Kondratenko P. V., Shevchuk L. M. Perspectives of providing population of Ukraine with horticultural products // News of Poltava State Agrarian Academy. – 2012. – № 3. – P. 7–10. The problem of balanced nutrition of Ukrainians, in particular, providing the human organism with the most important nutritive substances contained in fruits and berries has been examined. Distribution of the main fruit crops croppage concerning its usage, e.g. realization fresh and processed fruit has been carried out on the basis of the perspective program of the horticulture development up to 2017. Taking into consideration the terms of the fruits and berries ripening and their possible storage period the monthly norms of their consuming by the person have been calculated as well as the provision of human organism with the vitamin C.

Pisarenko P. V., Moskalets V. V., Moskalets T. Z., Moskalets V. I. Agroecological aspects of microbial preparations application on the winter triticale crops // News of Poltava State Agrarian Academy. – 2012. – № 3. – P. 11–19. The sensitivity of the winter triticale genotypes to the microbial preparations activity has been studied. It has been noted that each variety of winter triticale differently sensitive to the activity of microbial preparations. Plant varieties AD 256, Slavetne, Jaguar, Vivate Nosivsky are more sensitive according to the productive indices in case of using both nitrogen-fixing and fosfatmobilizing microorganisms, plant varieties DAU 5 and Yaguar – using diazobakterin, variety Augusto – albobakterin.

Zhemela G. P., Shakalyy S. M. The predecessors influence on crop productivity and grain’s quality of soft winter wheat // News of Poltava State Agrarian Academy. – 2012. – № 3. – P. 20–22. The data about the influence of such predecessors as a bare fallow, peas and corn for silage on crop productivity and quality of soft winter wheat grain have been given. It has been noted that winter wheat grown after a bare fallow has the greatest crop productivity and the best grain quality indices. Corn for silage was the worst predecessor. An average crop productivity and grain quality was received after peas. Therefore, an important reserve of crop productivity increasing and its quality are scientifically justified choice of predecessor.

Zhemela G. P., Kuznetsova O. A. Influence of high quality properties on productivity and quality of soft winter wheat grain // News of Poltava State Agrarian Academy. – 2012. – № 3. – P. 23–25. Influence of high quality properties on elements of the productivity structure (quantity of productive stalks, number of grains in an ear, weight of grains from an ear, weight of 1000 grains) and forming soft winter wheat productivity has been investigated. It has been established that the greatest quantity of productive stalks, number of grains in an ear, weight of grains from it and also weight of 1000 grains of the varieties formed in the conditions of 2011. According to all indices of structure elements of productivity the variety Kolomak 5 was the best. Influence of variety on productivity is 20–25%.

Primack I.D., Kupchyk V., Kolesnik T.V. Changes of agrochemical properties of standard black soil in different systems of main soil tillage and fertilizing in the central forest-steppe Ukraine // News of Poltava State Agrarian Academy. – 2012. – № 3. – P. 26–30. The influence of the four systems of main soil tillage and fertilizing on the changes of agrochemical properties of standard black soil and efficiency of cultivated crop rotation has been shown. The statistically reliable increasing of humus content in the plow layer of soil in two crop rotation for a long shallow cultivation and applying into each hectare of arable land 12 tons of manure + N8P14K14 has been established. In the field five-course rotation of the central forest-steppe Ukraine deep (28–30 cm) crop plowing in one field (under a second maize where manure is applied) is recommended. Shallow crop plowing (10–12 cm) is recommended in the rest of the field.
weakening cenotic stress in row plants sowing and less experimental sowing rates accelerated plants development phases from sowing time to bushing and also during interphase stage from tubing to flowering was observed. With this, the above mentioned variants showed a longer plant development period from full germination to tubing and from flowering to wax ripeness.


The results of long-term work about fundamental study of plant-breeding and agro-ecological value of samples of spring vetch of Poltava State Agricultural Experimental Stations collection are given in the article. Sources of economic-valuable signs are distinguished. The prospects of using macro and microsymbiontes co-operation are preliminary found out. Possible ways of using both crop and some varieties of domestic selection are outlined in developing biological agricultural system elements the with the aim of improving nitric plant feeding and protection of their rootage from soil patogens negative influence.


