

## RESUME

**Petrichenko V. F., Vishnevskaya O. V., Tugueva I. V., Fatnev V. V.** Photosynthetic activity of *Lupinus angustifolius* in monosowings and agrocenosis in conditions of Polissya of Ukraine // Feeds and Feed Production. – 2010. – Issue 66. – P. 3–8.

The results of three-year researches on the study of the influence of sowing rates of *Lupinus angustifolius* in monosowings and legume-cereal mixtures on the formation of photosynthetic productivity are expounded.

**Buhayov V. D., Scherbyna L. P., Maksymov A. M., Kulka V. P.** Ways of creation of new initial material of clover for the increase of feed productivity and quality // Feeds and Feed Production. – 2010. – Issue 66. – P. 9–13.

Results of joint researches on the creation of new initial material of clover for further selection work on breeding new high productive varieties resistant to diseases and pests and having high adaptive traits are presented.

**Kalyuzhna E. A., Ukrainets V. V., Ukrainets H. V., Klymchuk S. S., Kazmyruk H. F., Bondarenko K. B.** New genetic material in selection of strain-determined forms of green pea at Uladovo-Lulinets research-selection station // Feeds and Feed Production. – 2010. – Issue 66. – P. 14–19.

At Uladovo-Lulinets research-selection station strain-determined forms of peas and forms with chameleon-type leaf for selection of productive green pea lines resistant to lodging and strain-determined have been involved into breeding process.

**Babych A. A., Ivanyuk S. V., Babiy S. I.** Manifestation of transgression by the main quantitative characteristics of faba bean productivity in F<sub>2</sub> // Feeds and Feed Production. – 2010. – Issue 66. – P. 20–24.

Assessment of the quantity and level of transgression manifestation in hybrids of the second generation (F<sub>2</sub>) of faba bean by quantitative characteristics: plant height, quantity of productive nodes, quantity of beans per plant, quantity of seeds per plant, seed mass per plant is carried out.

**Bardakov A. H., Bardakov V. A., Zhydok N. P.** Adaptive breeding of fodder lupine in the area of Ukrainian Polissia // Feeds and Feed Production. – 2010. – Issue 66. – P. 25–30.

The basic results of breeding work with fodder lupine varieties with high adaptive capacity are stated. Varieties of yellow lupine Progressive and white lupine Shchedry 50 with high-yield of grain and green mass, early-maturing, resistant to fusariose and drought, low-alkaloid and high protein content are created and proposed for the production. Constant lines with high resistance to anthracnose are isolated and studied in the variety trials.

**Barylko M. H.** Peculiarities of the inheritance of a number of quantitative traits in hybrids F1 of spring vetch (*Vicia sativa* L.) // Feeds and Feed Production. – 2010. – Issue 66. – P. 31–35.

Results on the study of two-year investigation on the inheritance of quantitative traits of *Vicia sativa* L. hybrids F1 depending on the cultivation conditions are given.

**Babych A. O., Ivanyuk S. V., Lekhman A. A.** Hybridological analysis of faba beans hybrids F1 // Feeds and Feed Production. – 2010. – Issue 66. – P. 36–38.

Assessment of hybrids F1 of productivity elements by the level of dominance and heterosis is carried out.

**Miroshnikova O. V., Marynych L. H.** Determination of correlations and their density in the samples of *Bromopsis inermis* for creation of the new initial material // Feeds and Feed Production. – 2010. – Issue 66. – P. 39–42.

On the base of the study of collection examples of *Bromopsis inermis* the level of expression of quantitative features and their variability, correlation ties and their density are determined. The source for hybridization is selected.

**Prymachuk M. I.** Optimization of the variety composition of winter triticale in the western Forest-Steppe of Ukraine // Feeds and Feed Production. – 2010. – Issue 66. – P. 43–47.

Zone and regional approaches to zoning of winter triticale varieties taking into account their adaptive properties, ecological plasticity and trends of their use are expounded in the article.

It is offered to pay the main attention to genetic resistance to the most widespread diseases, terms of wintering and zoning of varieties with high protein and cellulose content in grain. On results two-year data (2008-2009) it is offered to grow new varieties of winter triticale with economic valuable traits in the region.

**Balan V. M., Schehlovsky M. M.** Field emergence of sugar beet seed as a factor of sowing for the final density of plant stand // Feeds and Feed Production. – 2010. – Issue 66. – P. 48–53.

The results of analysis of field emergence of sugar beet seed under the influence of hydrothermal factors during 1999-2009 are presented in the article.

**Ishenko V. A.** Effectiveness of application of mineral and bacterial fertilizers when growing pea of moustached type in conditions of the northern Steppe of Ukraine // Feeds and Feed Production. – 2010. – Issue 66. – P. 54-60.

Results of the research of the influence of bacterial preparations of nitrogen-fixing and phosphorus mobilizing action in combination with mineral fertilizers on the productivity of pea of moustached type varieties are given.

**Kondykov I. V., Soboleva H. V.** Field pea as a specific feed culture in the structure of species *pisum sativum l.* // Feeds and Feed Production. – 2010. – Issue 66. – P. 61–67.

