AGRICULTURE. PLANT CULTIVATION

Liashenko S. V. Investigation of the formation of the harvest and the quality of fruit of grapes with different methods of pruning the vine // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 6–10.

The importance of the influence of the methods of pruning the vines of grape depending on the varietal features on the formation of the harvest and the quality of the grapes are substantiated. A technique for investigating the influence of the length of the vine pruning on the qualitative indices of grapes is offered. The methods that can be used to increase the yield of grape varieties that are zoned in Poltava region are analyzed. It is established that the coefficient of fruiting of the central buds mainly correlates with the actual yield, which makes it possible to use this connection to predict yields by grape varieties. The selected methods of pruning of grapes that would ensure a high constant yield and quality of fruits, as well as the economic efficiency of growing grapes, are substantiated and characterized.

Togachuns'ka O. V., Tymoshchuk T. M. Environmental technology expertise of growing winter wheat on agrochemical and hygienic indicators of podzolized dark gray soil // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 11–17.

We explicated results of the ecological examination of technologies for growing winter wheat in the Northern Forest-Steppe on the indicators of fertility and the effect on the migration of heavy metals in the genetic horizons of dark-gray podzolized soil. According to the results of environmental assessment, it is established that for the introduction of technologies in production, it is necessary to improve certain technological operations.

Liubych V. V. Influence of biotic and abiotic factors on the productivity of sorts and lines of spelta wheat // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 18–24.

The results of study of forming of the productivity of sorts and lines of spelta wheat are resulted in the article. It is set that the productivity and maintenance of albumen in grain of spelta wheat depend on the weather terms of vegetation period, height of plants, stability to lodging and defeat the exciters of mycotic illnesses. The highest stability to lodging is characterize the lines of LPP 1304, P 3, LPP 1221, the productivity of which changes from 6,74 to 9,64 t/he. The table of contents of albumen in grain of spelta wheat depends on the height of plants and index of development of illnesses. High maintenance of albumen is characterize grain of sorts Zoria of Ukraine, Schwabenkorn and lines of LPP 1221, P 3 TV 1100 – 16,8–22,5 %.

Yeremenko O. A. Sunflower productivity depending on mineral nutrition and presowing seed treatment in the conditions of insufficient moisture // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 25–30.

The effect of the plant growth regulator (PGR) on growth, development and formation of the sunflower crop with different norms of mineral fertilizer under conditions of insufficient moistening of the Southern Steppe of Ukraine was studied. It was established that presowing AKM treatment of sunflower seeds of Perseus hybrid increases leaf area by an average of 18.8 %; increases the resistance of sunflower plants to abiotic stresses and increases yield by an average of 27.7 %. Improving the conditions of sunflower nutrition when using the norms of mineral fertilizers recommended and calculated from the point of zero balance of nutrient elements, provides an increase in the main indicators of plant growth and development, and sunflower yield. It is established that the share of PGR influence reaches 11.2 %, and that of mineral fertilizers – 8.6 %, with the share of influence of hydrothermal conditions of the year – 51.5 %.

Garbar L. A., Gorbatiuk E. N. Influence of different conditions of sowing on the formation of productivity of sunflower crops // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 31–33.

The results of studies aimed at studying the influence of different seeding conditions on the formation of productivity of sunflower hybrids under study are presented. Studies were conducted during 2014–2016 in the conditions of the Steppe of Ukraine on chornozems of typical low-humus. As a result of the conducted researches it was established that in the conditions of the Steppe of Ukraine on chernozems of typical low-humus formation of high yields of sunflower at a level of 2.7 t/ha, hybrids PR64F50, PR64A15 are provided with the recommended sowing time (when the soil is heated at a depth of 10 cm to 10–12 °C) and the row spacing is 35 cm.

Ponomarenko S. V. Spatio-temporal dynamics of crop yields of corn in Poltava region // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 34–41.