Significant climate warming on our planet made possible to expand growing area of castor plant (valuable oil crop) (Ricinus communis L.) in Ukraine. Influence of climatic conditions upon castor plant growth in transitional south part of Poltava region is analyzed. It is established that high temperature and adequate rainfall during castor plant vegetation in experiment under seeding rate of 40000 items per hectare facilitated to forming crop capacity of nearly 15 centners per hectare. Mass of 1000 seeds was 270.2 g; oil content was more than 52 %. These indices ensured castor plant crop capacity of 7.8 centners per hectare.


The article investigates the suitability of growing switchgrass on degraded soils with the aim of obtaining the raw material for biofuel production. Phenological observations during the growth and development of the first year plants were performed. Quantitative parameters (height and stand density) of different varieties and their interrelationship for biomass production depending on row spacing were evaluated.


The influence of sowing times and seeding rates on formation of winter wheat varieties productivity under conditions of western Polissya of Ukraine has been studied. The obtained results shows that the highest yield of winter wheat varieties on sod-podzolic soils on background of NPKfK, formed with sowing of Zolotokolosa variety at 30.09 and seeding rate 5 million vital seeds per hectare – 6.48 t/ha and Smuglyanka variety with sowing at 10.10 and the same seeding rate – 6.32 t/ha. The best grain quality was obtained with sowing of Smuglyanka variety at 20.10 and Zolotokolosa variety – 10.10.


The paper presents the results of the investigation of the soil contamination density of 90Sr in Zhytomyr district which is classified as a radionucide – free territory as in Korosten and Narodychi districts which suffered as a result of the Chernobyl disaster. Our investigations proved that the density of 90Sr and 137Cs fallout in the districts of the Northern Ukraine testify to considerable differences in the contamination levels. Thus, the contamination density in Zhytomyr district was on on average 1,4 kBq/m², and in Narodychi district the density reached 30,3 kBq/m².


Historical information about mass reproduction of sugar beets main pests in the Left-bank Forest-steppe of Ukraine (name of kinds, years of mass reproductions in space and time) are given. On the basis of intersystem method of prediction algorithms of mass reproduction of sugar beet main pests, namely cutworm, beet webworm, cabbage moth and weevil are developed. And also prognosis of beginning the next flashes of their quantity on the period to 2018 year is developed.


118 soft winter wheat varieties of different geographical origin are analyzed by grain quality indices. The varieties are divided into groups depending on grain coloration with the help of phenolic test. The level of manifestation of grain quality indices of winter wheat varieties according to groups of phenolic test is established. The 5th group varieties with better grain quality are selected. It is established that winter wheat varieties Levada, Zolotokolosa, Remeslivna, Harus are valuable sources for getting selecting material of high quality.


The results of the complex experimental research of soil samples and main physical-chemical characteristics of decentralized water supply selected in the center in Poltava (Dendropark area) are given. Analysis of influence of water-soluble soil component on this aquifer is conducted. The investigated water does not meet the physiological needs of the human body has been proved on the basis of results and comparison them with the requirements established by State Sanitary Regulations and Standard. Conclusions about regular control of soil and drinking water quality and improvement for using by population are drawn.


Complex research of soil samples is done and the main physical-chemical indices of water samples from centralized and decentralized water supply in the village of Ivanivka, Karlivka district, Poltava oblast have been determined. Soil state is defined like degraded gray soil which requires regular organic fertilizer applying. Analysis of influence of water-soluble soil component on the given aquifer has been conducted. Water quality discrepancy of centralized water supply to human physiological needs has been proved, and decentralized water supply does not meet the requirements of State Sanitary Regulations and Standard.


Pigs of domestic and most foreign breeds, and also their cross-breeds are characterized by high precocity and suitability for all types of fattening. At the intensive fattening to 6–7 monthly age pigs have 100–120 kg of live weight, costs on 1 kg of liveweight gain are not more than 4,5 feed unit. Pigs which during the row of investigations unsystematic bred in the conditions of bad feeding have such live weight only in age older than one year at the expense of 1 kg of live weight gain 8–10 feed units and more. Meat of such
pigs is rough, with the thick layer of hypodermic fat. With the improvement of feeding and terms of maintenance their precocity increases, but at the same time remains lower than animals' which were systematically selected on higher precocity and high output of meat and which were bred in the conditions of the valuable feeding and proper maintenance.


The results of influence of hydrous creep-feeding on the technological peculiarities of goat milk and in particular on the dispersity of fat globules have been shown in this article. During milk testing of goats, which had some additional creep-feeding such as «Elamin» and potassium-iodine in their ration it has been determined that a fat component has higher dispersity of fat globules that increases milk assimilability by human being. Goat milk which contains iodide components is more technological than goat milk without these components because its not needed to conduct homogenization.


