

Pysarenko V.M., Kolesnikov L.O., Nikolaieva S.A. The influence of farming as an agroecological factor on activity of *Poecilus cupreus* L. (Coleoptera, Carabidae) // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 7–13.

The data on seasonal dynamics of activity of carabid species *P. cupreus* L. agrobiocenoses in winter wheat growing on it in an intensive, short-term organic and organic agricultural systems have been presented. The difference in the dynamics of the karabid number has been determined. The number of *P. cupreus* L. was higher on sowings in organic farming. Abundance was observed longer, the number decline began later. Maximization of the number of beetles *P. cupreus* L. in organic farming correlated with the rapid growth of average air temperature from the third decade of May the first decade of June. At this time the variations of short-term intensive and organic farming has already marked the decline of number of beetles *P. cupreus* L. In our opinion the reason for such regularity are more favorable for meadow mesophyte *P. cupreus* L. environmental conditions, consisting of long-term option for organic farming. In has been stressed that during research of many years the period of maximum activity *P. cupreus* L. was associated with the start of active temperature. Furthermore, this relationship was of the opposite character. The earlier in spring the transition temperature by 5 ° C was marked, the later peak of activity of beetles *P. cupreus* L. was observed

Shevnikov M.Ya. Efficiency of using of biologics and mineral fertilizers for soybean growing in the conditions of unstable moistening of Forest-steppe of Ukraine // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 14–18.

Importance of the research is determined by searching for new approaches to development of technological methods of growing soybean in the conditions of unstable moistening of Forest-steppe. Using of inoculation by lat. *Risobium* helped to get 1,4 tn the or 7,8 % gains of the harvest. A phosphor fertilizing in the dose of P₆₀ was ineffective. Using of P₆₀ with nitrogenous fertilizers and *Risobium* increased seed productivity of soybean by 14,5–19%. The most rational was using of *Risobium* on a background of nitric-phosphor fertilizing: the productivity of soybean was maximal on fertilized area in dose N₃₀ P₆₀ – 2,62 tn/he. Further increasing of the dose of nitrogen was ineffective.

Puzic L.M. The way of definition of a maturity degree of melon fruits // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 19–20.

As a result of long-term research it has been found out that the physical density of melon fruits depended on a grade and maturity degree. At the beginning of maturing fruits have a bigger physical density than ripe fruits. Melons of middle early grades are different from early ripe once according to their physical density. Relating to physical density of fruits it is possible to define a technical ripeness after which there is a slow conversion to the stage of ripening and formation of consumption ripening of fruits physical density of which is less than 1 g/cm³.

Myhal M.D., Shulha I.L. Difference of hemp variety by covering of leaves with cystolith hairs // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 21–25.

Results of investigation of hemp leaves by length and density of cystolith hairs are given in the article. Essential differences between varieties by such signs are revealed. It proves the genotype character of variability of leaves hairs covering. It is found out that at the bottom size of leaves more cystolith hairs develop in comparison with upper one. By the sign of leaves covering the best varieties were revealed. The density of hairs doesn't depend on sex type of monoecious and dioecious hemp. Since hairs play an important role in defense of pests and climate conditions there is a possibility of varieties selection on increase of level of leaves covering by hairs.

Opara N.N., Opara N.N. Poltava institute of agroindustrial manufacture of a name of N.I. Vavilov of academy of agrarian

sciences on service agrycultural complex of the Poltava region // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 26–31.

Preconditions of creation of the Poltava skilled field, mainstreams of scientific researches, its transformation to the Poltava experimental station, expansion of its research subjects are considered. Formation on the basis of the Poltava state selsko-economic experimental station of research-and-production association, and after the Center of scientific maintenance of agriculture of the Poltava area, their role in working out and introduction in manufacture of progressive receptions in plant growing and animal industries, mainstreams of scientific researches of the Center is opened.

