

Bilozhko V. Ya., Karpenko V. P., Poltoretski S. P., Prytuliak R. N. Physiological and biochemical processes in spring barley under separate and integrated application of herbicides and plant growth regulators // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 7–13.

The article summarizes the results of a long term research into the influence of slyphonylurea herbicides (Granstar 75, Caliber 75, Harmony 75), phenoxy-carboxylic acids (2,4-DA 500, Dicopur F 600) and combined preparations (Lintur 70 WG) applied separately and in combination with plant growth regulators (Emistim C, Agat-25K and Agrostimulin) on physiological and biochemical processes in spring barley which predetermine the formation of plantings productivity.

Zubov A. R., Zubova L. G., Slavgorodskaya Y. V. Dependence evaluation of weather factors on crop capacity of winter crops in the northern part of Lugansk region // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 14–20.

In the article the complex analysis of climate factors and productivity of agricultural landscapes is carried out at the typical agricultural enterprise in the north of Lugansk Region having taken as an example. Mathematical and statistical models of correlation dependence of crop capacity for winter crops upon weather factors for the 36-year period are defined as a result of the investigations. The most influential weather factors for winter wheat are determined to be the quantity of precipitation in June, September and May; for winter rye – the quantity of precipitation in June, September and April.

Kalenska S. M., Novitska N. V., Netupska I. T. Chick-pea yield formation under the influence of elements of cultivation technology // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 21–25.

It covers the economic and agrotechnical value of one of the most common legumes - chickpeas, and positive action for soils, on which it placed in crop rotation. Displayed beneficial influence of fertilizer and pre-seed inoculation on yield formation. The results of studies of elements of growing technology on the formation of structural elements and yield levels of Rozanna, Triumph and Pegasus varieties on typical chernozem soil. Established that the Pre-seed inoculation in combination with low doses of nitrogen fertilizers contributed to increase in yield of chick-peas varieties. The highest yield of chickpea in the experiment (4/9 t/ha) observed in a variety Rozanna in the variant with the use of pre-inoculation of seeds on the background making $N_{30}P_{60}K_{60}$ at 1040 sm^{-1} has been found.

Zhemela G. P., Kurochka A. O. The predecessors' influence upon the quality of winter wheat grain depending on variety properties // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 26–29.

The predecessors' influence upon the grain quality of different soft winter wheat varieties according to biological properties is examined. The varieties Zemlyachka and Volodarka had high indices of protein content. It is established that pea and annual legume grass were the best predecessors. The varieties Zemlyachka and Volodarka had the best indices of grain quality.

Shevnikov M. Ya., Logvinenko O. M. Optimization of area of feed of different sorts of soy through forming of intensive structure of sowing // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 30–33.

The offered modification of radial method of placing the plants of soybean with a glance the specification of modern intensive sorts enables to estimate the large range of density of plants and find out competitive mutual relations between plants on a comparatively small experimental area. For the sorts Anthracite and

Amethyst density from 700 to 800 thousand plants was expediently with the productivity 25,0–26,7 c/hectare. The Sort Almaz had the biggest productivity at the density about 1 million plants on a hectare, the productivity of seed of soybean made up 30,0 c/hectare.

Doroshkevich N. V., Shevkoplyas V. N. The estimation of new isolates of the *Pleurotus ostreatus* (Jacq.: Fr.) Kummer fungus using of infrared spectroscopy // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 34–37.

In this work a preliminary estimation of new strains of the *P. ostreatus* using IR-spectroscopy extracellular protein has been made. It is shown that the adsorption band at 3350, 2920, 1410, 1300–1000, 925–850 and 690–600 sm^{-1} indicate that various functional groups take place. Data IR-spectroscopy indicates that optical density of adsorption has different intensity and it is as result of physiological particularities studied strains. It is shown that an adsorption band at 1040 sm^{-1} characterizes at present within extracellular proteins of active oxygen, which participates in a destruction of the nutrient medium carbon. The intensity of adsorption band at 1040 sm^{-1} may be used for additional estimation of physiological activity of the fungus. The relationship between accumulation biomass of new isolates at fluid nutrient medium and intensity of adsorption band.

