Patyka T.I., Patyka M.V., Kandybin M.V., Ermolova V.P. Effective application of entomopathogen *Bacillus thuringiensis* H14 in the control of mosquitoes *Aedes aegypti* // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 12-16.

Results of complex researches of an effective application of natural entomopathogenic bacteria of groups Bacillus thuringiensis as producers of larvicidal preparations of prolonged actions for the control of number of blood-sicking mosquitoes of sort Aedes aegypti are considered. Functional activity of new strains BtH14-87/3, BtH14-33 for larvae of mosquitoes of different age of insectarium populations and successful application of Bactoculicid on the basis of BtH14 in a wide interval of natural-climatic zones and types of reservoirs is shown.

Malinovska I.M., Zinovieva N.A. The direction and intensity of microbiological processes in dark–gray podzolic soil polluted by oil products // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 17-23.

Oil pollution of dark gray podzolic soils leads to a change in the number of physiological and biochemical activity of microorganisms of studied ecological–trophic groups. As a result of oil pollution the intensity and orientation of mineralization processes are changed: development of soil organic matter is delayed, intensity of mineralization of nitrogen compounds is decreased, the mineralization of humus is reduced in the extensive agrozeme to 5.81%, in the intensive agrozeme to 11,1%, the phytotoxicity of soil is increased in an extensive agrozeme to 11,0% in the intensive agrozeme to 59,4%.

Malynovska I.M., Soroka A.P. Behavior of microbiological processes soil of two-year fallow land // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 24-29.

As a result of study of the state of microbiocenosis of two-year fallow land it has been found out that cereal growing leads to intensification of processes of decomposition of humus as compared with growing of leguminous-cereal mixed grass crop and spontaneous renewal of phytocenosis. Mineral fertilizer application in all variants of renewal of phytocenosis of fallow land and on agrozems reduces intensity of destruction of humus. Soil of rhizosphere of cereal mixed grass crop and extensive agrozem have maximal phytotoxicity, soil of rhizosphere of leguminous-cereal mixed grass crop has minimal phytotoxicity.

Pisarenko P.V., Kolesnikova L.A., Zagoruyko G.E. Izoperymetry of equal plane figures and its use for morphometry of leaf blade cuts of spring wheat seedlings // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 30-35.

A new method of approximation of complex-shaped cuts of bioobjects by homotopic plane geometric models, which provides quantitative data, close to the values of relevant parameters of real biological objects has been suggested. Application of homotopic geometric models minimizes errors of morphometric measurements, allows the use of classical metrics for the study of structural changes in sections, to analyze the dynamics and determine the direction of structural changes of biological objects in the experimental conditions. Calculation results show that the most adequate model for cross-cutting LP of the fourth leaf of wheat seedlings is homotopic geometric plane figures in the form of stretched rectangle.

Zhemela G.P., Herman M.M. Soft winter wheat yield depending on pre-sowing treatment of seeds // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 36-39.

Two-year results of the influence of plant protection products on the yield and grain quality of winter soft wheat have been presented. A significant influence of drugs of pre-sowing treatment on the formation of soft winter wheat yield have been revealed. According to items of plant productivity the most effective application of biologically active substances and polymyxobakterin and diazofit in doses of 150 m/t have been observed. The studies revealed significant influence of weather conditions on the formation of protein content, gluten content and the number of falls.

Shevnikov M. Ja. Influence of mineral fertilizers on productivity and nutritional value of the mixed crops of soya and cereals // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 40-46.

Researches testify that direct applying of nitric fertilizers under soya suppresses nitrogen fixing. With increase of a dose of fertilizers gathering of digesting protein has increased. At applying of fertilizers of 1 kg in pure crops of corn it is possible to receive 1,58 kg of digesting protein, whereas in the mixed crops of 0,99-1,01 kg. The reason concerning low increase in a crop in the mixed crops from mineral fertilizers is in weak sensitivity of a bean component on improvement of conditions of a root food. The soya in combination with cereals chokes, and this oppression does not decrease at improvement of conditions of a food when mineral fertilizers are introduced, and on the contrary amplifies.