Koval V.V., Natalochka V.O., Tkachenko S.K., Minenko O.V. Dynamics of nitrate contamination of agricultural water in the conditions of Poltava area // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 32–36.

The article presents the results of the laboratory experiments conducted by Poltava regional state design and technology centre on protection of soil fertility and foodstuff quality from 2002 to 2009 concerning the presence of nitrate contamination of water resources for agricultural uses in Poltava area. The finding prove the presence of nitrate contamination of water resources (especially wells) for agricultural uses in Poltava area. Thus, in 2002 the exceeding of maximum permissible concentrations (MPC) was determined only in one sample, and in 2007, 2008 and 2009 in 3.3%, 8.2% and 9.8 % respectively of the analysed water samples.

Laslo O.A. The ground monitoring in the system of exact agriculture // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 37–38.

Results of research with using of GPS-systems during ground monitoring showed that the use of test devices NIETFELD N 2005, MULTIPROB 120 and laboratories on the analysis of tests allows to find out local features on every working area. The system of exact agriculture allows to determine a number of indices: displays of slopes, degree of erosion, content of nutritives, mechanical composition of soils, abundance and lack of moistening as well as predicted yield.

Klimenko Yu.A. Estimation of park plantations and development of the ways for their optimization (on the base of Golosiyvsky park named after M.T. Rylsky in Kyiv) // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 39–44.

The data on taxonomic structure, landscapes and plantations of Golosiyvsky park named after M.T. Rylsky are presented. It was shown that L.I. Rubtsov's classification of garden-park types of landscapes is advantage for estimation of landscapes, but plantations of forest type in park landscape created on the base of natural plant massives can be estimated by comparison of the content and structure of woody cenosis of park with analogous data aboriginal (virginal) forest.

Sidorenko A.V., Snigyr V.P., Minenko O.V. Environmental factor and grain quality of winter wheat // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 45–47.

The dependence of productivity and quality parameters of winter wheat grain on ecotype of grade in a particular region of growing has been defined. It has been found out that obtaining high yields of qualitative grain of different winter wheat ecotypes in the conditions of Poltava region is limited by weather and climatic factors. At the same time reducing the negative impact of limiting factors is possible by strict adherence to recommended technologies for winter wheat cultivation with obligatory considerations of genetic characteristics of different grades.

Sokyrko P.G. Influence of cultivation methods of soil on water content and sunflower productivity // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 48–50.

The results of research of Poltava Institute of APV named after M.I. Vavilov obtained during years 2008-2010 revealed that at

the time of sowing and harvesting sunflowers the most of productive moisture in meter layer of soil contained in variants, where the main plow tillage was performed by PLN-3-35 and by combined unit AG - 4 "Scorpion" - 2. At the same backgrounds of tillage, plant seeds in the flowering phase formed larger area of leaf surface. In addition the reasonability of plowing replacement by shallow soil cultivation in technology of sunflower growing has been proved.

Herman L.L. Yield of carrot seeds depending on the methods of cultivation in the left-bank forest-steppe of Ukraine // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 51–54.

The effect of different irrigation methods and fertilizing of carrot seeds sowing in the left-bank forest-steppe of Ukraine has been studied. It has been found out that the drip irrigation on the background of local application of mineral fertilizers per $N_{22,5} P_{45} K_{45} + N_{22,5}$ in extra nutrition with irrigation water (fertigation) promotes percent survival rate of uterine roots in the field, better growth and development of seed plants and, consequently, the formation of high level of yield of normative quality seeds.

Shevchuk L.M., Yareshchenko O.M. Influence of growing conditions and a variety on polyphenols quantity in black currant (*Ribes Nigrum L.*) // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 55–60.