Bilityuk A. P., Novitska N. V., Maksimyuk V. P. Efficiency of mineral fertilizers influence on yield and quality of winter triticale grain in the west Polesye // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 38–41.

The results of investigations of doses, terms and types of mineral fertilizers in the growing technology of winter triticale on sod-podzol soils of the West Polesye of Ukraine after peas as predecessor is determined. Established that the optimal dose of fertilizer for the formation of high-quality grain varieties of winter triticale Polesskii 7 is $N_{120}P_{60}K_{120}$, with application of $N_{30} + N_{30}$ before sowing and $+ N_{30}$ III V + N_{30} VII stages of organogenesis in the form of urea and CAS. At this agricultural background grain yield obtained 59,8–58,8 kg / ha with a protein content 14,1–14,2% and 21,1% gluten, respectively.

Lysak S. A., Lysak Z. V. Stability of the tomato to black bacterial blight (*xanthomonas vesicatoria* Dowson) // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 42–46.

Research of 2008–2011 resistance of tomato original material to black bacterial blight is considered in the article. Studied of 579 collection samples of a tomato of a different ecological and geographical origin. The collection material is differentiated on level of polygene stability to black bacterial blight (*Xanthomonas vesicatoria* Dowson). The steady samples allocated to given illness and standards differentiator are recommended for using in selection work to the given sign.

Pospelov S. V., Shershova S. V. Researches of biological activity of lectin-containing extracts of pale coneflower (*Echinacea pallida* (nut.) Nutt.) // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 47–51.

The experimental data assessment biological activity of the lectin containing extracts of pale coneflower (*Echinacea pallida* (nut.) Nutt.) cv. "Beauty of praries" and their components by testing on watercress salad sprouts are given. It has been established that the concentration of 10–1% depressing roots the test system. The stems extract and their components had been the most evident stimulating effect (+25.3%), and lectins fraction of extract of rhizomes with roots(+15.3%). In the majority of variation the complete extract of inflorescences slightly stimulated growth of watercress salad, but their components shown as stimulate activity(+25.3%) as depressing activity(-23.5%). The extracts of leaves had allopathic effect the almost in

whole range concentration. The following conclusion a drowsy hormonal effect the extracts of pale coneflower is possible.

Bilyavska L. G. New early ripening variety of soybean. Anthracite // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 52–53.

The new modern tasks in soybean selection, which are connected with soil-climatic conditions, varietal adaptability and considerable genetic culture potential are presented. Using sources of adaptability to limiting factors of environment by hybridization some new material has been created. This helped raise new soybean variety Anthracite. Early ripening highly productive variety Anthracite has been registered in the State Register of plants variety of Ukraine. Morphological description and economic aptitude of this sort are presented. The sort differs with its resistance to diseases and pests. The beans don't burst. High capacity of protein and oil in seeds, quick moisture efficiency during ripening are particular qualities of the variety.

Beliavsky Yu. V. Panary capricorn beetle (*Dorcadion carinatum* Pall.) in sowing of corn // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 54–56.

The article presents the results of phytosanitary monitoring of corn agrocoenosis in Poltava region which is a leader on its sowing areas and productivity indices in Ukraine for the last five years. The appearance and the area of distribution of a capricorn beetle (*Dorcadion carinatum* Pall.) in sowing of corn have been fixed for the first time for the last decade. The biological peculiarities of this vermin have been presented. The reasons of its mass appearance in conditions of Left-bank Forest-steppe of Ukraine in summer 2011 have been grounded. Data of vermin number and peculiarities of plant damage by it have been given. The indices which influence directly the development, the area of distribution and possible losses of corn yield from a panary capricorn have been determined. Methodological recommendations concerning autumn and spring examination of farm lands and phytophage number control have been presented.

Bondus R. O. Genetic resources of potatoes Ustimovka experimental station of plant production // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 57–61.