In the article we create methodical approaches to determine the impact of the yield of maize on regional factors, agro-economic, agro-technical and agro-economic nature. It was found that maize yields in the agricultural enterprises of Poltava region by region for 1995–2016 years on average varied in the range of 35.15±3.77 t/ha (Kobeliaky dis-

trict) to 55.52±5.59 t/ha (Shyshaky district). The lowest level of variation of parameters yields of maize over the study period was typical for Orzhytsia district (28.64 % coefficient of variation), and the largest – for Chornuhy district (CV = 60.52 %). It is shown that the spatial variation of the component of the average level of maize yield statistically unreliable at present a large-scale level. The parameters of the linear model of the trend yield of corn are characterized by a spatial variation of its components. The analysis of the dynamics of the yield of corn in the agricultural enterprises of Poltava region in time indicates that there is a clear trend of increase in productivity during the study period, which can be described by linear regression. Regression coefficients are interpreted as over time the rate of growth of productivity and the potential yield in the initial period of the study.

AGRICULTURE. ANIMAL BREEDING

Deren' O. V., Dobrianska O. P., Koryliak N. S., Baturevych O. A. Influence of minerals of volcanic origin on the chemical composition of water // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 42–46.

The results of the influence of minerals of volcanic origin (analcime, bentonite and saponite) on the main chemical parameters of pond waters with a high content of calcium and sulfates are presented, and additionally contaminated with nitrates. The sorption properties of all minerals studied are determined, taking into account the decrease in the concentration of ammonium nitrogen. The use of saponite and bentonite provides a reduction in the concentration of phosphorus in water and an increase in alkalinity. Analcim and saponite are used effectively to increase the magnesium content and decrease the calcium content in water.

AGRICULTURE. ECOLOGY

Kharytonov M. M., Benselhoub A., Kryvakovska R. V. Local monitoring of airborn technogenic pollution in the area of metallurgical plants of «Arcelor Mittal» company // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 47–51.

The application of local monitoring based on automatic weather monitoring networks data, allows assessing pollution risks near metallurgical plants of «Arselor Mittal» company. Two zones of air pollution with nitrogen dioxide in the level of 1 MPC has been recorded near the blast furnaces and the steel complex in city Annaba. It shows that in general the values are not alarming. They are all and across all measurement sites below the WHO limit value of 30 mg/m^3 per year to 1.5 times. The concentration of the cloud increased concentration of nitrogen dioxide in close proximity to the neighbouring residential districts of Sidi-Amar and El-Hajjar is also a concern. According to the majority data obtained from stationary monitoring stations, the annual average concentration of SO_2 was significantly lower than the MPC. However, a twofold excess of MPC was found in the complex hot zone (sintering and melting of iron ore in the blast furnace). This is due to the fact that during the coking process of coal there is a strong release of sulfur originally contained in the coal lane. On the other hand, the zone blast furnace plays the role of purifying the melting of its undesirable elements in the steel. Mainly the sulfur is released during cooling. Monitoring data show the danger of the spread of organic pollutants beyond the factory area. Up to 30 % of the results of all the sites monitored, exceeded the WHO guideline value. The highest concentration of benzene and toluene recorded in the coking area in February – March. High concentration of toluene and benzene were observed near post installed in suburb district Sidi Amar.

The situation on air pollution with nitrogen and sulfur dioxide in city Kryvyi Rih is sufficient contrast. Many point sources individual emissions overlay and form the total torch, which cover all agglomeration.

Gorb O. A., Chaika T. A., Yasnolob I. A. Development of ecological settlements in the conditions of organic agriculture as a direction of using the potential of renewable energy sources in Ukraine // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 52–55.

The relevance of the development of organic agriculture was substantiated in the article. The general requirements and conditions for its maintenance are specified. The necessity of the development of organic farming in Ukraine is proved, which in turn will contribute to the creation and efficient functioning of ecological settlements. The essence of ecological settlements in general and their features in the present conditions are determined. The foreign experience of organization of ecological settlements is studied and possible directions of its adaptation to domestic conditions are formed. Preconditions and peculiarities of formation, development and effective functioning of ecological settlements in Ukraine are presented.

VETERINARY MEDICINE

Panasova T. G., Kulynych S. M., Zhernosik I. A., Malenko A. V. Obtaining and evaluation of the dogs sperm quality // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 56–58.