The authors have found out that the polyphenols amount in black currant depends on weather conditions during the period of growth and development, cultivation region and variety genetic peculiarities. The conditions of the eastern Forest-steppe are more favourable for accumulation of polyphenols by bearing of varieties Kozatska, Mynai Shmyryov, Sanyuta and Cherenshnev, of the northern part of the region for Ametyst, Vernisazh, Volodymyrska, Yuvileina Kopanya, Nymha and Raduzhna. Two latter varieties contain maximum amount of biologically active substances of this class. The existence of correlation between weather factors and polyphenols content in berries has been proved by means of the regressive analysis. The accumulation of polyphenols is effected positively by a warm and weakly wetted weather in the above mentioned period.

Rudas L.A. New tomato variety Zolota osin // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 61–63.

The articles the results of the development of new tomato variety Zolota osin with output of standart production 53,7–67,7% after 60 days of storage. It will allow to extend the period of public consumption of fresh fruits in autumn and winter. Natural weight losses and changes in biochemical content during a long storage have been studied. At the end of storage period the content of dry matter was 5,4%, sugar content – 1,67%, acidity – 0,36%, vitamin C – 21,1 mg/100 g, sugar-acidity index – 4,63, testing assesement of fruits – 3,4.

Prysiazhniuk M.V. Formation of scientifically-organizational bases of native livestock farming in 1920-th // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 64–68.

Historical reconstruction of formation of scientific base of native livestock farming has been offered. The activity of the first agricultural and trade practiced and educational organizations of livestock farming has been characterised. 1920-th are marked as a key period in foundation of scientific and organisational base of native livestock farming that is characterised by introduction of high zootechnical education, organisation of specialised research bodies of livestock farming. The foundation of the first research trends and theories was realized on the base of trade high educational and practiced establishments.

Birta G.O., Burgu Yu. G. Merchandising description of meat and fat products of pig breeding // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 69–71.

A problem of providing of population with the products of stock-raising is a primary task. Its solution in the nearest years is possible only with the help of paying special attention at rational development of such industry as pig breeding. Pigs as most fruitful better than other animals consume forage and give the most output of meat and fat as unsurpassed by calorie con-

tent, food value and taste. Taking into account a keen demand on high-quality pork and circumstance that researches in this direction were carried out in different years, under various conditions and mainly on the limited amount of genotypes, there was a necessity for modern terms to probe the comparative study of forming of quality of meat products of different genotypes of pigs depending on influence of paratypic factors on them.

Golub N.D., Grebennyk G.M. Use of male pigs of foreign genotypes in breeding economy of Ukraine // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 72–75.

In Limited Liability Company "Agrofirm" Nizy" boars of large white breed of German, Estonian, Ukrainian, Danish and Hungarian origin were used. Pigs of foreign origin is well adapted to the conditions of the Limited Liability Company. They showed a high productivity – 10,4–10,8 piglets, the output of live pigs at birth – 90–98,9%, in 2 months – 90–94%. Genotypes of Danish and Hungarian descent increases the number of piglets by 0,16–0,22 heads.

Nagaevych V.M., Bondarenko O.M. Professor O.P. Bondarenko – organizer of zootechnical science in Ukraine (1884–1937) // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 76–79.

On the basis of literary original sources basic scientific achievements of professor O.P. Bondarenko have been examined. His contribution to formation and development of stock-raising of Ukraine has been studied. It has been marked that along with research work O.P. Bondarenko paid much attention to performing tasks of state commissions on development of measures on stock-raising in Ukraine.

Yatsenko L.I., Rak T.M. Biological role of microorganisms in increase of nutritiousness of forages for pigs // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 80–83.

The analysis of references and the practical data about a biological role of microorganisms in increase of nutritiousness of forages, their digestion pigs' body has been presented. Results of research and industrial practice show that one of the best and accessible ways of introduction of biologically adequate feeding of pigs, increase of efficiency of forages of own manufacture is the use biologically active substances of a natural origin and microbiological synthesis in feeding of animal. Positive influence of forages received by microbiological synthesis on resistance and other reactions of pigs' organism, their reproductive functions and productivity has been studied.