The results of studies on the formation and maintenance of the collection of potato crop Ustimovka experimental station (south forest-steppe of Ukraine), which consists of 615 samples from more than 30 countries. The basic directions of work, the value and importance of formation, replenishment and conservation of potato gene pool. Revealed aspects of the search for sources of agronomic traits. Arrangements were made to attract, and NIJ study of introduced material, formed by the four indicative of the collection, selected samples of the Securities agronomic traits, which-rye transferred to research institutions of Ukraine for further inclusion in breeding programs for potatoes. The use of sources of agronomic traits from a collection of potato gene pool makes it possible to create a new valuable source material for breeding.

Garbar L. A. Spring rape supply with basic nutrients depending on fertilizers rates // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 62–64.

Research results on dynamic of macronutrients content in spring rape plants during vegetation depending on different fertilizers rates stated in this article. Research shows that basic (NPK) macronutrients more intensively accumulates at the beginning of vegetation and than reutilized moving from vegetative to generative organs thus provides normal growth and development of plants on further vegetation.

Mischenko S. V. Correlations between basic cannabinoid combinations of plants and non narcotic modern varieties of hemp // News of Poltava State Agrarian Academy. – 2012. – № 2. –

P. 65–69.

Established that CBN has minimal relations to other investigated components of cannabinoid of plants variety of Central Russian type USO-14. Due to the strong interconditionality of CBD and THC it is necessary to carry out the selection of plants in which CBD and THC are absent. CBD is the antagonist of basic psychotropic component THC. But his presence is not desirable, because it can be cause of appearance of THC. In south type of Zolotonoshsy USO-11 CBN is not connected with investigated components of cannabinoid, and correlations and interconnection between three cannabinoid components are weaker comparatively variety of USO-14.

Rudas L. A. Manifestation of quantitative traits in the hybrids F₁ of tomato parental forms which contained increased levels of lycopene in fruits // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 70–75.

Investigation the tomato hybrids F₁ quantitative traits has shown that total yield, number of fruits per plant, number of commodity fruits per plant are manifested by the type of overdominance; weight of commodity fruit – overdominance, dominance and intermediate inheritance; interval between appearance of vigorous shoots and beginning of ripening number – dominance, intermediate inheritance and overdominance by example 47 of hybrid combinations, parental forms of which were varieties and lines of different groups ripening and parental forms – carriers of genes B^{og}, hp, dg: Manapal lines, Dark green (dg), Morioka 17, MO 112 (hp), PU-74-43 (B^{og}).

Koval V. V., Natalochka V. O., Tkachenko S. K., Minenko O. V. Modern state of fertility of soils of the Poltava region // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 76–82.

The current state of fertility of agricultural soils in Poltava Region has been summarized in this publication. The dynamics of changes in soil fertility indicators has been analyzed. Recommendations on prevention of soil degradation and suggestions regarding soil restoration have been given. Laboratory studies between 1964 and 2010 have proven that intensive soil cultivation (management), which does not use scientific basis, leads to the quicker rate of humus reduction. The highest rate of humus reduction is observed for the soils of the 41st group of the soil productivity classification (podzolic and lightly degraded chernozem, as well as dark grey heavily degraded soils). Over the 16 year period the humus level in arable soil layer has reduced by 2.21 %. The lowest reduction of humus was identified in the soils of the 59th group of the soil productivity classification (deep common chernozem with low level of humus and their (residual) alkaline varieties. The other soil types take in-between position. It has been determined that, even with the comprehensive approach to organic matter, the nutrients equilibrium balance in soil gets damaged. Only a joint usage of organic and mineral fertilizers, as well as enrichment of crop rotation system with leguminous plants (soya bean, peas and perennial grasses) would allow improving the quality assessment of the soils.

Kholod S. M., Kharchenko L. Ya., Illichov Yu. G. Stability of maize to source material bubble smut and its harmfulness in the south forest-steppe zone of Ukraine // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 83–88.