The problem of expedience and efficiency of the use of two- and three-year cocks in the selection of bird of egg direction productivity with cell technology of maintenance and in the system of artificial insemination has been researched. Sperm quality of cocks does not change with the age, reproductive capabilities of old cocks and indices of incubation qualities of eggs at the use them in the system of artificial insemination are not diminished. Egg productivity of daughters, got from the cocks of the first year, substantially lower, than from daughters, got from 2–3-years-old cocks. It is recommended to use old cocks very limitedly and, mainly, on groups of multipliers of clean lines for an increasing desirable genotypes in the flock. Cocks in age of 2–3 years are fully estimated on genetic and reproductive parameters and their use in breeding of egg bird increases the selection effect.


In this article the features of application of mathematical design methods for optimization of pigs herd turn on the example of agricultural enterprise of LTD «Savincio» Mirgorodsky district of Poltava area with the use of COMPUTER and program Microsoft Excel are considered. The model of optimization of pigs herd that allows to plan the necessary initial quantity of population of pigs on the end of year and motion of population for a year between sexual-age-old by groups by building on has been developed.


The substantial ultrastructure changes in the cells of atipical mycobacterium of M. kansaii, M. gordoniae, M. xenopi, M. flavesens after influence of aldehydic disinfectant «DZPT-2» and oxygen preparation «Ekocid Co» have been established by electronic-microscopic researches. A difference in operations disinfectant preparations on microbial cells, that is related to the features of mechanism of active-operating substances activity which are included in their composition is marked. It is established that disinfectant preparations in the bactericidal modes destroy mycobacterium due to the creation of irreversible changes of their submicroscopic organization.


The data on research of bactericidal action of complex metallic disinfectant are given in article. Phenolic factor which expresses the relation of concentration of solutions of investigated substance to concentration of phenol that defines in an equal time interval at identical temperature equivalent temperature disinfectant effect was defined for this purpose. Albunimous index, an indicator of decrease in activity of a disinfectant in the presence of fiber was also defined. As a result of researches it is established that, bactericidal action complex metallic disinfectant is stronger than bactericidal action phenolic acid in 157,98 times. KMD can show bactericidal action on processed surfaces during contact with albunimous substances, but in that case its efficiency decreases in 2,92 times. That is considered at installation of effective concentration of working solutions KMD.


The article presents data about the embryotoxic and teratogenic properties of the drug «Oksiprof». It is established that intramuscular injection of the drug «Oksiprof» female rats at a dose of 0.1 ml/kg at 1–6, 6–16 and 16–20 days of pregnancy does not have embryotoxic and teratogenic effects on embryos. The essential difference between the fecundity of females experimental and control groups is not established. The average number of fustes per female in the experimental and control groups ranged from 9,1 to 9,6. Infant rats, obtained from the experimental females were viable and kept up with control ones in growth and development.


The results of studies of economic efficiency green manured crops are given. It has been determined that the biomass cost of holy clover, vetch winter, buckwheat, sweet clover reaches from 500 to 3000 hzn. per hectare. Cost of nutrients (NPK), accumulated in the biomass ranged from 1000 to 2500 thousand per hectare. The total economic impact of green manured crops in Poltava region, which is from 1500 to 6000 thous. per hectare has been calculated.


The modern state is investigated in the article, the dynamics of basic indices of small enterprises development in Poltava oblast is analysed. Activity of local-authority is examined in relation to the increasing efficiency of small enterprises activity. The problems of small enterprises development in Poltava oblast are revealed. The directions of these problems decision are defined. The small enterprise sector, as the meaningful element of development of market economy of Poltava oblast grows into an important stabilizing factor, possible mean of solving complicated economic and social problems.


The actuality of the problem of increasing the expenditure cover level during the process of milk production and the possible ways to solve it have been elucidated in the work. The influence level of sale price and cost price of a production item on the level of expenditure cover at Ukrainian agricultural enterprises which produced and sold milk in 2010 has been determined by using grouping methods. The existence of a close feedback between indicators of cows productivity and the unit cost of production has been proved. Existence of dependence in 2010 between the price and cows productivity, which vary in the same direction are increasing.