The role of field pea in expanding adaptive potential of species *Pisum sativum L.* is demonstrated. Possibility of field pea use as a forage culture is determined. New methods of field pea selection are elaborated.

**Klymchuk O. V.** Characteristic of the model of simple corn hybrids for cultivation under conditions of Forest-Steppe of Ukraine // Feeds and Feed Production. – 2010. – Issue 66. – P. 68–72.

The results of complex investigation of simple corn hybrids are presented and characteristic of the basic economic traits which must form the model of these hybrids suitable to cultivation under conditions Forest-Steppe of Ukraine are given.

**Hetman N. Y., Kyphoruk V. V.** Formation of feed productivity of agrophytocenosis of annual crops when producing high protein feeds // Feeds and Feed Production. – 2010. – Issue 66. – P. 73–77.

Results of long-term researches on the study of feed productivity of agrophytocenosis of annual cereal, legume and cabbage crops maturing at different time for production of different fodders under conveyor supply are presented.

**Kvitko H. P., Brun I. N., Masur V. A., Davymoka A. V., Lomachevskyy S. M., Tkachuk O. P., Samilyak M. V.** Adaptive energy saving technology of growing perennial legumes for forage in conditions of the right-bank Forest-Steppe // Feeds and Feed Production. – 2010. – Issue 66. – P. 78–82.

The results of bioenergy evaluation of alfalfa, sandy sainfoin, white sweet clover, bird' foot trefoil cultivation depending on the sowing method, fertilization and regimes of grass stand use are stated.

Total energy cost, output of gross and exchange energy with the crop as well as energy ratio and energy efficiency ratio are determined.

**Vasylenko M. H., Deryk H. I.** Assessment of agrotechnologies of soybean cultivation on grey forest soils // Feeds and Feed Production. – 2010. – Issue 66. – P. 83–90.

Investigations of the agroecological and biological efficacy of complex application of by-products, biological preparations, mineral fertilizers, microelements of growth stimulators in soybean sowings have been carried in short crop rotations. Dependence of the yield on these factors has been determined.

**Kaminsky V. F., Mosyondz N. P.** Influence of the technology elements of soybean cultivation in conditions of the northern Forest-Steppe of Ukraine // Feeds and Feed Production. – 2010. – Issue 66. – P. 91–95.

Results of researches studying the dependence of soybean productivity on sowing terms and methods, fertilization system and seed inoculation in conditions of the northern Forest-Steppe of Ukraine are stated.

**Nagorny V. I.** Influence of sowing terms and methods on the productivity of soybean varieties // Feeds and Feed Production. – 2010. – Issue 66. – P. 96–102.

Results of researches on the study of productivity of soybean varieties depending the sowing terms and methods when cultivating in conditions of the north-eastern Forest-Steppe of Ukraine are stated. Optimum sowing terms and methods soybean varieties of various maturity groups are determined.

**Bakhmat O. N., Chynchyk A. S.** Influence of agrotechnical measures on soybean productivity in conditions of the western region of Ukraine // Feeds and Feed Production. – 2010. – Issue 66. – P. 103–108.

The importance of soybean in solving food and energy problems is clearly observed in Ukraine, where during the last decade sowing areas grew from

16000 ha in 1996 to 582000 ha in 2007, the production of seeds accordingly from 22000 ton to 0,72 mln ton. Inoculation of seeds by rysotorfin helps to supply soybean with nitrogen for 50-70% from general rate and increases seed yield by 1,8-4,5 centners per ha. It is reasonable to treat seed in combination with vermistim for bigger effect of rysotorfin.

**Dydovych S. V., Kolisnyk S. I., Kobak S. Y.** Influence of the rhizobia strains on the productivity of plants and quality of seed of vicia faba in conditions of Forest-Steppe of Ukraine // Feeds and Feed Production. – 2010. – Issue 66. – P. 109–104.

The presowing inoculation of seeds of *Vicia faba* L. by *Rhizobium leguminosarum* bv. *viciae* high efficient strains B-9 in the agrocenosis of the Forest-Steppe of Ukraine on the background of soil population increased productivity of plants and improved quality of seed substantially during four years. A strain of B-9 is recommended as base of biopreparation for application in modern agrotechnology of *Vicia faba* cultivation.

**Shepilova T. P., Kurcev V. O.** Influence of microfertilizers on soybean plant productivity // Feeds and Feed Production. – 2010. – Issue 66. – P. 115–119.

Results of researches on the use of microfertilizers for soybean seed and sowing treatment conducted in Kirovohrad region are presented. It is revealed that the use of microfertilizers has a positive influence on productivity formation of plants and increases the yield.

**Hanzhelo O. I., Sichkar V. I.** Hungal diseases in soybean agrocenosis of Odessa region // Feeds and Feed Production. – 2010. – Issue 66. – P. 120–127.

Data on the monitoring of soybean fungal diseases for the period of 1980-2009 under changing climatic conditions are given. New soybean micopathogens for Odessa region are revealed. Varieties resistant to fungal diseases in field conditions are described.