Dogs semen was received by masturbation method in the presence and without a straw bitch, also evaluation of the quality of ejaculate was made by organoleptic, microscopic and microbiological methods. It was found that it is better to get dogs semen without straw bitch presence, some dogs are not suitable for artificial insemination due to inhibition of sexual reflexes in them. Dogs semen is not suitable for insemination of the bitches if a concentration of blood in it 0.140–0.147 billion/ml with an activity of 2–3 points and with the presence of microorganisms of the genus Staphylococcus in it.

Zamaziy A. A., Kambur M. D., Kolechko A. V. Dynamics of ammonia consist in the rumen of calves // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 59–62.

The article presents the results of studies that prove that the dynamics of ammonia content in the rumen in calves over the autumn-winter and winter-spring period has changed. In the control subgroups of the first group born in the autumn-winter and winter-spring period, the contents of ammonia in the rumen were significantly different at the beginning of the studies. During the appearance of the ruminant process in the calves of the autumn-winter period of birth, the contents of ammonia in the rumen were 8.80±0.80 mg%, and in calves of the winter-spring period of birth, 3.41 % more. On average, the calves of the experimental subgroup of the first group of the autumn-winter period, the content of ammonia during the study period was 1.08, 1.07 and 1.13 less than the calves of the control subgroup.

Yevstafieva V. O., Melnychuk V. V., Yuskiv I. D. Hematological parameters of pigs which were infested by trichurises in the process of the use of medicinal products // News of Poltava State Agrarian Academy. – 2017. – № 3. – P.63–66.

The paper presents the results of the determination of the effectiveness of medicinal products («Brovermectin 2 % water-soluble», «Univerm») in different ways and the multiplicity of their application, taking into account the dynamics of hematological changes in invasive pigs by trichurosis. It was established that the most effective (100 %) antihelminthic agent was «Brovermectin 2 %» for two-time presentation to diseased animals. His pronounced antihelminthic action, which indicated the recovery of pigs, was characterized by changes in the hematological rates of diseased animals. Improvement of blood serum values (total protein content and β-globulins) towards their normalization was established at 14th day after the start of treatment.

Kyrychko B. P., Zvenyhorods'ka T. V., Hyrenko I. V., Parchenko V. V. Determination of the biological effects of «Trifuzol-H», «Trifuzole suspension» and «Trifuzole solution for injection» // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 67–69.

It is established that the use of «Trifuzol-H» in the blood serum of rats increases the activity of the alanine aminotransferase ($p<0.001$), increases the creatinine content ($p<0.05$), decreases the uric acid content ($p<0.05$) and the gamma-glutamyltranspeptidase activity ($p<0.05$). With the use of the drug «Trifuzole suspension», the activity of aspartate aminotransferase ($p<0.01$) and lactate dehydrogenase ($p<0.05$), uric acid content decreases ($p<0.01$), creatinine content increases ($p<0.05$). With the use of the drug «Trifuzole solution for injection», the activity of lactate dehydrogenase ($p<0.05$) and gamma-glutamyltranspeptidase ($p<0.05$), cholesterol ($p<0.05$), triglycerides ($p<0.05$) and the creatinine content increases ($p<0.05$).

Kraievsky A. Y., Lazorenko A. B., Travetsky M. M., Kraievsky S. A., Galichev M. M. Cow felling depending on the state of exchange of substances in the synchronization of estrus // News of Poltava State Agrarian Academy. – 2017. – № 1–2. – P. 70–73.

The article presents the results of studies on the fertilization of cows, depending on the state of metabolism before the synchronization of estrus. It was found that a decrease in the content of total protein, calcium, inorganic phosphorus and carotene in the serum, together with the development of compensated acidosis, significantly reduces the level of fertilization of cows.

Fotina T. I., Zazharska N. M., Misiuga M. A., Neverkovets N. Yu., Popadiuk M. M. Application of «Lithosorbs» to goats for treatment of udder // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 74–78.