The characteristic of introduced genotypes of maize for resistance to smut diseases. An analysis of 48 samples of corn defeat various groups of ripeness. Confirmed by the data that the main influence on the development of corn smut disease had abiotic factors, particularly temperature and precipitation. The structural analysis of the yield on the parameters: the mass of grain per ear, grain number, weight of 1000 grains. Substantial grain losses were observed in lesions of 5% of plants, and in lesions of 40% yield practically non formed. Allocated to the samples,

which are sources of resistance to bubble smut, which can be used in breeding maize for resistance to the disease.

Churilov D. G., Kalinichenko V. M., Kalinichenko A. V., Malynska L. V. Government control of market of hard biofuel as one of factors of balanced use of nature // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 89–93.

The article considers a possibility of using biomass in form of fuel granules as an alternative to traditional energy resources. The analysis of existing standards for the manufacture of fuel granules in Europe and USA as well as basic requirements for this type of biofuel was carried out. Presented the difference between current and previous standards. The economic expediency of adoption of related standards in Ukraine was represented. The necessity of introduction of quality standards for biofuel producers in Ukraine, particularly for was proved.

Voitenko S. L. Genesis of Mirgorod breed pigs // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 94–99.

It has been almost 70 years since the approval of Mirgorod breed pigs – the second Ukrainian domestic breed selection. This article represents the stages of formation of breed, its current status, features of the karyotype, the efficiency of use in the thoroughbred breeding and cross breeding, comparative characteristics of different blood groups of genotypes. Established that the use of Mirgorod sows with boars of specialized combination of genotypes of foreign selection forwards fat thickness, increase in the yield and improving meat quality of fattening young animals while maintaining the quality of pork at the ou Mirgorod breed with wild boar to restore the output of the genotype of the breed is proved.

Tronchuk I. S., Rak T. M. Annual needs in conversion power and digestible a protein cows with yield of milk from 5000 to 9000 kg // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 100–104.

It is generalized theoretical bases and a modern advanced experience of feeding of highly productive cows. On the basis lactation curve yields of milk for a lactation daily yields of milk, monthly and annual requirement for nutrients are defined. It is established that annual requirement in exchange energy cows with a yield of milk of 5000 kg is 57119 MDg, at 7000 kg – 69430, at 9000 kg – 84363 MDg, in digestible a protein accordingly 495,17; 643,68 and 790,35 kg. It is specified structure of diets in percentage of their feeding power and on the basis of these indicators the annual requirement for forages is defined. In particular annual requirement for the concentrated forages (combined feed-concentrates with feeding power of 1 kg not below 10,5 MDg) at yields of milk of milk of 5000 kg is 14,17 c, at 7000 kg – 21,24 and at 9000 kg – 31,31 c.

Dorotyuk E. M., Tsukanova M. O., Podrezko G. M. Conversion of protein of forage in food albumen of carcass of cows of different lines of znam'yanskiy of type of poleskoy meat breed // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 105–107.

The results of study of conversion of protein of forage are expounded in the food albumen of carcass of cows of znam'yanskiy type of different lines. It is proved that cows of Radist line 113 have the best conversion ability of transformation of protein of forage in a food albumen. It is established that carcasses of cows of Radist line had the most maintenance of albumen(53,8 kg or more than at nonlinear analogues on 10,3kr (19,1%), Balovnya line 6 on 6,3 kg (11,7%), Podarennoho line 400 on 5,5 kg (10,2%).

Birta G. A., Burgu Yu. G. Forming of the meat and fatt productivity of different genotypes of pigs // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 108–112.

Fattening and meat productivity of animals is stipulated their genotype and environment. Under act of the inherited qualities

and terms of environment development of animals passes differently. On the physiology stages of the development their rates of forming. They largely depend on intensity of exchange of matters in an organism. In influence of genetic and paratypic factors on separate economic-useful signs clear conformity to the law, which is expressed in the following, is traced: what large force of influence of factors, the more so high degree of cooperation of genotype and environment. Correlations of fatty and bone fabrics at the backwall of pigs are determined not only age, reason, size of eventual living mass at completion of fattening, type of fattening, but also by direction their productivity and pedigree work.

Metliiska O. I., Kopylova K. V. Polymorphism of mitochondrion DNA for an estimation of genetic structure and subspecies classifications of Ukrainian bees // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 113–117.

