa N. S., Novytskyi V. P., Myronchenko V. G.** Selection and genetic evaluation of pig origin of the English company «BPB «Zolotonishskiy» on their own productivity indicators // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 65–68.

It is noted that when working with animals of specialized breeds of imported origin, score on a comprehensive class, so far, is very little informative. A high correlation coefficient ( $r = -0,825$ ) between the values of evaluation indices Eve-il and Er has been set. Evaluation of rearing pigs on the basis of the index is more accurate than estimates for the independent level and rank. In particular, the result of the research found that in terms of evaluation indexes among the animals of Large White breed of English origin, boars were significantly superior to their peer sows.

**Shapovalov S. O., Al-Bazi M. K.** Protein content and cheesemaking quality of different breeds of milk cows // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 69–73.

The article describes the materials of study of protein and cheese making quality of milk from cows of three breeds: Simmental, Red and White and Black and White. The tasks of the research was to determine the fractional composition (mass fraction of casein and its fractions, albumin and globulin) and amino-acid composition of proteins (the ratio of essential and nonessential amino acids, their scores, the definition of limiting amino acids in the protein of milk of each breed), the rate of coagulation and quality of milk clot formed under the action of rennet.

**Dedova L. O.** Rating of growth of heifers of different lines of created simental meat breed // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 74–75.

The results of researches of growth of heifers of different lines of created simental meat breed are given. It is proved that linear heifers differ from others with live weight which testifies the capacity for high meat productivity. Taking into account the modern requirements of market economy, the major direction of a selection presents creation of a new Ukrainian simental meat breed on the base of modern simental meat breed, capable during great while to keep high intensity of growth at the slow accumulation of fat.

**Kirichko B. P., Skripka M. V., Kirichko E. B.** The dynamic of opsono-phagocytic reactions of cows as a result of applying of ecologically clean bio solute «Poltavsky bishofit» // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 76–79.

This article is based on the researchers' results of the dynamic of opsono-phagocytic reactions of the healthy and Subclinical Mastitis sick cows with external application of ecologically clean solute «Poltavsky bishofit» at different terms of use. Bishofit is the biological mixture of salts from the dried old Perm Sea. Opsono-phagocytic reaction is extremely important for the organism resistance. The research found out the increase of neutrophils' phagocytic activity, the increase of Phagocytic index and Phagocyte number. The most effective, due to the data of opsono-

phagocytic reaction, was application of the solution «Poltavsky bishofit» within the intervals of 12 and 24 hours.

**Zamaziy A. A., Kambur M. D.** Determination of the functional state of organism of new-born calves // News of Poltava State Agrarian Academy. – 2012. – № 4. – С. 80–84.

The results presented in the article indicate that calves are born with different levels of functional state of the organism. Prenatal underdevelopment of animals are formed under physiological malfunction on the basis of insufficient oxygenation of the body. The presence of constant contact with the lungs of amniotic fluid can be considered a priori that the qualitative composition of the amniotic fluid can judge the state of the fetus, «maturity SSL» and processes in it, as evidenced by the number of investigated parameters. In this regard, we proposed a 20-point scale of diagnostic tests to assess the «maturity» of the lungs, and therefore the functional state of newborn calves and the degree of influence of hypoxia on the fetus.

**Yevstafyeva V. A.** Toxic properties of insectoacaricidal preparation of ektozan // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 85–87.

The data on the toxic properties of the insectoacaricidal preparation of ektozan have been received. The drug in therapeutic concentrations (0.13 % aqueous solution) showed no local irritation and resorptive effect on two species of animals (rabbits, rats). As for the local effect on the skin of laboratory animals under a single application ektozan was referred to the zero class and characterized by the absence of irritation. In the group of white rats an anxiety, weak erythema and considerable itch were registered in one animal in 15 minutes after treatment with this preparation, which disappeared in 30 minutes after their appearance.

**Panikar I. I., Skripka M. V., Kirichko B. P.** The value of the deterioration of ecological environment in the etiology of immunosuppressed states of living organism // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 88–89.

Chemical contaminants of air development lead to hyper-, hypo- or normochromic anemia, reticulocytosis, and further retykulotsytopeny. Morphological physiological properties of erythrocytes are changing. Osmotic resistance is reduced, SOE is increasing. Leukocyte sprout responds with leukocytosis, morphologic changes of leukocytes, among which the leading place is occupied by lymph- and eozynopeny. Reduction of resistance at the cellular level is an indicator of lower resistance of the whole organism.