Pidtereba A.I., Piliugin V.O. Interrelationship between the level of essential and nonessential amino acids in endometrium of 60-th and 90-th days of pregnancy and fetal sizes // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 84–86.

The dynamics of free amino acids sum in endometrium of sow uterine horns on the 60-th and 90-th days of pregnancy have been presented. It has been found that the total level of essential amino acids on the 60-th day of pregnancy was maximal in the place of localization of middle size fetus and minimal one was between fetuses. On the 90-th day in the row of big → middle → small fetuses, the sum of free amino acids decreased. It gives evidence that the fetuses of different sizes influence the level of free amino acids differently.

Metlytska E.I., Gyria V.N. Genetics and selection aspects of forecasting of boars pedigree value // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 87–91.

Perspective of prognostication of pedigree value of boars has been shown on the basis of phenotypical estimation taking into account the parameters of genetic combination of paternal pair and homozygosis of individuals according to data of polylocus of ISSR-typing. It has been found out that determination of boars-improvers by selection indices and modal classes of distributing was not always considered as effective methods. Involving of additional information at genetic level is more perspective method of the use of the best genotypes in selection process.

Rusko N.P. Evaluation of natural milk on its freezing point // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 92–94.

The article is devoted to the problem of establishing naturalness of milk - raw materials for one of the basic parameters - size of freezing point. Based on extensive experimental material ($n > 30$ thousand.), resulting from the 5-year monitoring the quality of milk produced in different seasons in the Eastern region of Ukraine the natural freezing point of milk for specified zone has been found out. The cleared-up value is the base for determining the degree of falsification of milk with water, that is the mass fraction of water added to milk and clarifies the requirements under ISO 3662-97 (as amended) when testing of naturalness of milk raw that is supplied to processing enterprises.

Berdnyk V.P., Bublyk O.O., Berdnyk I.Yu. Preparation and testing of a vaccine from mycoplasma. Message 6. The results of a complex application of a vaccine from attenuated strains of mollicutes and Bordetella in pigs // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 95–99.

The results of a complex application of the vaccine from 5 kinds of mollicutes and B. Bronchiseptica in piglets in farm conditions have been presented. 117 piglets were from sows vaccinated from Bordetella before 40–45 and 15–20 days of farrowing, and 242 were not vaccinated. There were 4 subgroups in each group. Piglets of subgroup 1 were injected a vaccine from mycoplasma, 2 – Bordetella, 3-mycoplasma+Bordetella and 4 – placebo (control). 8–12 days of birth piglets were injected twice into nasal cavity by the vaccine from mollicutes and once into muscles with 7–8 and 40–50 intervals respectively. Indices of safety, the number of piglets given for fattening and live weight were the highest in piglets injected the vaccine from mycoplasma and mycoplasma+ Bordetella from unvaccinated sows.

Borysevych B.V., Lisova V.V., Titov D.V., Khorsun O.S. Microscopic changes in the small intestine of cattle fetuses aborted at infectious rhinotracheitis // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 100–101.

The results of study of microscopic changes in the small intestine of cattle fetuses at the age of 5 and 7 months which were aborted at infectious rhinotracheitis have been presented. It has been shown that in fetuses at the age of 5 months there was the destruction of undifferentiated cells of mucous membrane, and in fetuses at the age of 7 months destruction of fringe and their epithelium was observed. The intranuclear eosinophilic bodies-inclusions are revealed in the immature cells of fetuses of both age-related groups. Also there are changes of undifferentiated or poorly differentiated tissue between a mucous membrane and serosal shell.

Skrypka M.V., Kisilova O.V. Features of pathologic and anatomic changes at experimental mukormikoze of hens // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 102–104. Typical depression, disorders of coordination, serous conjunctivitis, catarrhal-serous or serous-hemorrhagic rhinitis, haemodynamics disorders, pneumonia of alternative and exudative nature were observed during the first weeks of poultry disease at experimental mucormycosis. Beak necrosis, formation of specific granulomas in lung tissue, leukoplakia of esophagus, catarrhal endometritis and salpingitis are developed in a long pathological process. In all cases fibrinous pyelonephritis and protein hepatose were typical for infected poultry.