The generality of an evolutionary origin Ukrainian, Carpathians and the Caucasian bees on locus COI-COII mtDNA is established that reference of the named subspecies to C Mediterranean branch in populations of the Ukrainian bees only mitochondrion haplotype Q allows testifies to absence hybrids families, crossbred by bees of Central Russian breed. Groundlessness of out-of-date representations about the Ukrainian bees as ecotypes a dark European bee under name *Apis mellifera acervorum* demands their revision taxonomy classification according to offered in M. Engel *Apis mellifera sossimai*. The established relative conservatism of intergenic site COI-COII a way restrictions the analysis can be caused functional importance of the given genetic locus.

Vatskiy V. F., Velychko S. A. Suckling productivity of cows of Ukrainian red suckling breed in connection with their reproductive ability // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 118–122.

The features of connection of the suckling productivity and reproductive ability of cows of Ukrainian red suckling breed are studied. It is set that with the increase of suckling productivity level, reproductive ability of cows gets worse. It is defined, that an optimal service-period is within 51-90 days; for highly productive cows duration of service period to 121 day is not a critical. An index which characterized the level of cows suckling productivity in taking into account their reproductive ability is offered. The results of researches enable to improve the use of suckling cattle in an economy by correct organization of herd reproduction.

Paliy A. P., Zavgorodniy A. I., Degtyarov I. M. Physical and chemical properties of disinfectant preparation of «DZPT-2» // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 123–125.

In the article are presented results of determination of physical and chemical properties of new disinfectant preparation of «DZPT-2». It is established disinfectant preparation has a less surface-tension than water and shows insignificant corrosive activity standard steel ST3, stainless steel X25T, galvanized sheet steel, aluminium AD1M, duralumin D1, brass L80, copper M1 by comparison to a preparation-standard (3 % alkaline solution of formaldehyde) and can be used for the sanitization of metallic constructions and equipment of stock houses.

Klymenko A. S., Klymenko I. I., Mazurika V. V., Yurchenko U. V. Helminthosis of cattle of private economies of Poltava region // *News of Poltava State Agrarian Academy*. – 2012. – № 2. – P. 126–129.

The results of coprological researches of cattle of private economies of the Poltava region are in-process resulted. Researches are set parasitizing of *Fasciola*, *Dicrocoelium*, *Paramphistomum* and *Intestynal Strongylata* as mono- and poliinvasion. The extensiveness of helminthosis is 6,25–35,7 %, and

intensity – 0,3–4,3 pc. / 1 g. The high degree of invasion of animals confirms actuality of the noted problem, that is why the prospect of subsequent researches is obligatory development and introduction in the private households of measures of fight against helminthosises.

Shkromada O. I. Effect of disinfectants on microorganisms and the structure of cement stone // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 130–133.

This article suggests disinfecting additive for construction materials that strengthen and improve the structure, preventing the growth and development of microflora: titanium dioxide (rutile) titanium anatase, red iron oxide pigment in pig enterprises. Carried out mycological studies of the samples and gave them a comparative evaluation. Fungicidal properties of building materials studied for 14–28 days. It was found that the samples with the addition of a disinfectant iron oxide pigment of fungal colonies decreased during this period.

Orlov S. N., Comparative study of specific stability isolates and strains *Brucella Abortus* // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 134–138.

Investigated the stability of the species (cultural and morphological, antigenic properties) 6 isolates, dedicated in different stages of eradication of brucellosis in Ukraine, and 3 reference strains of *Brucella abortus*. In sowing on nutrient medium all selected culture after prolonged storage in the lyophilized state at a temperature (4±1) °C for 20–50 years were found alive. In the process of cloning revealed that isolates and reference strains retained the characteristic types of species of brucella in the S- or RS-forms.

Kone M. S., Petrenko A. A., Tsybulko O. O. Epizootological information of infectious hepatitis of dogs and comparative estimation of efficiency of charts of treatment in LTD. «Vet-servis» Poltava // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 139–141.