The aim of the study was to investigate the effect of «Lithosorb» on the sanitary quality of goat's milk. For the experiment, four groups of dairy goats were formed by 5 goats in each. During the week, 2 times a day after milking, «Lithosorb» (zeolite activated by silver nanoparticles) with different ointment bases (for the first group of goats were pork fat, for the second one – peach oil, the third – vaseline oil, the fourth – vaseline). The external use of «Lithosorb» with different ointment bases caused a toxic effect on the mammary gland of goats, which led to increase of bacterial contamination and the somatic cells count in milk. The

somatic cells count in the goat's milk of the first group slightly increased, and in the second, third and fourth groups increased by 1.7, 2.5 and 5.6 times respectively. Bacterial contamination of goat milk increased in the first group by almost 4.8 times, in the third group – by 2.8 times, in the fourth group – by 7 times, and only in the second group it decreased by 2 times.

Sukhonos V. P., Salivon V. A. Preoperative correction of the level of total protein in dogs blood portal hypertension of ascites complications by infusion in 10 % human albumin // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 79–82.

The purpose of the research is to develop the tactics of preoperative correction of the violation of the level of total protein in dogs of patients with portal hypertension complicated by ascites by infusion of 10 % human albumin. Our studies have shown that the offered method for correcting the level of total protein in the blood of dogs in most cases positively affects the general condition of diseased animals, increases its level and can contribute to a decrease in the percentage of postoperative complications and fatal cases.

Ksionz I. M., Korniienko M. V. Species differentiation of animal chlamidiosis agents by means of polimerase chain reaction // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 83–86.

Ten PCR test systems have been developed for the species differentiation of the *Chlamydia* genus bacteria, which are etiological factors of mammalian and bird chlamydioses, namely *C. abortus*, *C. avium*, *C. caviae*, *C. galinaceae*, *C. muridarum*, *C. felis*, *C. pecorum*, *C. pneumoniae*, *C. psittaci and C. suis.* The basis includes ten constructed and synthesized pairs of oligonucleotide primers flanking different sized DNA fragments of the main outer membrane protein gene (MOMP) of chlamydias. Specificity of the developed PCR test systems is confirmed by the results obtained using the site «Bio.bsu.by» and the «Blast» computer software and by the results of the PCR method studies on 17 samples of biological materials, 11 of which being samples of the *Chlamydia* genus bacteria's control DNA, and 6 ones being DNA samples of leptospiras and babeses.

Sharandak P. V., Levchenko V. I. Diagnostics of ewes' microelementoses // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 87–90.

It was set that reason of appearance of ewes' microelementoses is lack of their compound in dry matter of food. Deficiency of microelements appeared in 14.8 % of ewes. The most spread pathology between sheep of five enterprises in Lugans'k region is deficiency of zinc in 35.9 %, copper – 26.6 % and polymicroelementoses – 32.8 %. Among last the most spread (15.6 %) is deficiency of copper and zinc. We estimated positive correlation connection of the middle level between manganese and lead, negative correlation connection between cadmium and manganese of the middle level.

Peredera S. B., Peredera Zh. A., Shcherbakova N. S., Derzhgovs'ka E. A. Influence of a disinfectant based on polyhexamethylene guanidine hydrochloride on sanitary-indicatory microorganisms and on the white mice // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 91–93.

The article presents the data relatively the analysis of the action of a disinfectant based on polyhexamethylene guanidine hydrochloride (PHMG-HC) on sanitary-indicatory microorganisms and on the white mice. We determined that a phenol coefficient of «PenaSept» in relation to *S. aureus, E. coli* is 7.4 and 5.9. Besides «PenaSept» shows a pronounced disinfectant activity. With a daily aerosol treatment for 14 days, the disinfectant is biosafety for the body of laboratory mice, which is proved on the basis of clinical and pathoanatomical studies.

Kravchenko S. A., Kanivets N. S., Lokes-Krupka T. P. Way of sensing of the rumen in cattle // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 94–95.

The method considered in this work makes it possible to probe pre-stomachs in cattle with probes of different diameters in order to perform diagnostic-therapeutic measures, facilitate sampling of a large cicatrix, excretion of gases during tympany, and administration of drugs. The convenient probe introducing is achieved using jaw spreader of own design. Through the above-mentioned jaw spreader probe can be administered to cattle of different age groups. The obtained results are tested in production conditions.

Shatokhin P. P., Suprunenko K. V., Karysheva L. P., Derenchuk Yu. I., Krylevets Yu. V. Correction of vitamin A and zinc in blood syruises of horses at the last trimester for alimentary insufficiency // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 96–100.