Berdnyk V.P., Kit A.A. Bacterial landscape of faeces from the rectum of white mice after application of solution of the Poltava bischofite // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 105–107.

It has been found out that RPB was acceptable to be taken by white mice 7 times with 24-hour interval in a single dose on magnesium. In double ply and fourfold doses it caused the reliable [$p < 0,001$] diminishing of amount of opportunistic bacteria [Escherichia, Enterobacter, Staphylococcus, Enterococcus] and healthful for animals [Lactobacillus], and after fourfold dose

tenfold reliable increase of fungi of sort of Candida was observed. The reliable diminishing in the content of thick intestine of white mice only amounts of Enterobacter was marked after application of RPB on a skin.

Kulynych S.M., Sarantseva N.K. Comparative efficiency of physical and mechanical methods of removal of a tooth stone at small animals at periodontitis // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 108–111.

The data concerning distribution, clinical signs, an establishment of comparative efficiency of mechanical and physical methods of removal of a tooth stone at small animals at periodontitis on the basis of scientifically-educational clinic of veterinary medicine of Poltava state agrarian academy have been presented. The expediency of removal of a tooth stone by an ultrasonic method at sick animal (cats and dogs) in a combination to the subsequent solution introductions lincomycin has been proved at complex therapy of periodontitis.

Kurman A.F., Mokryi Yu.O., Grubych P.Y., Lepeta L.V. Epizootological monitoring of babesiosis of dogs in Poltava // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 112–113.

An epizootological monitoring of babesiosis of dogs in the city of Poltava for 2007–2010 have been made. The seasonal dynamics and susceptibility to babesiosis in a dog breed, sex and age ratios have been studied. 2170 cases of babesiosis in dogs in the city of Poltava have been analyzed. It has been found out that males suffer from babesiosis more than females, dogs from 1 to 5 years old are more susceptible to the illness, the majority of clinic visits for this invasion were in spring (April, May) and in autumn (September, October), and dog breeds German Shepherd and Rottweiler suffer more often.

Lokes P. I, Kravchenko S.A., Lokes T.P. Results of ultrasonographic investigation of dogs and cats at cholecystitis // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 114–116.

In ultrasonographic way it has been found out that at cholecystitis in dogs and domestic cats edema and thickening of walls of a gall bladder, growth of bile echogen both in a bubble cavity and in bilious channels and growth of echogen walls of bilious channels were marked; at a chronic current of inflammatory process – induration and increase of parenchyma echogen of a liver round a gall bladder. In domestic cats sonographically changes of a liver parenchyma round a gall bladder are visualized already in the beginning of the illness that testifies to development of hepatobiliary pathology.

Kulynych S.N. Some immunologies indicators of blood of cows of patients on purulent pododermatity a number economy the Poltava area with different ways of the maintenance // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 117–120.

In article results immunologies researches of blood healthy and sick on purulent pododermatity cows of some economy Poltava area are presented. In particular it is established fagozitary activity and an index neytrofiles it is established their loperoxidazes and cytochemical activity glikogen behind following indicators - positively reacting cages, an indicator of cytochemical activity of neytrofiles, average and differentiated cytochemical koeficients. Data are obtained give the basis for application in complex therapy of the medical products which action is directed on regulation of metabolic processes in an organism of patients which will promote increase of efficiency of treatment.

Morozenko D.V. Diagnostics of gastroenteritis in domestic cats // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 121–122.

