
Chemical composition in ontogeny of the maize plants has been studied. Decisive periods of nutritive absorption periods by maize agrophytocenosis of the soil have been found out. Different kinds of diagnostics (soil, visual, chemical) have been examined. Perspectives of these diagnostics employment for determination of optimum doses of fertilizers have been presented.


The estimation of root-crops capacity of the investigating hybrid combinations of Raphanus sativus L. – species has been fulfilled according to the indices of adaptive ability (common, specific), stability, plasticity, selective value of a gene type. Long-term geterotic combinations (F1 (Ravanello rosso × Troyandova); F1 (Kseniya × Lebidka); F1 (Lebdika × Troyandova) and F1 (Troyandova × Lebidka), which are characterized by the stably high revealing of above-mentioned indications of ecological changeability have been picked out.


The influence of herbicide Lintur, applied separately and together with the regulator of growth Emistim C on the net productivity of photosynthesis and the intensity of spring wheat respiration have been found out.


The article presents the results of the research concerning the influence of different application rates of herbicide Calibre 75 and methods of application of plant growth regulator Biolan on the anatomy of photosynthetic of winter barley. It has been found out that under the application of the minimum rate of herbicide Calibre 75 in combination with the application of Biolan the largest surface of epidermal cells of winter barley formed and the amount of stomata increased.

Shvyd S.F., Shvyd L.M., Natalechka V.O., Tkachenko S.K. Dynamics of remaining concentrations of pesticides in maize agrophytocoenosis of the soil have been found out. Determinations of central part of Forest-steppe of Ukraine. // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 33-34.

The research carried out by Poltava institute of agrarian and industrial production named after V.I.Vavilov shows that in the conditions of central part of Forest-steppe of Ukraine on typical heavy loamy, black soils with a little humus content the terms from the10th to the30th of September, and possible – by the 5th of October are optimal for winter wheat sowing. According to the facts mathematical statistics the difference in grain productivity of the crop sowing at the beginning and at the end of optimum term is not substantial.

Kiryyn V. M. Estimation of the source material of winter soft wheat according to the signs of grain quality // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 35-40.

The quality of grain varieties and advanced lines of wheat from 13 countries in Europe and North America in southern forest-steppe of Ukraine have been evaluated independently. Results of two-year studying of collection samples of winter soft wheat have been presented, the sources of economic-valuable signs deserving further use in selection have been stressed out. Grades in which efficiency is combined with the high protein content in grain have been defined. Samples by valuable signs – indicators of sedimentation, glassiness, grain testweight, number of falling, protein and gluten content which application in selection will allow to enrich assortment of high-quality wheat have been found out.


When cultivating Silybum on small areas where manual labour predominates it is necessary to provide an easy access for every plant, spaces between rows are to be 1 m, per 1 m² – 4-6 plants. The period of blossoming begins in July and continues to the end of vegetation. Accordingly the ripening of seeds lasted for a long time on shoots of various ranges. Picking of 30 percent of seeds lasted for one-two weeks, 90 percent – 24-40 days. The highest increase of yield was observed during the 12-16-th days after the start of harvesting. The average seed weight of 1,000 seeds fluctuated from 26.5 to 27.3 g depending on the year of observation.


The results of four year old researches are resulted from determination of optimum terms of sowing winter wheat hl. In particular in 2004-2005 vegetation period both early and late terms of sowing resulted in diminishing of the productivity. The early and late terms of sowing appeared in 2005-2006 year are the best – 25.08 and 5.10, which appeared most effective in 2006-2007. Terms of autumn in 2007 were the most favourable to the start of winter wheat, the best results was got 15.09. The drawn conclusion about the necessity of determination of optimal term of sowing winter wheat for the terms of concrete year.

Gangur V.V., Sidorenko A.V. Bondar P.I. The principle of selection of grade or hybrid appropriation for a specific region.

The principle of selection of a certain crop for specific region of cultivation has been defined, it is significantly improves quantitative and qualitative indices of yield. The authors found out that it is necessary to locate a seed originator to the south or east from the particular place of cultivation to maximize yields. This approach is used to improve the content of oil and reduce the protein content in brewery barleys. For obtaining grain with a high protein content it is necessary to use the other way that is the origin of the grade or hybrid should be to the north or west of cultivation region.