**Melnyk O. P., Druz N. V.** The analysis of biomorphological features of coxofemoral joint of some ciconiiformes // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 90–94.

This article presents the analysis of biomorphological features of hip muscles of representatives of ciconiiformes (red heron, black stork, bittern). It was found that the degree of differentiation of hip muscles of these representatives is caused by walking type of bipedal locomotion and by biomorphological static characteristics, which in turn have influence on the degree of every hip muscle development of this species. Also the degree of development of coxofemoral joint muscles and its muscle groups was determined. It was determined that the mass of the extensor muscles of the hip is more than the flexors. This suggests that the ratio of the hip flexors in this species of birds to the extensor depends on keeping the hip in the gravitational field of the Earth in a certain position during static and locomotion.

**Kruchinenko O. W., Prus M. P., Shabalin A. N.** Therapeutic and economic efficiency of anti-helminthics in treatment of gastro-intestinal helminthiasis of cows // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 95–97.

The research results of therapeutic and economic efficiency of

albendazole Ultra 10%, kombitrem and rafenzol are shown below. It was found that by simultaneous parasitizing of paramfistom, dikrocelij, fasciol and strongilat in the digestive organs kombitrem and rafenzol show 100 % extens-and-intenseffect, and albendazole Ultra 10 %, respectively 90 % and 75 %. Deworming of cows provides the growth of milk productivity – when treated with Ultra 10% (albendazol) milk productivity is 14.3% higher, with kombitremom – 17.6% and rafenzolom – 20.6%. The selling of milk from the cows of three experimental groups gave additional 1038 UAH profit.

**Shcherbakova N. S.** The application of immune stimulators for vaccination of pigs against Swine erysipelas (Erysipelas suum) // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 98–100.

Some vaccines do not cause when applying the proper immune response. It depends on the level of resistance which can change from many things, including the age of the animals, feeding conditions, effect of chemical, physical, biological and other factors on the body as well. To enhance the immune response of the body and to correct immune status of the animals, biogenic stimulators are applied. Biogenic stimulators modify metabolic and energetic processes in the body and promote enzymes. The studies on the potential using of biogenic stimulators for vaccination of pigs against Swine erysipelas by means of inactivated vaccines were done. It was ascertained that the application of these drugs in the vaccination of animals enhances erythropoiesis, the number of B- and T-lymphocytes and furthermore promotes phagocytic activity.

**Korchan I. M., Korchan N. I.** Comparison of the effectiveness of the methods of cultivation and selection of Strongilata larvae in goats' feces // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 101–103.

The article presents a comparative assessment of cultivation and selection methods of gastrointestinal Strongilata larvae in the goats' feces: according to A. Petrov, W. Gagarin – in depending on the feces moistening method; and cultivation and selection of animals' helminths larvae by means of using polypropylene cups. The most effective, sanitary safe and economically profitable way of Strongilata larvae cultivation proved to be the method of polypropylene cups with moistured by Sulfanilamide solute (0.1 %) samples.

**Klymenko A. S.** Therapeutic efficiency of «Refektin» and «Tektin super» by Fascioliasis and Paramphistomatosis of cattle // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 104–106.

The comparison of therapeutic efficacy of anthelmintic «Refektin» and «Tektin super» – the products of Arab companies Aviko and Mobecko-vet, which are recently open for sale all over Ukraine and also recommended for treatment of farm animals, gave following results: the researches found out that by mixed Fasciola hepatica – Paramphistomatata infestation of cattle, «Refektin» in therapeutic dose provides 100 % extens-and-intenseffect, «Tektin super» provides high potency only in treating of animals with fascioliasis (EE and IE – 100 %), and by paramphistomatosis of ruminants only reduces the intensity of infestation.

**Obukhovska O. V.** The natural reservoirs of *Mycoplasma gallisepticum* // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 107–111.

It has been proved that decorative and wild bird may be the natural reservoir of *Mycoplasma gallisepticum*. It has been provided that content for the limited territory of birds of different species of parasite transmission occurs from the typical (chickens, turkeys, pheasants) to the unusual (ducks, geese, swans). The seropositivity among waterfowl can reach values of 12.73 %, the mikoplazmacarrier – 5.45 % of the total

population. It was revealed that in populations of wild waterfowl (ogarej) up to 17 % of individuals are potential mikoplazmacarriers.