Bilyavska L.G., Sherstoboeva O.V., Biljavskij Ju.V. Reaction of soy varieties on bacterial inoculation of seeds in different weather conditions // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 47-49.

The reaction of soy varieties of different groups of ripeness on bacterial inoculation has been studied depending on climatic conditions during the vegetation of plants. It has been found out that inoculation sensitiveness of early ripe variety Amethyst and Diamond a little depends on the weather conditions of vegetation. Middle-ripening variety Agate promoted the productivity on a background of bacterial inoculation only in favourable years provided with a good moisture. In throughout the year of researches the greatest increase of the productivity of all investigational varieties is fixed at application of multifunctional complex KBP-1, which consists of biologics of Rizobofit, Biopolicid, Fosfoenterin. The studied varieties showed a high inoculation sensitiveness. But the greatest level of efficiency of bacterial inoculation of

seed took place at early ripe drought-resisting variety Amethyst and Diamond.

Harchenko U.V., Harchenko L.Ja. Teosinte as a perspective crop for corn selection // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 50-56.

Research and publications on attraction of a genetic variety teosinte (Euchlaena mexicana Schrad.) for crossing with corn has been analysed. It has been noticed that by means of modern biological technologies techniques and means of gene engineering it was possible to transfer economic important qualities of a wild plant to new forms of corn. Therefore studying and involving in selection work with corn of genetic plasma teosinte is actual. A powerful contribution of scientists of Ustimovsky experimental station of plant growing to creation and studying of a perspective initial material on the basis of the remote hybridization of corn with teosinte, and also in working out and improvement of a technique of teosinte cultivation in the conditions of short day has been stressed.

Sharyj G. I., Ilyenko O.P. Monitoring of agricultural grounds with use of Landsat ETM+ spectral pictures // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 57-61.

The question of monitoring realization according to the condition of agricultural grounds use by multispectral Landsat ETM+ pictures has been considered, namely the optimum method of identification in satellite pictures kinds of plants, which are grown up in investigated territory has been defined. On the basis of the received information spectral libraries have been created, which give the chance to use pictures of other satellites for identification. This method gives the chance quickly and with the minimum expenses to receive trustworthy information.

Koval V.V., Kutherjavii S.O., Minenko O.V., Ljashenko V.V. Dynamics of content remaining amounts of pesticide on lands of intensive use in Poltava region // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 62-63.

Results over of analytical researches are brought in relation to exposure in plants and soil of remaining amounts of pesticides. It is set that deployment of pesticides in an agricultural production can be reason of contamination the vegetable products. The especially dangerous is remained by preparation Furadan. It is in addition marked: ecotoxical situation which is caused by application of pesticides from Poltava region in 2007, it is a little dangerous.

Borysenko L.D., Kataieva T.Ye. Source material FOR development of a new variety of onions *Allium Odorum* in the east zone of Ukraine // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 64-66.

The paper presents researches connected with the productive-morphological peculiarities of onion *Allium Odorum*. The efficiency of samplings of morphological characters by which the speeded up selection on productivity should be carried out is proved. For the further work plants from sources that had the greatest adaptive potential with a complex of economic - valuable attributes are used. The results of breeding work with the use of genetic sources of resistance to downy mildew have been given; sources, adapted to the Steppe conditions, which ensure high productivity are revealed.

Boyko O.G. The possibilities of the use of GIS /DZZ technologies in exact agriculture // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 67-69.

The represented possibilities of the use of technologies given of the controlled from distance application of Earth (DZZ) and geographic information systems (GIS) are on the experimental fields with the use of technologies of exact agriculture. Problems of co-ordinate attachment of net of view points for regular inspections during the lead through of researches on such fields have been studied. The grounded application of DZZ and GPS is for determination of basic types of soils and relief of test areas. Realization of job performances will be instrumental in introduction of GIS-technologies and positively will affect efficiency of the use of information of DZZ for the decision of wide circle of practical and scientific tasks.