The water mineralization of the middle and small rivers in the mining regions of Dnipropetrovsk province riches to 3–5 g/l. Reclaimed lands irrigation conditions are determined to provide low risk of soil salinization.


Morphologic and biological features of plant seeds grown without irrigation, application of fertilizers, at late term of planting in the conditions of northern Steppe of Ukraine have been studied. Results of yield and quality of seeds (2007 and 2009) depending on the size and a state of bulbs (large, average, small, gminated) have been given. A high adaptability and an ability of given variety to form high-grade seeds within 60 - 110 kg from 1 hectare in stressful conditions of cultivation have been proved.


In the northern Ukrainian forest-steppe on dark grey podzolic coarse-silty sandy loam soil N60 of commercial nitrogen under presowing cultivation at the conventional row seeding method is economically and energy-wise substantiated fertilizer dose under Sudan sorghum. The efficiency of organ-mineral bioactive “ekoobiom” fertilizer is due to the moistening conditions.


The analysis of fodder additives of new generation which are applied in feeding of animals and birds at the development present stage of mix fodder industry is carried out. It is established that combined fodder was the most common, its structure includes some biologically-active substances. In alternative to the antibiotics, which use recently it is forbidden also their release it is considerably reduced, in system of feeding of pigs at present it is used four groups of preparations: fodder enzymes, probiotics, prebiotics and fodder acidifiers. The greatest quantity of modern fodder additives is applied in feeding of birds.


The results of the experiments as for effectiveness of usage of Silibum marianum L. as phytobiotic supplement for sows in farrow have been presented. Receiving results confirm effective usage of this official plant as a valuable natural fodder supplement that positively influence multi-fruitfulness indices. Piglets after birth whose sows got Silibum marianum L. as phytobiotic supplement in the period of farrow accustomed to indepen-
beginning of XX century. Poltava society of agriculture was one of initiators and organizers of revival of poultry farming industry, took part in organization of distribution and improvement of low-yield poultry. The society pays a special attention at organization of exhibitions that greatly influenced improvement of poultry farming in Poltava province. Literary data concerning farming peculiarities of local (Poltava) hens being bred for hundred years in Ukraine are analysed.


Results of the analysis of references and own researches concerning urolithiasis distribution at dogs and cats have been presented. It has been found out that under pathologies essential changes in morphological and biochemical properties of blood occurred. Activity of transaminases of blood serum tends to increase. Hyperasotemia is observed at the expense of increase urea and creatinine content. At urolithiasis dogs have insignificant, but an authentic increase of concentration of serum cholesterol and β-lipoproteinn according to 26,1 and 59,3% respectively. At cat urolithiasis concentration of cholesterol also increases by 39,8% (р<0,05) while concentration of β-lipoprotein does not change. A pathognomonic sign of a pathology at ultrasonography diagnostics echoshadow is observed at dogs and cats.


The conducted laboratory diagnostics of pig chlamidiosis shows a number of features of the results by different research methods. So the RCC is low-informed; identification of the pathogens in smears-imprints and by the PCR is not positive in all cases of research of different organ areas owing to location of chlamydiae as separate groups. Under a biological test small bodies of chlamydiae are registered in animals on the 8th-11th day after a primary infection in smears-imprints, and on the 25th day after an infection there are specific changes in the internal organs.


The article contains data of biochemical parameters of blood serum of horses under babesiosis. The results made it possible to analyze the dynamics of biochemical indices of blood serum of infected animals before and after treatment, compared with the control group. Found increased activity of an information and diagnostic enzymes AsAT (298±7,7 u/L) and total bilirubin (65±4,6 mkmol / L), indicating that the development of hepatodystrophy have sick animals. Increased activity in blood AsAT and AIAAT after treatment, while reducing the level of the protein, points to the progression of destructive changes in the liver, and therefore - in the toxic effect of chemotherapy.


Hepatitis, hepatocellular jaundice, hyperplasia of the lymphatic knots are observed when the carnivorous have the acute course of viral hepatitis. Hepatitis, hepatocellular jaundice, reactive necroses of the stomach mucous membrane are characteristic in subacute course of the disease. Devastation of the lymphatic small knots is observed in the limphatic knots. Bilirubin accumulation in the internal organs, in the mucous and serous membranes is registered at the icteric form of disease. Bilirubin accumulation is observed only in a liver when the form of disease is not icteric.