**Sanin N. A.** The device for measurement of an ophthalmotonus at different kinds of animals // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 112–114.

The digital device for measurement of intraocular pressure (IOP) at house and agricultural animals, and also results of measurements on a reference to water column, on healthy rabbits and horses is described. There was a developed technics of measurement, and the software of the device for accuracy increase is improved.

**Kuzmenko O. B.** The conceptual regulations of resource-saving activities of agrarian enterprises // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 115–120.

The article substantiates the need to develop resource-saving activities of agrarian enterprises with the use of innovative technologies of «organic» farming. The conceptual regulations of such development are proposed. They comprise: preconditions and factors of resource-saving activities of enterprises, the main goals of resource-saving activities, evaluation of system of resource utilization of agrarian enterprises, mechanisms for the implementation of conceptual regulations, target areas and the main tasks of resource-saving activities; expected results.

**Kovalova O. V.** Institutional forms of organization of management of the agricultural sector development // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 121–126.

In this article the author on the neoinstitutional methodological basis has grounded the matrix of institutional forms of agricultural sector development by vectors «centralization – decentralization» of making administrative decisions, «the economic and national interests». The matrix describes the institutional forms of markets, hierarchy, heterarchy and other forms of agricultural sector development as the organizational form of national socio-economic and commercial economic interests compromise in a polycentric decision making system as prerequisites for the formation of the institutional environment of joint action of public and private partners. The types of hybrid forms of governance at the sectoral level are defined.

**Petrosyan S. A.** Mining industry as one of the priority sectors of economy of the Republic of Armenia // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 127–131.

The importance and necessity of the mining industry in the further development of Armenian economy are well-grounded in this article. Moreover its negative impacts on the environment are elicited and measures for their reduction are proposed. According to the Director of the Research Center for Eco-Noosphere studies NANRA A. Saghatelyan, environmental pollution by heavy metals takes place to such an extent that it leads to the penetration of heavy metals in the food production circle. This fact is observed almost in all mining regions of Armenia: in the South, in the North, in the Ararat Valley as well. Through sewage the metals have contaminated not only the ground itself, but irrigation water too. All of this injurious stuff goes into vegetable products, presenting a great danger to human health. This is a real threat for disruption of the gene pool.

**Badalyan M. E., Kazaryan A. R., Margaryan M. A.** Role of cooperative farming in development of agricultural production in Armenia // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 132–136.

In highly developed countries cooperatives play an important role in the development of agriculture. The cooperatives promote efficient use of resources, increasing production efficiency. This process goes slowly yet in Armenia due to the imperfection of the legal field, the low level of government assis-

tance and other factors. To accelerate the process of formation of agricultural cooperatives it is necessary to set up a positive environment, to pass a law «About cooperatives» and governmental complex assistance program, to compensate all or part of expenses associated with the creation of cooperatives.

**Kostenko E. M.** Automation of processes of design of multifactor objects of research // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 137–139.

Methodology of automation of processes of design of multifactor objects of research is examined in the article. The automated stand is offered for the design of such objects of research, as technological processes, devices and systems. It allows automating the processes of obtaining plans by calculating the best cost and time of experiment, conducting multifactor experiments and processing their results. Speed of conducting multifactor experiments and processing their results increases thus, influence of human factor on the results of experiment is eliminated, cost expenses on their conducting are reduced.

**Levchuk V. I., Arendarenko V. M., Ivanov O. M.** Static and dynamic properties of the turbocharged diesel with changing advance angle of injection of fuel // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 140–144.

The results of experimental studies of the effect of advance angle of fuel injection on the static and dynamic properties of a diesel engine with a turbocharger have been produced. The degree of influence of the controlled parameter on the static properties of a diesel engine was assessed on the basis of velocity characteristics of operating parameters of diesel at different advance angles of fuel injection. From the analysis of dynamic modes of the free acceleration of a diesel engine, produced by various characters of changing of the advance angle of fuel injection, conclusions about the close relationship between the onset of the fuel supply and the quality of a given transition have been made.

**Bulavenko R. V., Stepovaya E. V., Roman V. V.** Purification of food industry sewage by means of bioplateau constructions // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 145–148.