Kliuchevuch M.M., Osovets Y.V. Influence of crop rotation factor and manuring systems on development of winter rye diseases in conditions of Polissya // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 70-74.

Influence of crop rotation factor and manuring on development of fungus diseases and productivity of winter rye diseases in conditions of Polissya has been found out. Winter rye saturation of crop rotation increases plant damage by satyriasis, brown rust, mealy due and root rot accordingly by – 8,8, 5,5, 6,0 and 6,8%, but application of fertilizers decreases given tendency. The most effective concerning decrease of fungus disease development in winter rye agrocoenosis was an organic-mineral manuring system that helped to decrease plant invasion by 0,9-10,3%, but crop yield increased by 1,26-1,88 t/h.

Trach S.V. Estimation of influence of spirit production waste on structural-aggregate composition of typical black soil // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 75-77.

The influence of spirit production waste on structural-aggregate composition of typical black soil has been studied in the article. It has been found out that inspite of deterioration in the structural-aggregate composition of the soil the indicator of soil structure was in acceptable limits. For three years of researches the coefficient of structure of arable layer diminished in 1,25 time, namely from 2,5 to 2,0. Three-year watering resulted in diminishing of index on 0,3 units.

Chernyshenko T. V., Chefonova N. V. Influence of the methods of irrigation and fertilizers application on the yield and coefficient of water consumption of late white cabbage in the left bank Forest-steppe of Ukraine // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 78-80.

Results of researches on working out the optimum levels of preirrigation humidity of soil are resulted at drop irrigation of late white cabbage, and also ways of entering of mineral fertilizers against different ways of irrigation

are studied. Efficiency of application of a drop irrigation with levels of preirrigation moisture of a soil of 80-75 % SH against local application of fertilizers in a soil (N30P60K45) and carrying out fertigations (N30) is established at late white cabbage new perspective variety Lazurna growing in the left bank Forest-steppe of Ukraine. It gives the chance to receive yield of commercial heads of cabbage on equal 64,1-65,8 t/hectares, at low value of coefficient of water consumption – 48 m3/t.

Priss O.P., Zhukova V.F. Dynamics of tomato phenolic compounds during the storage with antioxidant preparations use // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 81-84.

The dynamics of tomato phenolic compounds during the storage with antioxidant preparations use has been studied. It has been found that in green and brown fruits there was an accumulation of polyphenols in the first period of storage. Phenol compounds are red fruit decay during the period of storage. It has been defined that the treatment by antioxidant preparations with the cooling allows to slow the processes polyphenols accumulations and destruction that enables the maximal safety of tomato biological value and increase of term storage.

Onupriienko L.G. The morphological features of plants of modern high-fibered varieties of hemp // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 85-89.

The article presents the results of the comparative analysis of morphological characteristics of plant stems of high-fibered modern varieties of hemp and the low-fibered variety in the aspect of further improving the fiber content, effectiveness of which depends on the architectonics of the stems. There was a significant effect of methods of sowing hemp (condensed, diluted) on the habit of plants, however, regardless of area of supply, modern high-fibered varieties of hemp retain distinctive characteristics of varieties. Modern high-fibered varieties of monoecious hemp Glukhivski 46 end Glukhivski 48 are recommended specifically for use in further selection work as a promising source material.

Birta G.O., Burgu Y.G. Intercommunication between separate indices of quality of pork meat // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 90-92.

During selective work on the increase of meat in carcasses there is a necessity of study of meat indices, which characterize its technological properties and taste qualities that is active acidity and moisture resistance capacity. One of the most reliable ways of change of pork quality management is a selection. Theoretical pre-condition of selection on the increase of meat and improvement of quality of pork is high heredity of signs which characterize meat qualities of pork, and also their close intercommunication. It is basis for a successful selection and selection of animals in the desired direction. All of signs which determine taste qualities and commodity type of pork (moisture resistance capacity, color, tenderness, marbleness) are high-heritable indices.