The theoretical aspects of the marketing strategies development and their improvement on the basis of rational approaches, the possible combinations of implementation and experience of their realization at modern agro-industrial enterprises in Ukraine are considered. Formation of the marketing strategy is a significant and complex stage of research. Development of strategic marketing principles should be based on the system approach that meets the compliance of the objective economic laws, especially the supply and demand trends, and the object of planning. Marketing strategies are specified by defining the principles of behavior of all market participants and the establishment of the general line of the company.


According to the results of laboratory researches of technologies of processing exhausted leaden-zinc galvanic elements and accumulators the ecologically safe chart of their utilization is offered. The stages of investigational chemical processes and results of their transformations which take place at the complex processing of exhausted accumulators are given. The improved methodology and chart of technological process utilization of leaden-zinc sources of current with the use of existent and standard equipment for the processes of processing chemically active reagents is offered.


The method of emitter application on the electrodes of gas-discharge lamps by dipping them in the emitter suspension with preliminary heating has been developed. Experimental studies were carried out on electrodes of DRL-250 lamps on study the effect of preliminary heating on emitter weight gain, applied on the electrode and the degree of filling electrode internal cavities with emitter on the base of which the technology of emitter application on the electrodes of gas-discharge lamps with the preliminary heating has been offered. The article also gives the results of experimental tests and obtained the comparative characteristics for methods of applying the emitter on electrodes in HID lamps with the preliminary heating.


The biological activity of extracts of pale coneflower (Echinacea pallida (Nutt.) Nutt.) at the different temperatures was investigated. The adaptive effect of extracts of pale coneflower at the temperature 10 0C and 15 0C was proved. Testing extracts at +20–25 0C after 24 hours in the most dilutions retarded growth of roots of barley, but after 48 hour had growth-stimulating effect only at high concentrations (about 15.71 %). It has been established that the temperature 30 0C extract slightly stimulated the test system at concentrations (about 5.02–7.46 %) at the first dimension and at a dilution of the extract 10–4% (+5.15–11.34 %) after 48 hours. It is concluded that extracts of pale coneflower contains biologically active substances, whose activity depends significantly on the exposure temperature.


The problems of determining necessity in specialists with higher education in modern economical conditions and activity of higher school on training specialists are considered in the article. It has been underlined that today in Ukraine the calculation of necessity in specialists with higher education is not done, that results in structural disproportions in trainig specialists of higher qualification. Basic factors that must be taken into account at forming necessity in specialists with higher education have been considered for overcoming indicated problems. The method of calculating standard for determining necessity is offered.


The comparatively-legal analysis of legislation of European Union (farther - EU) and Ukraine in concerning realization of the principle of sustainable development in the process of quality management of drinking-water and protection of underground water resources, has been carried out. The process of formation, modern state and progress of regulation of legal relationships in the management by groundwater have been shown. Certain aspects that must be taken into account in the process of perfection of control system by water resources have been defined; recommendations on harmonization of legislation of Ukraine in the field of groundwater with the EU are given.


The cultivated cabbage occupies a leading place among vegetables. In all regions of growing it is annually damaged by pests, as a result without effective measures harvest loss is 30–70 %. Complex of pests cruciferous has about 300 kinds, among them there are ten kinds of specialized pests. The problem of features of development and long-term seasonal dynamics of quantity of representative of cultivated cabbage leaf beettles that is cabbage moth in the Poltava area has been investigated.


During the four-year study it has been established that conditions of growing years have the greatest influence on the yield of brewer's barley. Fertilizers are the most important controlled factors. Provision of barley plants with fertilizers N30P30K30 leads to the significant yieldincrease, regardless of its predecessor. Varieties properties also have a significant impact. A significant interaction between predecessors and varieties characteristics, predecessors and fertilizers, varieties and fertilizers, the magnitude of the influence depends on growing conditions has been established. The use of fertilizer can increase yields of barley by 0.89–1.06 t/ha, and the use of fertilizers Nutrivan Plus brewer’s barley results in slightly lower yield (0.58–0.61 t/ha). Proper selection of varieties even further can bring 0.26–0.37 t/ha.


The problem of biochemical composition of vegetable marrow variety of Chaklan and hybrids of Mostra F1 and Sunroom F1 is considered, sowing of which was conducted in the first ten-day period of May after according to the chart of placing plants 70х70 cm. The content of dry matter, sugar, vitamin C and nitrates is analysed in the fruit of vegetable marrow. The analysis of the productivity of variety and hybrids of vegetable marrow in the conditions of south part of western Forest-Steppe of Ukraine is also given. It has been established that the hybrid of vegetable marrow Sunroom F1 was the most productive (87,65 t/ha) as a result of researches.