Efficiency of use of a new sorbent micotoxins in pig breeding. In scientifically economic experience influence of a preparation for micotoxin neutralisation Bio Tox on productivity and economic efficiency of diets for feeding of young pigs is studied. The use of preparation Bio Tox has essentially affected increase in the maintenance of glucose by 1,7 mmol/l and the protein - by 11,7 g/l in experimental group (on the termination of researches in comparison with their beginning) whereas indicators in control group practically remained invariable. The use of sorbent of micotoxins Bio Tox in scientifically economic experience has given the chance to receive in experimental group insignificant increase (by 12 grammes) daily average and essential reduction (on 0,33 forage units or 8,4%) expenses of forages on gain unit in comparison with the control.


The results of bacteriological investigations of swine organs with escherichiosis have been presented. Escherichia coli localization in swine organism has been studied. There have been defined that the Escherichia coli has been isolated from different organs. It has been found out that Escherichia coli was located in large intestines, small intestines and gall predominantly. It has been pointed out that Escherichia coli was isolated from liver, skeleton muscle, spleen, lymphonodulus, lungs, kidney and heart blood least of all.


In this article the problem of an opportunity of use of selenium-organical preparation seledant in veterinary medicine has been considered. Subchronic toxicity seledant for calves and pigs has been determined. It has been found out that use of seledant for calves and pigs promoted increase in a gain of alive weight of animals and did not have a negative impact on hematological, morphological and biochemical parameters of blood. Use of the preparation reduces the maintenance cetodienes and the malon dialdehyde, does not influence intensity of processes of parameters antiperioxidant oxidations of the lipides. The studied preparation does not influence the clinical status, behavior and appetite of animals.


The chlamydiosis of suis takes one of the main places in common pathology and depends on catery of farms, conditions of keeping and common veterinarian sanitary status of farm. The clinical and patomorphological changes are the most characteristic with high level of mortality during course of disease, when the disease caused by two or more pathogens. In the same facilities illness could have both sharp and latent current revealed only by laboratory researches. At typical infectious process clinical and pathomorphological changes have been expressed especially precisely, being accompanied by mass abortions among animals.


The data concerning microbiological research of contents of small and large intestine of horses of Bashkir breed spontaneously infested by intestinal strongylatoes have been given in the article. Considerable rejections caused by helminthes in microbiocenosis have been marked. On a background of the deficit of
bifidobacterium flora a normal correlation of essential microorganisms has been broken: the amount of lactic acid bacillus, colibacillus is reduced, the quantity of enterococcus, clostridium is increased, appearance of pathogenic properties is characteristic.


The results of the analysis of storage of liquid albuminous feather concentrate from the moment of its making and to its intensive contamination with microflora have been presented. Received neutralised hydrolyzate from the feather-down material is sterile according to our technology. Such product is a albuminous feather concentrate in a liquid state. Besides it is a fodder for animals and a nutrient medium for microorganisms. Animals may consume it to a certain quantity of reproduction of microorganisms in it.


The article deals with the problem of diagnostics of a glomerulonephritis (GN) at dogs according to results of clinical, hematological and biochemical researches. The diagnostic importance of indicators of a metabolism of a copulative tissue in diagnostics GN at dogs – glycoproteins, sialic acids and chondroitinsulfates has been established. It is found out that GN at dogs is characterised by an oliguria, a proteinuria, a microhematicturia, a leukocyturia and a cylindruria, a neutrophilia and a lymphocytosis, hematocrit augmentation. According to biochemical research of blood serum at patients GN of dogs the increase of content of glycoproteins, sialic acids, chondroitinsulfates, cholesterol, β-lipoproteins, urea and a creatinine, and also a hypoalbuminemia and γ-globulins have been found out.


Data about complex diagnostics of a chlamydyosis of ruminants on farms of Ukraine have been cited. Disease is clinically shown on farms of Sumy area basically in the intestinally-pulmonary form. Prolonged diarrhea was accompanied by tenesmus, a great amount of mucus with blood was observed. Pathologic - morphological changes were revealed in the form of catarrhal endometritis, cervicitis and vaginitis with plural haemorrhages on a mucus membrane.