The article presents the results of research on the distribution of A-hypovitaminosis in the mares of the last trimester of pregnancy. For this purpose, the ration of feeding mares was analyzed for the nutrient content. We have established an imbalance with digestible protein, crude fiber, calcium, phosphorus and carotene. According to the results of the clinical examination of the mares, it was founding that of the 17 examined mare 10 goals had symptoms of alimentary hypovitaminosis. The introduction in the last trimester of pregnancy of mares, with signs of hypovitaminosis, orally, of retinol acetate in a dose of 700,000 IU, five times, at intervals of seven days, increases the content of zinc in serum on average by 155 %, and vitamin A in 4.38 times.

Dmytrenko N. I. Methods of diagnostics and treatment of cystitis in cats // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 101–104.

The conducted researches have revealed that various pathological changes in the organ: change in size, thickness and integrity of the wall, heterogeneity of urine may be detected by ultrasound. Diffuse or total thickening of the bladder wall was observed in sick animals with cystitis. It was visualized in the form of a sharp epocial contour, features of detachment and separate unevenly thickened echo-negative sites and edema of the mucous membrane. Changes in the properties of urine for cystitis in cats were characterized by a decrease in relative density and an increase in pH. The number of epithelial cells of the bladder and urinary tract and white blood cells increased in urine sedimentation.

Omelchenko A. A. Bioligical features of sedentary and migratory roedeer of Sumy region // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 105–107.

In Sumy region, the divergence of the Capreolus capreolus population is growing at 2 subpopulations: sedentary and migratory. This is due to the geographical dissociation of them during the period of gossip and the difference between the natural and climatic and biogeochemical conditions of their places of residence during the snowy period of the year. The sedentary and migratory roe deer are statistically significant ($p \leq 0.05$) differing in terms of size, slaughter weight, carcass weight, mortality rate, development of internal organs and hematological parameters. Migratory roe deer are more sedentary. In the unit volume of blood migratory roe more hemoglobin and erythrocytes are contained than in sedentary ones, however, the hemoglobin saturation of erythrocytes is higher in sedentary animals.

Avramenko N. A. Meat of wild animals: features and composition // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 108–109.

In the study of the chemical composition of meat of some species of wild animals the highest percentage of moisture and proteins were detected in the moose meat (75.6 and 21.2 %, respectively), but the fat index in this species was the smallest (1.9 %). Roe deer meat contains half as much fat as beef and four times less than pork with less cholesterol (about 2 times). The content of proteins in male roe deer meat is 2.8 % higher than in beef and 5.2 % – than in pork. The nutritional and biological value of meat, along with other compounds, is determined by mineral substances, which influence the processes of metabolism, growth and development of the organism. Studies on the physical-chemical properties of bear meat showed: a positive reaction to peroxidase, the extract from the blue-green color turned in brown within 2 minutes, the amino-ammonium test was 0.8–1.0 ml; negative reaction with copper sulfate, the broth remained transparent with a lot of flakes, a negative shape test, the filtrate remained transparent. The pH of the meat samples corresponded to the meat of healthy animals.

Goncharov S. L. Age dynamics of predatory fish infection with nematodes *Eustrongylides excisus* in Dnipro-Bug estuary and delta of Dnipro // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 110–115.

The dependence of infection with nematodes Eustrongylides excisus, Jägerskiöld, 1909 on the age of the predatory fish, such as pike-perch – Sander lucioperca (Linnaeus, 1758), European Perch – Perca fluvial (Linnaeus, 1758) and pike – Esox lucius (Linnaeus, 1758) that were caught in the waters of Dnipro-Bug estuary on the delta of Dnipro was studied. It was shown that with increasing age of the fish prevalence of infection and abundance were also rising. The most affected were fish from older age groups – from 7+–8+ to 9+.

Mykhailiutenko S. N. The spreading of eostrogillidosis of Gobiidae family in Kremenchuk reservoir // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 116–117.

Based on the results of the studies, a significant spread of eustrongylidosis of Gobiidae family bulls was established in the conditions of the Kremenchuk reservoir. The larvae of the nematode had a filiform shape, a red color (sometimes areas of light pink color turned into a cherry blossom), a length of 35–53 mm, a width of 0.4–0.6 mm. Parasites were located mainly in the body cavity on the surface of the liver and intestine. The larvae were unencapsulated. It was found out that the EI was 37,25 % at an invasiveness rate of 1–4 ex./fish.