On the base of already existing phytotechniques, in particular the usage of higher aquatic plants in bioplateau constructions and other advanced methods, there was developed an effective, ecological system of post processing dairy products sewage purification for the reusable resource. A two-stage bioplateau construction with higher aquatic plants (Reeds, Reeds Lake, Lesser Bulrush, Common Bulrush, Sweet Flag) was offered. There was a bioplateau with higher water plants for purification of dairy industry sewage as a reusable resource for the company needs worked out.

**Dron' V. S.** Application of modified linear regressive models for prognostication of progress in crop production // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 149–153.

The use of modification of linear regressive models for research and prognostication of socio-economic figures, in particular in crop production, was offered. Modification is expedient at presence of additional information on connection between values. In the case of the known value of dependent variable at a specific value of the independent variable the point through which the regression line passes, is fixed. The example of application of the method for research of the productivity of winter wheat was offered. Comparison by the basic criteria of quality of the classic and modified regressive models was carried out.

**Chukhlib Y. O.** Development strategy of ecological agriculture // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 160–164.

The preconditions and developed theoretical and methodological principles of ecological agriculture based on

systemically-ecological approach have been analyzed. The factors that determine the organizational, technological, economic and social aspects of transition of agricultural production to ecological method of management have been defined. It has been noted that the agricultural production should be considered as a sustainable environmental and economic system, elements of which operate as one interconnected whole.

**Ilyenko A. P.** Cultivated land surface temperature changing data from Landsat TM 5 // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 165–168.

This article illuminates the point of finding out the presence of the temperature differences on the cultivated land surface, particularly, on typical black deep humus-arm earth with the help of the satellite Landsat 5 (TM) heat channel. The results of the computer-aided (automatic) identification of relevant indicators on the satellite image on September 25, 2010 with the use of model of the energy balance (SEBAL) in the Kirov village council of Poltava district, Poltava region are adduced. The obtained results formed the basis for detecting the thermal dependence of the soil surface from the type and fertility.

**Shaferivsky B. S.** Fertility of boars of foreign origin // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 169–172.

The following research results have been presented: assessment of sperm quality of large white boars, duroc, landrace and pietrain (German selection) boars. Also the results of research of breeding capacity of large white sows and landrace sows of French origin while crossbreeding with the above mentioned boars of German origin have been stated. Essential difference in concentration, volume, motility of sperm of German origin depending on both breed and season has been ascertained. The most appreciable heterosis effect connected with multi-fertility is shown by crossbreeding of large white sows of French selection with large white boars of German selection.

**Melnichuk V. V.** Conjunctivites in young animals of large livestock: the determination of microbial view and sensitivity to the antibacterial preparations. // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 173–176.

In the article the data of the bacteriological studies of microflora of the conjunctival bag of calves with the signs of the double-sided inflammation of the connecting shell of the eyes of different nature in the age of 2-4 months are illuminated. The determinations of the sensitivity of the chosen microorganisms to the basic antibiotics is carried out in vitro, the antibacterial properties of the substances which are proposed for the treatment, related to the revealed microorganisms are selected and studied.

**Martynova O. L.** Immunoprophylaxis of equine influenza // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 177–179.

The vaccines registered in Ukraine and used for immunoprophylaxis of equine influenza are examined in details. Comparison of their anti-gene structure and composition was carried out. The schemes of vaccination offered by producers of these preparations are considered. The possible reasons of break of immunity at vaccination are assumed. According to these recommendations concerning using of vaccines against equine influenza in farms are made. It is defined that for active immunization of horses it is necessary to use vaccines from subjects of anti-genes sets which correspond to a virus landscape of a concrete farm, and also depends on, whether there is a need to vaccinate horses from tetanus every year.

**Belousova M. N.** Development of ADPS «Assessment of investment attractiveness of agrarian enterprises» // News of Poltava State Agrarian Academy. – 2012. – № 4. – P. 180–184.

A procedure for assessing the investment attractiveness of enterprises was proposed, an automated data processing system «Assessment of investment attractiveness of agrarian enterprises» was developed. Designing the database tables and relationships between them was carried out using database Microsoft SQL Server, as the chosen programming language C#. Application of the proposed program will enable managers to make management decisions in the field of improving the investment attractiveness of enterprises quickly and accurately.