Subota J.V., Grygorkiv L.M. Scattering of drones Wandering of drones on apiary territory where they were grown has been studied // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 93-96.

It has been found out that depending on the period of breeding drones their scattering was in limits of 15,4 % (in April) – 1,9 % (in July). Drones wander irrespective of parts of the world, and are guided by a lay of land and affinity of placing of the next beehives more. The condition of families does not influence on fly of drones in them. According to sperm quality wandering drones are high-grade. For probability reduction of fly another drones in parent families it is recommended to place them in the forefront apiaries. It will give the chance to avoid casual use of drones of an unknown origin during tool fertilization of queen bees.

Berdnyk V.P., Berdnyk I.J. Preparation and testing of a vaccine from mycoplasmas. *Message 2.* // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 97-102.

Results of testing of the vaccine from temperature sensitive mutant M-60 Myco-plasma(M) arginini and from attenuated stains Ch-2 M. hyorhinis, EP-29 M. hyosynoviae, J M. hyopneumoniae and B-1 Acholeplasma laidlawii in conditions of unsuccessful on a mycoplasmosis farm have been given. At the vaccinated pigs rather from con-trolled ones there were authentically higher indicators of live weight of a body, safety and manufacturability. After immediate contamination the lungs of some vaccinated pigs had areas of serous-catarrhal inflammation but they were considerably smaller than in controlled ones.

Berdnyk V.P., Berdnyk I.J. Preparation and testing of a vaccine from mycoplasmas. *Message 3* // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 103-106.

The vaccine from attenuated stains M. hyorhinis, M. arginini and A. Laidlawii has been tested in three experiments on piglets of pig-breeding complex that is unsuccessful on a mycoplasmosis. 2891 piglets have been vaccinated. The first and the second time piglets of 7-18 days of birth were vaccinated into a nose cavity within the interval of 7 days, bur the third time after 35-49 days they were vaccinated into muscles. Vaccinated piglets had better safety, average live weight and greater number of transferred on fattening within the terms specifies in the technology.

Skripka M.V., Petrenko A.A. Pathomorphological changes at the experimental uncinariosis of dogs // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 107-109.

At experimental uncinariosis of dogs there is a defeat of liver, which is characterized by the dystrophic processes of inside elements, subsequent by their necrosis and phenomena of prolifiration. A catarrhal cholecystitis arises up as a result of the changes of a liver indicated before. There are dystrophic processes and destructions of mucous membrane of wall of urinary and bladder in the inside elements of organs of the urinogenital system. Violation of circulation of blood is accompanied with

bloodfilling of vessels and hemorhagies. A catarrhal endoenteritis, metaplasia and necrosis of epithelium of mucous membrane of wall of thin department of intestine is typical.

Kovalenko V.F., Ilchenko M.O. The fertility capability of boar's sperm under the influence of sperm plasma in different boars // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 110-112.

The different level of (high and low) quality of the boar sperm production of the Large White breed of pigs has been studied and basic sows have been inseminated by a native sperm. The sows have been inseminated by a native sperm of high quality where it was added plasma of sperm of low one (the second group) separately and the other way round. It has been determined an essential difference of the fertile capability of sperm by the way of a replacement of sperm plasma from boars to other boars. The results according to indices of the maximum number of piglets and the large size of foetuses in sows and the growth and the preservation of piglets have been received. An essential difference has not been found out.

Dmytrenko N.I., Kolych N.B. Some indicators of blood and clinical condition of dogs at parvovirus enteritis // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 113-115.