Studied age-dependent and pedigree sensitiveness, seasonality and dynamics of display of infectious hepatitis of dogs in the conditions of veterinary clinics of LTD «Vet-servis» Poltava. The various charts of treatment of infectious hepatitis are offered for dogs. The new medical chart of infectious hepatitis of dogs is developed. It is set that infectious hepatitis is more frequent registered among dogs in age from one to two years (25,7 % cases). Not thoroughbred animals more feel like a disease (25,6 %). Disease has the expressed seasonality which shows up more frequent cases of origin of hepatitis in a spring-summer period. The our new chart of treatment has 100 % efficiency.

Dadashev B. A., Cheremisina S. G. Lending of agroformations: problems and directions of stabilization // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 142–149.

The state and the main problems of the credit mechanism in agriculture of Ukraine is analyzed. Summarized the characteristics and the necessity of collateral activities of agricultural producers in modern economic conditions. The characteristics of the agricultural enterprises that affect their activities with commercial banks. Identified the main causes hindering intensification of credit facilities in the agricultural sector. The basic directions of the stabilization mechanism of agricultural lending units.

Aranchiy V. I., Peretyat'ko I. V. Safety of external economic of Ukraine in the context of international integration // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 150–161.

Adoption of market relations in the external economic sector of economy of Ukraine after 1991 stipulated the substantial increase of interest of researchers to the problem of external economic safety of Ukraine. In this article basic progress of external economic sector of Ukraine trends, its relationships with basic foreign trade partners are considered. External

economic safety as a complex of integral size which consists of export, import, currency, promissory and investment safety is probed.

Petrenko Zh. A., Tomashevskaya O. A. Efficiency using of land resources: economical and analytical aspect // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 162–168.

The factors of increase of efficiency of using of the land holdings of region are reflected in the context of their value in search of reserves and directions of growth of economy of agrarian enterprises. The deep quantitative statistic and economical analysis of effective synthetic economic performance indicators is carried out through the prism of factors, predetermining the level of their return in indexes arrived from the hectare of area. The quantitative measure of influence on profitability of the indicated unit of area of such factors as: quality of the land holdings; intensity of financial and labour investments; supply with land workers of these enterprises; supply with fund productions.

Andrusiak N. O. Economic efficiency of the opened ground vegetables production at the agricultural enterprises in Cherkasy region // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 169–173.

In the article is analyzed the economic efficiency of opened ground vegetables production in Cherkasy region. Using the general statistical report the analysis of main economic indicators of open ground vegetable production was considered. Territory difference in opened ground vegetables production with using integral efficiency index was determined. Factors which show the results of activity and found the ways of improvement economic efficiency of vegetables production was also

Dovzhyk O. O. The role of the administrative account and problems of its introduction // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 174–179.

The role of the administrative account in a control system of the enterprise is analyzed. It determines that management accounting is an effective management instrument as it creates a competitive advantage in the market. The basic principles of construction of system of the administrative account at the enterprise of a modern type are selected. And its importance for maintenance of effective functioning. The main problems preventing the implementation of management accounting are analyzed in the article. And the activities for successful implementation of this process in the Ukrainian enterprises are determined here.

Pisotskiy A. A. Efficiency of agricultural production in the Poltava region and areas of improvement mechanisms of its development // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 180–184.

The analysis of the level, dynamics and efficiency of agricultural production in the Poltava region. The organizational and economic mechanism to support the development of agricultural entrepreneurship at regional level that should be part of a national program of development of agrarian sector of Ukraine. A process to apply and program-target approach for the formation mechanism of state support for agricultural entrepreneurship at regional level as an integrated system.

Udovichenko M. O. Economic sustainability of agricultural companies: factors, species, model making // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 185–189.

There is substantiated the importance of the assessment of the economic sustainability for various users of information about activity of the enterprise, differentiated the influence of factors on the economic sustainability of agricultural enterprises at the macro, meso and microlevels; Isikava diagram was built, reflecting factors of sustainable development of agricultural pro-

ANNOTATION

duction, supplemented the present classification of economic sustainability according to a number of features; a model of economic stability of the enterprise, considering the maximization of economic potential and a minimum deviations from the equilibrium state.