Vikulina G. V., Borovkov S. B. Diagnostic value of some biochemical indexes of blood and urine (overview information) // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 118–121.

In the article we gave literary data about informativity and practical application of biochemical indexes of blood and urine that are calculated using often applied diagnostic criteria of biochemical analysis. As biochemical indexes we examined correlation of indexes of protein metabolism and system of residual nitrogen, enzymes, indexes of exchange of glucose and glycolytic processes, osmolarity ratio. The listed criteria are studied as specific tests in diagnostics of internal diseases, in particular in humane medicine, and can be useful in work of specialists of veterinary profile.

TECHNICAL SCIENCES

Arendarenko V. M., Lavrenko V. V. Features of the calculation of the spring element of the regulator of the angle of attack of the cultivator paw // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 122–125.

On the basis of theoretical studies, an improvement in the construction of the attachment of the working body to cultivator paws is offered. The procedure for calculating the spring element of the regulating and safety device for cultivator paws is presented. The introduction and use of the offered device will increase the uniformity of the stroke of the working organ, and consequently improve the quality of soil cultivation.

THE YOUNG SCIENTIST'S PAGE

Grygoryshyn E. V. Germination and germination energy of pale purple coneflower (*Echinacea pallida* (Nutt.) Nutt.) depending on the influence of stimulants // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 126–132.

In article influence of environmentally safe stimulants on the germination and germination energy of pale purple coneflower were investigated. It has been established that the age of the seeds, how to handle it, additional processing gibberellin define 95 % variation in germination and 92 % of the variation in the germination energy of pale purple coneflower seeds. We obtained data indicating that germination energy and germination of new seeds in 4–5 times higher than the old ones. Gibberellin processing significantly stimulates these indicators. We confirmed that among the ways most efficient seed pretreatment effects on germination and germination of seeds carries out UHF electromagnetic field. The influence of other treatments is evident in comparison with control, but less than in the case of the UHF. Ultra-high-frequency electromagnetic field in the investigated range of timing of exposure demonstrates a positive dose-dependent efficacy.

Molchanova A. V. Ecological aspects of solid domestic wastes influence on agricultural landscapes // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 133–135.

Number of consumer goods and increases of solid domestic wastes are one of the biggest environmental problems. The rate of increase in the volume of solid domestic wastes in excess of global trends Ukraine exceed in 2–3 times and it is 10 % or more. In Ukraine there are at least 160 thousand ha of lands occupied by landfills, it is one of the highest accumulation of wastes in the world, equipment inspection and improvement areas occupied by landfills missing. Warehousing and storage of waste is burning issue, so bulk waste is recycled in Ukraine, and the consequences are environmental pollution (soil, water, air), worsening health.

Rodionova Ye. A. Control of microbiological safety (*Campylobacter spp*.) of poultry carcasses during their processing // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 136–139.

The article presents the results of isolation bacteria the genus Campylobacter while primary poultry processing on poultry processing enterprise. We determined that selected cultures of micro-organisms in cultural-morphological and biochemical properties had typical biological features for *Campylobacter jejuni*. The level of isolation of *C. jejuni* from the swab carcasses was 4.49 %, while as in the study of intact caecum – 7.46 % of all studied samples. The method to improve sanitary-hygienic condition of water in the bath for cooling carcasses that are guaranteed to prevent cross contamination of raw meat pathogenic and conditionally pathogenic microorganisms was developed on the basis of bacteriological researches.

Polishchuk V. A. Theoretical aspects of agrarian enterprises' competitiveness management // News of Poltava State Agrarian Academy. – 2017. – № 3. – P. 140–142.

The notion of competition, competitiveness of enterprises, the ways of its improving, and the factors affecting competitiveness have been considered in the article. The system of measures to raise the efficiency of management have been suggested. The emphasis is placed on the fact that the competitiveness problem is global and influences many aspects of both economic and social policy of the state, on the one hand, and on the other hand, it is related to the interests of all citizens as consumers of goods.

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