Display of clinical symptoms at dogs is investigated at parvovirus enteritis and some blood indicators at the given disease are resulted. It is found out that the disease affects mainly young dogs at the age of 2,5-8 months, it is expressed by the oppression, full refusal of meal, and frequently of water, absence of reaction to external irritants. All slime covers are pale, dry, gray-white with poorly filled with blood vessels. By blood tests it is found out that amount erythrocytes fluctuates from 2,6 to 4,63 T/l, leukocytes – 1,5-10,4 G/l, the level of haemoglobin – 180-220 g/l. Changes of morphological indicators of blood are tied with organism loss of great amount of liquids.

Garkusha S.E. Some histological and histochemical changes in lungs of piglets which perished from intestinal clostridiosis // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 116-117.

The presented results of histological and histochemical changes in lungs of piglets which perished from intestinal clostridiosis. The problem has been studied at the department of pathological anatomy of the National University of Life and Environmental Sciences of Ukraine and in pig farms of industrial type of Kyiv region, where the issue of young animals in recent years has beens particularly urgent. In large pig farms of industrial type intestinal Clostridiosis is often observed, which causes considerable economic losses.

Bulawenko R.W. Antioxidant status in the liver of sows and their fetuses // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 118-121.

The concentration changes of primary (dien-conjugates (DC)) and secondary (malon-dialdehide (MDA)) products of lipids peroxidation and the changes of enzymes of antioxidant defence (catalase, glutation-peroxidase, glutation-transferase) in the liver of sows at different reproduction cycle periods, as well as in the liver of 60 and 90 days fetuses and newly-born piglets have been studied. The correlation between the LP level and antioxidant defence level in the liver of grown-up animals influenced by their physiological state has been defined, which is expressed by the increase of peroxidation processes and antioxidant enzymes activity. As a result of the fetus liver function formation the antioxidant enzymes activity rises and reaches its maximum value in newly-born piglets.

Lysova V.V. Pathomorphology of glasser′s disease // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 122-123.

The results of study of pathomorphological changes at glasser′s disease have been presented. It has been shown that the most expressed macroscopic and microscopic changes come to light in a parenchima and serosas of lungs, heart, liver. In the farms haemophilios polyserositis diagnosis is difficult and sometimes impossible, efficiency of therapeutic drugs that are being offered the producers is insufficient, so the disease causes significant losses of supporting basis, primarily in the form of the death of the young and shortfalls of pork products.

Kolich N.B. The pathomorphological characteristic of cases of destruction of dogs at parvoviral enteritis // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 124-126.

The dogs parvoviral infection is accompanied by exsiccosis, leucopenia, mixed alimentary posthemorrhagic anemia, myocarditis and intoxication as a result of processes that develop in the intestinal tube. Exsiccosis is accompanied by thickening of the blood, bile, dryness mucous membranes. Inflammatory processes in myocardium is accompanied by an allergic component. In cases of subacute process there are an atrophy of parenchyma of liver and spleen. Inflammation of the intestinal tube is characterized by acute catarrhal-hemorrhagic and desquamative catarrhal inflammation. Intranuclear polymorphic often basophilic inclusion cells are set in the cells of deep divisions of intestinal glands.

Klymenko O.S. Ecological features of satyriasis of cattle in farms of central part of Ukraine // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 127-129.

The analysis of literary data and own researches in relation to microfilarial invasion of mosquitoes at their spontaneous and experimental infection has been conducted. It has been found out that in farms of central part of Ukraine potential possibility to microsetaria infection of mosquitoes was 11,54-14,29%, however a transmission of an causative agent to susceptible animals is provided by 0,36% insects. The prospect of subsequent researches is a study of influence of indices of parasite invasion of animals and insects.

Evstaf'eva V.O., Klymenko O.S., Hyzhnya L.Y. Monitoring of intestinal parazits of hens in private farms of poltava region // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 130-131.