The esophagus tonsil of 180-day-old chickens is morphofunctionally matured and is represented by diffuse lymphoid tissue, prenodules, primary and secondary lymphoid nodules. The lymphoid tissue area in esophagus tonsil decreases with the increasing of age and the content of the diffuse lymphoid tissue increases. The size of lymphoid nodules and their number decreases with the increasing of the chickens’ age.


Results of researches concerning influence of temperature of air and relative humidity on the basic indicators of resistance of pigs and dynamics of their growth are presented. It is found out that not optimised and changeable microclimate of the maintenance of pigs worsens morphobiochemical blood indicators, destroys bacterical and complementary activity therefore productivity of pigs decreases by 5,0-6,5 %.


Theoretical generalisation of approaches to economy of knowledge as an innovative economic system has been carried out. Problems of search of a new paradigm of social and economic development of a national economy, complex judgement of intrinsic characteristics and public transformations, and also understanding of the reasons and factors which influence formation of economy of knowledge have been considered. The key role of the human capital that is proved at defined institutional conditions turns to the major factor of development of the economic system based on knowledge.


Imperfect interpretation of experience of the European cooperative banks in the domestic economic literature has been emphasized. The place and the role of cooperative banks in bank system of modern Austria have been determined. Two in parallel existing cooperative bank groups - rajffajzen - and national banks have been separately characterised. The stable tendency concerning merge of ineffective Austrian cooperative banks with financially stable and successful ones has been stressed. Features and advantages of such banks in the conditions of world financial and economic crisis have been defined. The conclusion has been drawn on expediency of distribution of cooperative banks in Ukraine in particular in its agrarian sector for adjustment of reliable system of financing of small business.


The importance of financial policy for farm enterprises as forms of small business has been considered. Indices of their economic state in correlation with other forms economic management have been studied. The ways of development of financing resources have been analysed. It is supposed that financial system of farm enterprises might be supported at a macrolevel.


Theoretical and methodological problems of financial strategy formation of an enterprise in the modern conditions of development of economy are examined. Its place and meaningfulness in general strategy of an enterprise are grounded taking into account the features of industry where it is involved. The stages of financial strategy formation have been generalised. It has been proved that financial strategy was the sending vector of enterprise management and its industrial and economic activity in a modern competitive market environment.


The importance of bookkeeping and financial reporting in making managerial decisions has been considered in particular at introduction P(С)BU 30 «Biological assets» into the practice of registration work in agrarian enterprises. The features of the organizational providing of estimation of biological assets and agricultural product have been studied. The necessity of the use of estimation of assets in agrarian enterprises on a fair value has been grounded.


Efficiency of the experiment planning optimum by temporary
expenses has been shown during studying the servicing process of the technical systems complex and state of operator work when servicing such complex. It has been shown that for optimization of the fractional factorial experiment plan it was reasonable to use the method of casual searching but for rotatable central compositions planning — the method of the branches and borders. In the course of the decision of problems of optimization and management of technical systems there is a problem of construction of their mathematical models besides those requiring minimum costs.


Application of the basic soil cultivation in the conditions of Poltava region has been proved. Advantages of work of active paws of a cultivator which carry out horizontal fluctuations with set frequency and amplitude over the passive ones have been noted. Influence of the active working body on a layer of soil at turbo speeds results in its more intensive crumbling, paring and crushing. Action of the active working body on roots of weeds both in static and in dynamic variants has been investigated. Geometrical parameters of an active paw of a cultivator have been proved.


The use of flat cutter and chisel plows with active working units in agricultural production has been proved. The use of active working units gives possibility to raise efficiency of tractors thanks to transfer a part of energy of the soil-cultivating machine from the tractor engine not through wheels but through shaft of selection of a tractor capacity. It will also promote to increase of productivity of the unit owing to increase its speed at progress and width of capture. An active working unit accomplishing angular vibrations in a horizontal plane as compared to passive one is guided and allows to change a mode of operation in dependence of physical and mechanic properties of the cultivated soil.