Volkov S. I., Smerdova T. A., Bulba E. N. Analysis of the biological structures stimulation by electrical impulses // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 190–194.

A model is proposed and analyzed the electrical properties of biological tissues, which takes into account the complex impedance of a living system and the polarization of cell membranes due to the work of ion pumps. The differential equation that relates the excitation voltage with the AC frequency current and allows a theoretical basis for the law of the time of stimulation. Based on the proposed model, we consider the cases of irritation for the rectangular pulse and sinusoidal AC input voltage.

Padalka V. V., Lyashenko S. V. Technology of deep processing of soil on subsidiary plots // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 195–198.

Scientific researches have confirmed necessity destruction of a dense bed of soil. Existing agrotechnical technologies of processing soil are inapplicable for conditions of subsidiary plots. The technical solution of a problem by means of use small-displacement power cars is offered. The design of soil-cultivating working body is offered and results of experimental researches are resulted. The recommended scheme for performance of technological process of deep loosening of soil on subsidiary plots is resulted.

Samojlenko T. V. Features of the American model of cooperative stores on distribution of grain // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 199–202.

The features of the American model of cooperative stores on distribution of grain were considered. Existing local, regional, interregional and international cooperative stores that are engaged in grain agricultural business were analyzed. The basic ways of development of grain-growing marketing stores, reasons of their merger and consolidation in conditions of modern financial and economic crisis were explained, the analysis of the economical growth of the cooperative stores, that are situated in the middle zone of the USA was conducted. It is established that, for the expansion of their scope of activity and strengthening of their market power, cooperative stores develop joint ventures or joint agency markets.

Shevnikov D. M. Influence of mineral fertilizers for nourishing mode of soil at growing of spring wheat // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 203–206.

Using of mineral fertilizers, especially nitric, in moderate doses (N_{23-45}) in combination with phosphoric and potassium allows to improve the nourishing mode of soil. Supply plants by nourishing elements as a result of mineralization of organic compounds by the ground microorganisms and by a transition mineral heavily soluble substance in soluble. It forwards more favourable terms for growth and development of plants and maintenance of fertility of soil at high level. The redistribution of nitrate and ammoniac forms of nitrogen took place in the end of vegetation of spring wheat.

Chukhlib Y. O. Development of organic production in Ukraine and Poltava region and prospect of it research // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 207–211.

Substantiated the necessity of greening agriculture to promote environmental preservation and production of safe food products and food raw materials. Given the definition of "organic farming" and described its main features. Review of literature regarding the status and trends of organic agriculture in Ukraine, particularly in the Poltava region. Defined basic problems of research in the organic production sphere in the coming years.

Boyko I. A. Monitoring fluorine, one of priority elements of underground drinking-water of the Poltava hydrochemical province // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 212–216.

Conformities to the law of distributing and migration of fluorine and form of its finding are considered in underground waters of the Poltava region. It is discovered that principal reason of formation of fluorine-containing waters of region is unloading of deep mineralized underground waters in the areas of tectonic activation, violations of physical and chemical equilibrium of the natural system and fluorine-containing breeds. Influence of active forms of fluorine is analyzed on a degree and character of epidemics of population and the basic methods of defluorination of drinking-water are considered.

Kuzmenko A. K. Ecological and economic system: concepts and structure // News of Poltava State Agrarian Academy. – 2012. – № 2. – P. 217–221.

A category of ecological and economic system, as integrity of the ecological and economic systems, which is characterized intensity of internal communications and emergent properties. The analysis of structural elements of the ecological and economic system is conducted. The scheme of co-operation of constituents of the ecological and economic system is offered with a glance influence by agricultural enterprises.

Формат 60x90/8. Ум. друк. арк. 29. Тираж 100 пр. Зам. № 160.
Видавець і виготовлювач: Полтавська державна аграрна академія.
Адреса: 36003, м. Полтава, вул. Г. Сковороди, 1/3.
Свідоцтво суб'єкта видавничої справи ДК № 2174 від 26.04.2005