The epizootic situation in relation to intestinal parasites of hens in farms of Poltava region has been studied. Poultry farms of Zenkov, Lokhvitsa, Piryatin, Velikaya Bagachka and Poltava districts have been investigated. Considerable distribution of endogenous parasites has been found out by koprological research. The most widespread representatives of intestinal parasites of this region are Ascaridia, Capillaria, Syngamus, Heteracis and Eimeria. Diseases show up in a kind of mono – and polyinvasion.

Dmitrenko N.I., Zapeka I.E. Athomorphologic changes in organs of respiratory and digestive systems at associative course of the mycoplasmosis and kolybakteriosis of pigs // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 132-134.

At associative course of a mycoplasmosis and kolybakteriosis the dehydration of an organism, changes in internal organs are indicative. The last at macroscopical level are shown in the form of a hyperemia, serous-catarrhal inflammation of top respiratory tracts, serous-catarrhal bronchopneumonia, a venous hyperemia of a liver and a hepatosis, a catarrhal gastroenteritis. At histological level formation of peribronchial lymphocytic infiltrates and an intersticial pneumonia are characteristic. Pathological process in an interalveolar connecting tissue leads to narrowing of a lumen of alveoluses and bronchi making difficulties for gas exchange and for blood circulation.

Orlov S.M. Application of mediums for the transportation of biological materials and isolation of cattle mycoplasmas // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 135-138.

Field isolates of mycoplasma from 30 to 50 % of cows with pathologies of the reproductive organs were selected in the application of mediums for the transportation of biological material (MTBM). Most effective for isolation of mycoplasma in cattle and inhibition of microflora was the use of MTBM with addition of antibacterial (cephalosporins 50 mkg/sm^3, penicillin 1000 UA/sm^3) and antifungal (nystatin 500 UA/sm^3) antibiotics, their daily incubation with further passages on diagnostic nutrient mediums.

Morozenko D.V., Pasichnyk V.A. Indicators of metabolism of a connecting tissue at alimentary gastroenteritis in dogs // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 139-141.

In the article the question of application of indicators of metabolism of a connecting tissue in diagnostics of alimentary gastroenteritis at dogs is considered. It is found out that the maintenance glycoproteins and glycosaminoglicans (GAG) in blood serum of the dogs suffering from an alimentary gastroenteritis, change in comparison with clinically healthy animals. Thus series of indicators, which are applied in diagnostics of diseases of a gastroenteric tract (crude protein, albumins, activity the AlAT, AsAT, β-lipoproteins), remain within norm.

Obuhovska O.V. Restoration of viable populations of mycoplasma in deliofilization // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 142-146.

The stages of restoration of viable populations of mycoplasma, with period of storage from 2 till 25 years, in process of deliofilization have been studied. It has been found out that the liofilization process negatively influenced the dynamics of cell growth of mycoplasma. Thus the log-phase of native strain *Mycoplasma gallisepticum S6* was three times shorter and the phase of steady development was three times longer than deliofilization analog. Liofilizated crops of mycoplasma can restore the viability of the population figures (in mid 8%) after implementation of the 5 successive passages in liquid media on conditions that the period of storage did not exceed 20 years. Storage of crops of mycoplasma for 23-25 years leads to irreversible loss of cell viability in the population.

Paliy A.P. Stability of photohromogene and separate kinds of fast-growing mycobacterium to «DZPT-2» // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 147-148.

The article deals with research on studying of resistance to action aldehydro containing disinfectant preparation of photohromogene mycobacterium *M. kansasii* and fast-growing mycobacterium *M. diernhoferi, M. flavescens, M. fortuitum, M. phlei, M. smegmatis, M. thamnopheos*. It has been found out that atypical mycobacterium of different kinds and variants showed different resistance to the same disinfectant preparation.

Bodnar O.O., Kernychnyi S.P., Gudyma A.M., Biletskyi V.S. Microbiological characteristics of causative agents of postnatal endometritis in cows // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 149-151.