It has been found out that cutworms belonged to dangerous soil pets that harm winter wheat sowing. The results of study of influence of the permanent wheat sowing on a compactness of population of winter cutworms have been given. The results of our research testify that in the permanent winter wheat sowing there is an accumulation of pest quantity, as a result their amount in sowing exceeds the economic level of harmfulness. Comparing received compactness indices on the permanent sowing with indices in a crop rotation it is evident that alternation of crops is instrumental in the decline of compactness of cutworms in this sowing.


A search of ecologically clean and energy-saving systems and technologies are related to the new stage in world agrarian science. EM-technology belongs to main modern directions not only in ecological agriculture but also in all of the economic and nature protection systems. This research is directed on the exposure of influence of EM-preparations on corn productivity and EM-technology comparison with traditional technologies of this plant cultivation. It has been found out that intensification of growing methods greatly influenced growth, development and productivity of corn. The author considers that it is reasonable to carry out additional tests with use of EM-preparations for complete ground of their influence on the productivity of agricultural plants.


It has been found out that the least disease distribution of sunflower crops was observed in crop rotation of seven fields but according to total percentage of damaged crops in crop rotations of three, four and five fields it could be possible their saturation by sunflower to 20-33,3 %. Saturation of scleroses of white clay agent in soil was observed in all variants of the experiment and there was the greatest number in crop rotation where 50% of sowing area was devoted to sun flower. There is an obvious regularity: a number of crops damaged by white clay (Whetzelinia selerotiorum) is closely connected with a number of scleroses of the agent in arable soil layer.

**Shulika A.A.** Indicator approach to realization of land resources monitoring // News of Poltava State Agrarian Academy. – 2010. – № 2. – P. 186-188.

Main targets and methodology of land resources monitoring system have been analysed. Necessity of assessment of land resources as a component of monitoring has been established. Indicator approach as a method for characteristic, assessment of land resources and improvement of monitoring system has been presented. Indicator conception has been analyzed and generalized. The main targets, functions and preferences of indicator system use have been studied. The conception of indicators structuring on basis of implementation of European experience to Ukrainian conditions has been expounded.


Soil is an interlink between an atmosphere, a hydrosphere, a lithosphere and living organisms. It plays an important role in the processes of exchange of matters and energy between biosphere components. Soil is focus of life, place of existence of many living organisms. The problems of oil contamination of ground cover are examined in the article. The problems of negative influence of oil on soil covering and environment are considered.


The results of the conducted researches purpose of which is to learn the biochemical blood indices of dogs suffered from unciniariosis monoinvasion, and to define pathogenetic influence of parasitosis on separate organs and organism in the whole have been given. Basic indices according to which calculations were made have been described. Methods of research and also results of the statistical processing of received data have been presented. It has been found out that parasitizing of uncinarias in the organism of dogs resulted the changes of biochemical blood indices of animals and drew a toxic hepatitis and cytolysis of liver cells.


As a result of researches it become known that in the region of a longitudinal trench of a tongue there is a small amount of small vessels which branch from the dorsal branches of the right and left deep arteries of a tongue. Owing to a damage of tissues the healing process passes slowly and continuously. Quantity of leukocyte accumulates in a place of damage of tongue tissues (a longitudinal trench) which has an influence on filling of microvessels by blood that promotes development of interstitial...
inflammation.


The state and progress of meat processing subcomplex of Poltava area trends have been studied as one of strategically important industries of agroindustrial complex of the region. The analysis of dynamics of population of cattle and bird, production of meat and indices of economic efficiency volume have been conducted. The basic problems of industry in modern terms and offered ways of output of stock-raising from the crisis state have been analysed that will give the possibility to provide effective development of industry and increase production of meat volumes on agricultural enterprises.


This scientific work describes the sense of the notion “investment” and shows its indissoluble connection with capital on the basis of the critical study of the foreign and home explorers' theories. Capital investments are considered as one of the forms of investments. The author proposes to add investment classification with additional signs that is enough to systematize its main kinds. It was shown that the main aim of investments is profit making. It's also important to provide development and increase of the market value of the enterprise that is expressed in capital growth.


Theoretical and methodological problems of forming of charges strategy in the modern terms of development of economy are considered. A place and role of strategic management of charges has been exposed in the general system of strategic management. It has been well-proved that system of management of charges was directed to providing of realization of strategic tasks of an enterprise in the conditions of dynamic and indefinite enterprise environment on the basis of the optimal use of existent potential of an enterprise.