One of the most common soil contaminants are heavy metals. They enter in the soil as a result of anthropogenic factors, one of which is human activity. On agricultural lands in private ownership over 60 % of crop production is grown, so the analysis of heavy metals in these areas is very important. This work presents the results of researches of the heavy metals content in the arable soil layer which was selected from the private farms of the village Volitsa, Zhytomir region.


The results of researches on the study of the productivity of pigs of large white breed depending on homo- and heterogeneous combination of boars and sows of different growth intensity in the period of their breeding. It has been established that the intensive breeding positively influences on their reproductive abilities, and also on growth and saving litter in the suckling period. Difference between I and IV experimental groups was 37,3 a pigling. It is recommended to use boars and sows of the intensive breeding.

Svintitskaya K. V. Sanitation of vivarium air with a help of ultraviolet bactericidal irradiator of closed type «Fiolet-T04» for sanitization in the poultry’s accommodation in bird’s presence has been shown. Optimal operating conditions of this irradiator and its use for the sanitization of the poultry’s accommodation have been determined. It is The substantial disinfectant effect of this irradiator on the general germ pollution in the poultry-houses (quantity of the microorganisms decreased by 28 %) and absence of the bad influence on the poultry have been also determined. Poultry safety was V. Grounding of veterinary prevention and permanent prevention on rabbit farms // News of Poltava State Agrarian Academy. – 2012. – № 3. – P. 179–181.

The possibility of using ultraviolet bactericidal irradiator of closed type «Fiolet-T04» for sanitization in the poultry’s accommodation in bird’s presence has been shown. Optimal operating conditions of this irradiator and its use for the sanitization of the poultry’s accommodation have been determined. It is The substantial disinfectant effect of this irradiator on the general germ pollution in the poultry-houses (quantity of the microorganisms decreased by 28 %) and absence of the bad influence on the poultry have been also determined. Poultry safety was V. Grounding of veterinary prevention and permanent prevention on rabbit farms // News of Poltava State Agrarian Academy. – 2012. – № 3. – P. 182–185.

Based on the literature review and personal research on methods for assessing the impact of confounding factors on the rabbits health the plan of general veterinary prevention (GVP) of rabbit farms for developing specific veterinary technology of rabbit breeding products has been offered. The plan includes significant new demands as progressive technology, welfare of rabbits maintenance systems, balanced nutrition with valuable feed, grounds of species selection and breeding work with herd. Based on the proposed plan GVP started correction of breeding technology, maintenance and breeding rabbits in Ukraine in «Ecokrol» Volochynsky district, Khmelnytsky region.


The essence and the structure of the economic management mechanism of agricultural enterprise is considered. The conclusion has been made on the basis of generalizing different approaches concerning term «economic mechanism» and its specifics – economic methods of management which function basing on giving and refusing material (financial) reward. At the same time they leave freedom of making choice of behavior variants for the management object and just create conditions stimulating to achieve the set goals. The necessity of creating economic management mechanism in competitive environment is stressed.


The results of the study concerning the conditions and experiences of the formation and organization of the spreading system of agricultural knowledge and information in the Republican Kazakhstan have been given. The structure of consulting support of the agriculture producers in accordance with information and advice, analytical marketing, information technologies and exhibition and fair activities has been considered. The conditions of the development of spreading system of agricultural knowledge and information in the Republic of Kazakhstan with the possible adaptation to the conditions of Ukraine have been generalized.


The results of the study concerning the conditions and experiences of the formation and organization of the spreading system of agricultural knowledge and information in the Republican Kazakhstan have been given. The structure of consulting support of the agriculture producers in accordance with information and advice, analytical marketing, information technologies and exhibition and fair activities has been considered. The conditions of the development of spreading system of agricultural knowledge and information in the Republic of Kazakhstan with the possible adaptation to the conditions of Ukraine have been generalized.

The components of the material and technical basis of the cottages in the Poltava region in the second half of the XIX century and at the beginning of the XX century have been analyzed from the point of view their impact on the competitiveness of the small commodity producers in the specific historical conditions, which had been formed on the territory of the Naddniprianska Ukraine after the abolition of serfdom in 1861.