The results of microbiological research of vaginal-uterus excretions of cows suffered from postnatal endometritis have been presented. Specific composition of microflora has been defined. The results of the bacteriological testing testify to polyetiology postnatal endometritis in cows with preference of relative pathogenic causative agents and their associations.

Suprovich T.M. Influence of antigens of the i-st and the ii-nd class of bola – system on necrobacteriosis morbidity at cattle // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 152-156.

Distribution of antigens of class I and II BoLA – system and alell gene of BoLA- DRB3 is under investigation for healthy and ill cows suffering from necrobacterios. It has been found out that antigens of W2, W31, A3 and A13 were associated with the disease. The antigens of MSU A6 and A17 on the contrary show a protection role. Stable cows mostly had alleles of BoLA - DRB3.2*18, *22 did not turn out DRB3. 2*8 and *10 . In the group of patients of animals alleles of BoLA came to light mostly DRB3.2*23 and *26 and DRB3 did not turn out2*14, *15 and *17.

Oprya A.T. Methodological peculiarities of dispersive method use in the analysis and investigation of economic phenomena and processes: possibilities and restrictions // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 157-162.

Method of dispersive analysis as other methods of mathematical statistics has specifics in its use when solving analytical problems in economy. Here it can perform both main and subsidiary functions, among them quantitative measurement of factor signs influence, determination of influence authenticity and its confidential limits in cause-and-effect models, analysis of particular average ones and static estimation of their difference, maintenance of scientifically proved approach in application of quantitative methods of statistics and investigation of economic phenomena and processes.

Pysarenko V.V. Regional balances of production and consumption of vegetable crops // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 163-167.

The article deals with the analysis of regional production and consumption of main vegetable crops. The chart of production volumes has been worked out. Approaches concerning optimal structures of sowing areas of vegetable crops according to agroclimatic zones have been developed. The application of production balances for optimization of interregional shipping of vegetables has been offered.

Piskun V.I., Yatsenko Yu.V. Combined feed grinders use validation under the farm conditions // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 168-171.

This article highlights the experimental research results on the grinders evaluation according to specific energy expenses "Kharkovchanka" type grinder proved to be implemented for corn grinding incorporated to combined feeds. Specific energy expenses considered to be abated per 14,87%, 21,16%, 40,67%, 49,19% during "Kharkovchanka" type grinder use in comparison with "DZ.3" "ATDM2R" "KD-2" "D-2" respectively. For all that specific energy expenses during "D-2" grinder use were upped per 49,19%, 40,30%, 35,20%, 14,40 % mentioned grinders application respectively.

Kalinichenko V.M., Titko Rishard. Power consumption decrease during heat supply in agricultural production // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 172-175.

The possible ways of power consumption decrease during the agricultural production manufacture and heating of private houses in rural area with the help of application of modern approaches raising regulation quality of power objects are regarded. The increases of economy of the power systems arrive at upgrading of adjusting and additional possibilities of automation during organization of working as a power object. The article is to help the managers of agricultural productions, the farmers and the rural area inhabitants to estimate the prospect of the economy power reorganisation.

Kiva O.V., Hodursky V.Ye. Research and development of facilities for pre-sowing treatment of sugar beet seeds // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 176-178.

Experimental studies have been conducted to determine the parameters that provide optimal conditions for pre-processing of sugar beet seeds by magnetic fields. A proposed model was based on the researches of impact of traveling magnetic fields on the germination of seeds. Also experimental studies of effect of exposure and reorientation on processing of sugar beet seeds by magnetic fields on effectiveness of processing have been conducted. According to the results of the researches, a unit of treatment on industrial scale has been designed.

Avramenko N.I. Eeutrophication processes of the Vorskla river // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 179-181.

The article is concerned with the process of eutrophication of natural water reservoir. It has been emphasized that the main cause of eutrophication development was increasing biogene nutrient substances in a reservoir, that leads to rapid reproduction of algae. It is shown that eutrophication has negative influence on environment. This article has a detailed description of eutrophication processes of the Vorskla river, where the collection of agroecological information was conducted. The article contains the results of research concerning studying effects of biogene nutrients on the development of eutrophication processes. The article considers with the dynamics of algae quantity in different parts of the Vorskla river.