In the article the problem of diagnostics of gastroenteritis in domestic cats is considered. Clinical symptoms of an alimentary gastroenteritis are oppression, a fervescence, anorexia, hyporexia, vomiting, a diarrhea and a pain at an abdominal wall palpation. Maintenance ascending in blood serum glycoproteins on 90%, sialic acids – on 21% specifies in active inflammatory

process of a mucosa of a stomach and an intestine at gastroenteritis. The maintenance chondroitinsulfates at cats suffered from gastroenteritis has decreased by 40 %, thus the fractional structure of glycosaminoglycans (GAG) remained within the norm that it is possible to explain features of a metabolism of GAG in the given kind of animals.

Lazorenko A.B. Condition of mineral exchange of connecting tissue formations of horse hoofs at ungular deformations // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 123–126.

The results of research of concentration of mineral elements in connecting tissue formations of horse hoofs at ungular deformations have been presented in the article. It has been found out that deformation of hoofs in horses was characterized by substantial violations of content of mineral elements, foremost, in lateral cartilages and tendons of deep digit flexor, and also, in a less measure, cartilaginous fabric of hoof joint that documents deep disorganization of connecting tissue matrix. Ungular deformation in horses is accompanied by an increase in cartilaginous fabric of concentration of calcium, phosphorus, zinc, manganese and by the decline of content of magnesium, iron, silicon while in tendon fabric there is an increase of level of calcium, phosphorus, zinc, manganese, cobalt, copper, silicon at the simultaneous decline of potassium, magnesium, iron and cadmium.

Paraschenko I.V. Dynamics of ceruloplasmin of blood in relation to the stage of sexual cycle and state of sexual function of cows // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 127–129.

The dynamics of ceruloplasmin in blood of uterine total number of livestock of cows in investigating farm during a display of their sexual recurrence, but in the same way depending on conditions of sexual function has been analyzed in the article. The role of blood ceruloplasmin in the mechanism of excitation stage formation has been studied. A significant difference of indicators of blood ceruloplasmin at different stages and phenomena of sexual cycle of cows in investigating farm has been found out. A significant difference of ceruloplasmin level concerning condition of sexual function has been considered.

Shkromada O.I. Micological study of building materials with antibacterial additives after effect of aggressive environment // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 130–133.

The article presents disinfectants with prolonged action: titanium dioxide for whitening, stalosan, nanotitanium, titanium anatase, red iron oxide pigment for pig breeding farms for study and use. Mycological investigations of obtained building samples of have been carried out been and their comparative evaluation has been given. Aseptic properties of building materials appear before and after impact on their aggressive environment. It has been found out that the samples with the addition of disinfectant iron oxide pigment 2 g colonies of fungi was the smallest $2,80 \pm 0,40^{**}$ ($P < 0,01$) pieces.

Kharchenko N.V. Composition and formation of total capital of joint-stock company // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 134–139.

Methodology of total capital formation is studied. The nature of capital components has been found out. The formation of policy of attraction of loan funds is described. Principal stages of loan funds attraction have been considered. The system of analytical indicators has been shown. Financial opportunities of industrial joint-stock company for making effective decisions in formation and use investment and innovative capital of joint-stock company have been determined.

Lapenko T.G., Prasolov E.Ya. Restoration of details of agricultural machines // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 140–144.

The problem of restoration of details of agricultural machines on advanced electro-erosive technology has been considered. Recent researches have been analysed. Patent investigations of ways, devices and compositions of electrodes for electro-erosive processing

have been studied. The research was carried out on steel samples 65G with regulation of intensity of a current and pressure, and indicators were checked by the accepted instruments. The developed installation and the method of electro-erosive hardening of a detail surface protected by the patent. Results of the research have been confirmed by tests at a factory.

Kovalchuk S.B. Synthesis of methods for solving problems of mechanics of bars deformation. Message 2. Analysis and application // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 145–149.