Len A.I. Provision of spring barley plants with elements of nutrition depending on fertilizer variations // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 182-185.

The results of research on studying of provision of spring barley plants with elements of nutrition depending on fertilizer variations in the conditions of east Forest-steppe of Ukraine have been presented in the article. It should be noticed that at the initial stages of the vegetative period of barley there is an intensive accumulation of elements of nutrition by plants which in process of reutilization of nutrients from vegetative bodies in the reproductive provide their normal growth and development at late stages of organogenesis. Also it has been found out that the requirement of plants for nitrogen remains high during all vegetation, for phosphorus at initial and final stages of organogenesis, and for potassium in the second half of vegetation. Behind maintenance of requirements of plants in food elements. Variants with applying of full doses of mineral fertilizers were optimum according to provision of plant requirements with elements of nutrition.

Manko L.A. Productivity of sunflower depending on saturation of crop rotations by it // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 186-189.

It has been found that productivity of seeds of sunflower during four years of carrying out of experience considerably decreased at increase in its part of crops in a crop rotation by 50 %. Accordingly in the crop rotations sated with sunflower on 20 and 25 % its stablest efficiency at level of 25,4-27,2 c/hectares was provided. Productivity of sunflower seeds for this period in three-field crop rotation was 23,4 c/hectares, and in seven-field crop rotation reached 26,4 c/hectares. However it is impossible to draw an unequivocal conclusion on level of influence

of different degree of saturation of sunflower crop rotations on its productivity.

Geyd O.P., Kovtun A.P. Biological fuel production as a way of formation of energy balanced and ecologically safe agrarian sector in economy of Ukraine // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 190-195.

Growing deficit of traditional types of fuel, worsening of ecological situation requires the search of alternative ways to solving problems of power providing and ecological defence production. One of the most progressive decisions in this direction is production and use of renewable types of biological fuel, basic from which is a diesel biological fuel that can provide an agrarian sector with fuel, and in future also other industries of economy. Legal problems of the state adjusting and support of this production are considered in the given article.

Oliinyk N.V. Agroecological grounds of the method of disturbed lands restoration in coal mining regions // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 196-199.

Intensive coal mining leads to violation of the soil cover of agricultural land as a result of subsidence of areas, pollution and its occupation by dumps. The use of moldboard breed of coal mines in laying waste of space and land reclamation can restore agricultural land. The possibility of using of moldboard rocks in the substrate used for the restoration of disturbed land in coal mining regions, followed by the cultivation of technical rape, which improves the agrochemical properties of soils has been shown.

Sobchyshyna T.M. Osteomyelitis of animals // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 200-203.

The article state generalized literature data of historical reference about osteomyelitis, its classifications, pathogenesis, clinic, methods of diagnostic and treatment. The literature information on this subject in veterinary surgery is limited. Some generalized data can be only found in sources of reference character, textbooks and tutorials.

Pidborska R.V. Influence of the ozonized 0,87% of NaCl solution on the content of fibrinogen in the blood of dogs with purulent wounds // News of Poltava State Agrarian Academy. – 2010. – № 4. – P. 204-206.

The content of fibrinogen in the blood plasma of dogs with purulent wounds under different treatment methods has been determined. The animals of the investigated group, which used ozone therapy through local restoration and the intravenous infusion, fibrinogen in the blood plasma of animals was not differents from the rate of clinically healthy animals on the 7 th day of treatment. In dogs of control group whom a traditional mean of treatment was applied with use of ointment "Levomekol" normalisation of level of fibrinogen is stated on the 10th day of treatment. The use of ozone therapy reduces the intensity of inflammatory reactions in dogs and promotes the positive dynamics of treatment.