The article deals with the analysis of the structure, resulting in message 1, the general expression which is the solution of the inhomogeneous linear differential equation of arbitrary order with a self-conjugate differential operator and corresponds to boundary element method. Selection of boundary conditions to be met by a generalized Green's function, the general expression was given in accordance with the method of initial and final parameters. Application of these expressions is shown in the example of the classical model of plane flexural bars.

Ilichenko A.V., Kotsuba I.G. Increase of effectiveness control of the process of hard domestic wastes transportation in Zhytomyr // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 150–153.

Practical experience of hard domestic wastes (HDW) treatment in Ukraine and developed countries of the world, first of all in Europe has been studied. The current state in the branch of the HDW treatment in Ukraine has been evaluated. System for effectiveness increasing of collection and removal of the HDW in the city has been developed. Theoretical and methodological approaches for modernization of conduct system functioning of the HDW have been analyzed. Scientific and methodical provision for realization of the system of control planning of removal process of the HDW in Zhytomyr for recycling and bury has been made up.

Dudenko V.P. Applied science: controllable results introduction of scientific research in manufacture // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 154–158.

Results of applied science research should be estimated and provide comprehensively real economic advantage to the state. In the article the system of controllable introduction of scientific work in manufacture has been presented. Thus the author offers two levels of introduction: the first – on the basis of results of industrial check and the second – on the basis of an estimation of agroecological characteristics of fields and, in terms of this, providing estimated yield level.

Strila G.P. Ecological-economic evaluation of the efficiency of the permanent land use with regard to the cost of soils // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 159–161.

Monetary evaluation of land with regard to natural fertility of soils must be the basis of the normative monetary evaluation of farm lands, which will enable to replenish budget, to control efficiency of use of land resources and to solve the problem of environmental efficiency of land use.

Kolesnikova L.A. Agroecosystem under anthropogenic stress of Reshetniaky deposit in Poltava region // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 162–168.

Environmental evaluation has been given. The level and radius of arable land pollution with oil hydrocarbons on the territory of Reshetniaky oil and gas deposit of Novosanzhary district have been grounded. Background quantity of oil products that can be used in work on regional and local monitoring has been studied. It has been found that expression of phytotoxicity symptoms of oil contamination of soil for spring wheat in the early stages of ontogenesis is expressed primarily through inhibition of growth processes at a dose of pollution from 20–50 ml/kg. On the basis of the results of laboratory experiments stimulating effect in making a small dose of oil (5 ml/kg) has been stated. It has been found out that the concentration of pollutants from 5 to 10 ml/kg is not perceived by plants as toxic.

Boiko I.A. General characteristic and features of conditions of underground waters formation on the territory of Poltava region as a basic source of drinking water supply // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 169–173.

The basic ways, factors and features of conditions of formation underground water-bearing horizons which are used for drinking water supply in Poltava region have been analysed. A chemical compound of waters of underground horizons has been studied. It has been found out that its change at water transition in more mineralized, alkaline, chloride and sodium is accompanied by reduction of the content of calcium salts and increase in concentration of fluorine. It has been clarified that artesian water extracted on water inlets in Poltava meets state sanitary standards and it is used for drinking water supply.

Zayarna O.Yu. Efficiency of application of biological preparation and regulators of growth of plants against root rots of spring barley // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 174–177.

The results of three-year study of influencing of plant protection system on damage by helminthosporiosis root rots (*Bipolaris sorokiniana* Shoem, *Drechslera teres* Ito) and productivity of spring barley have been presented. The considerable influencing of presowing treatment of spring barley seeds by bacterial preparations: Agat-25K and Polimiksobakterin, by fungoid preparations: Kladostim and Khetomik and regulators of growth Vimpel and Mikrogumin on the field germination, development of root rots and crop damage by them has been studied. It has been found out that technical efficiency of their application was 3,5–40,9%, and increase of harvest - 0,08–0,99 t/ha.

Drozd I.F. Peculiarities of influence of meteorological conditions on formation of economic-valuable signs of oil flax // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 178–181.

The results of research of influence of meteorological conditions on formation of economic-valuable signs of oil flax are presented in the article. Research was carried out on the basis of an training and experimental area of Drohobychy state pedagogical university named after Ivan Franka (Peredkarpattia zone). The analysis of the generalised results of research has confirmed that weather conditions influence economic-valuable signs, in particular plant height, weight of 1000 seeds that oiliness of flax seeds.

Zakharchenko V.A. The content of mineral elements in cows' placenta cotyledons with normal birth and placenta retention // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 182–184.

This article presents data of the contents metabolism elements in cows' placenta cotyledon with normal birth and placenta retention. Increasing content of copper, zinc and calcium and a tendency to rise the iron in animals with placenta retention have been found out. Manganese content remained unchanged.

Kanivets N.S. Amylase activity of saliva peptic ulcer of tongue in calves // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 185–186.

At tongue ulcer disease in calves of 4-6 months of age the composition of saliva changes. Sick animals have less salivary amylase activity in 2,9 times in relation to clinically healthy animals. In clinically healthy animals salivary amylase activity is of 21,0±2,35 U/l, peptic ulcer tongue – 7,2±2,03 U/l. With the development of ulcers on the tongue there is violation of blood supply to damaged areas. At the edge of damaged tissues inflammatory reaction devel-

ops that leads to hypersalivation in 65% of calves.

Atamanchuk O.V. Frequency of selection of salmonellae and goldish staphylococcus according to the results of analysis of veterinary and humane medicine reports of Odesa region from 2005 to 2008. Report 1. Results of analysis of veterinary medicine reports // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 187–190.

The analysis of veterinary medicine reports of Odesa region from 2005 to 2008 showed that frequency of selection of salmonellae had been within 0,14–0,34 % from the total amount of investigational tests of patmaterial and 1,06–2,50% from the separate species of animals and birds, and goldish staphylococcus – 0,68–1,31% of investigational tests of cow milk, 0,64% washings- off from the equipment and 27,9–35,3% washings-off from the hands of workers. Measures concerning this agent should be taken towards diagnostics and control of mastitises in cows, sanitary state of equipment and hands of workers of processing enterprises.

Portyanko T.V. Parodontium disease in cats // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 191–194.

Summarized literature data of parodontium disease in cats are given in this article. Nowadays the problem of prevention and etiotropic treatment of parodontopathy in cats hasn't completely studied yet. A great number of theoretical data needs scientific and practical confirmation. A prevalence of parodontium disease in animals makes necessary to scrutinize prevalence, etiology, pathogenesis, clinical signs and treatment and also to study influence of bacterial and immunological factors and somatic diseases on the development of parodontium diseases.

Kolomiyets N.O. Investment appeal of branch of meat poultry farming // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 195–197.

On the basis of the literature and work analysis of poultry farms of Ukraine investment appeal of branch of meat poultry farming has been analysed. Modern approaches to a problem of an investing hen meat production have been presented. It has been noticed that problems of an estimation of investment appeal at production in conditions of poultry farms deserve the enterprises of different type deserves attention. Meat poultry farming is first of all broiler poultry farming. Broiler poultry farming as one of scientifically capacious branches of agrarian and industrial complex substantially depends on efficiency of innovative processes and is defined by level of investment activity of its enterprises and branches.

Marievka M.U. Activity of Poltava province on agronomic efficiency increase of peasant and Cossack farms of the region in 1910-1917 // *News of Poltava State Agrarian Academy*. – 2010. – № 2. – P. 198–203.

The forms and contents of Poltava agronomic organization during Stolypin agrarian reform have been considered. The influence of main measures taken by government and Zemstvo agronomists to modernize agricultural production in general and the economies of small producers in particular have been found out. A special attention has been drawn to both plant cultivation and other sectors of economy, including livestock. It has been drawn the conclusion that small-scale production in the face of the peasant and Cossack farms were competitive in goods and services.