**Andriyenko A. L.** Influence of soybean share increase in the structure of sowing areas and fertilizing system on its productivity and seed quality // Feeds and Feed Production. – 2010. – Issue 66. – P. 128–132.

Generalized results of researches of the influence of weather conditions on the peculiarities of soybean growth and development depending on the fertilizing systems and increase of its share in the structure of sowing areas in the

northern Steppe of Ukraine are given. It is discovered that soybean cultivation in grain-ploughing crop rotation results in the decline of seed productivity on the organic-mineral fertilizing system by 20,8-4,3 %, and in a crop rotation with soybean saturation to 60 % in all researched systems – by 6,6-10,7 %. Increase of soybean share in the structure of sowing areas from 20 to 60 % substantially promoted maintenance of albumen in its seed.

**Plotnikov V. V., Hilchuk V. H., Humenny M. B., Nakonechny V. O.** Modern technologies of spring vetch cultivation for seed // Feeds and Feed Production. – 2010. – Issue 66. – P. 133–138.

Results of researches on the productivity dependence of new intensive spring vetch varieties on the systems of fertilization, seed cultivation with nitrogen fixing microorganisms, outside roots nutrition by macro- and micro fertilizers are presented.

**Golodnaya A. V., Pavlenko V. Y., Stolyar E. A.** Blue lupine and spring triticale variety selection for companion cultivation // Feeds and Feed Production. – 2010. – Issue 66. – P. 139–145.

The results of seed germination of different varieties of blue lupine and spring triticale in the laboratory conditions with the purpose of variety selection for cultivation in heterogeneous agrophytocenosis are stated.

**Cholovsky Y. N.** Peculiarities of water consumption by lupine sowings depending on mineral fertilizer application // Feeds and Feed Production. – 2010. – Issue 66. – P. 146–150.

Results of researches on the study of peculiarities of water consumption by lupine sowings depending on mineral fertilizer application in conditions of the right-bank Forest-Steppe of Ukraine are elucidated.

**Didovych S. V., Parkhomenko A. L., Butvyna O. Y.** Efficiency of biological facilities under chickpea cultivation in agrocenosis of Ukrainian Steppe // Feeds and Feed Production. – 2010. – Issue 66. – P. 151–157.

High effectiveness of application of a complex of biopreparations on the base of nodule bacteria *Mesorhizobium ciceri*, phosphate mobilizing bacteria, microorganisms – antagonist of phytopathogenes for pre-sowing treatment of chickpea seeds and practicability of the application of *Bacillus thuringiensis* strains for plant protection from *Liriomyza cicerina* has been shown in the field experiments of the Steppe of Ukraine. It may serve as a base for complex tech-

nology of microbial preparation application for chickpea cultivation to obtain ecologically safe products.

**Telezhenko L. N., Atanasova V. V.** Lentil as important national resource of plant protein // 158–163.

It is shown that lentil has rich chemical composition and can be a source of plant protein. Fractional and amino acid composition of proteins, their digestion depending of the type of raw material treatment are studied.

**Pelekh L. V.** The role of legume crops in the increase green forage quality in conditions of the right-bank Forest-Steppe of Ukraine // Feeds and Feed Production. – 2010. – Issue 66. – P. 164–169.

The influence of faba beans and white lupine on biometric indices of oats is set. Differences in the accumulation of dry mass and high-quality state of green forage depending on optimization of technological measures are found out.

**Kymak Y. V.** Winter wheat grain quality depending on the growing technology components in conditions of the northern Forest-Steppe // Feeds and Feed Production. – 2010. – Issue 66. – P. 170–175.

Results of three-year researches on the influence of sowing terms, seed rates, systems of protection from harmful organisms on productivity and quality formation of winter wheat grain of different varieties are presented. Positive response of new winter wheat varieties to late sowing terms at various seed rates is revealed. It is established that the displacement of sowing terms in the direction of late ones promotes the improvement of qualitative indices of the winter wheat grain.

**Kononyuk L. M., Oliynyk K. M., Davydyuk A. V., Dmytrenko O. V., Vetrova N. A.** Comparative assessment of winter wheat variety productivity and quality depending on the growing technology in conditions of the northern Forest-Steppe // Feeds and Feed Production. – 2010. – Issue 66. – P. 176–182.

Results of four-year researches on the study of the influence of winter wheat growing technology on its productivity and grain quality indices depending on the variety are presented. Technological techniques of the increase of grain productivity and quality are substantiated.

**Demydas H. I., Ivanovska R. T., Kovalenko V. P., Malinka L. V.** Indices of alfalfa organogenesis and productivity depending on the sowing terms and cover crop // Feeds and Feed Production. – 2010. – Issue 66. – P. 183–188.

The questions of the influence of sowing terms and cover crops on development of alfalfa, indices of organogenesis, and crop productivity are shown in the article.

**Burko L. M.** Influence of the cultivation technology elements on the yield formation of fodder beet // Feeds and Feed Production. – 2010. – Issue 66. – P. 189–194.

Results of the study of factors influencing on the formation of fodder beet yield depending on variety peculiarities, level of fertilization and plant density are presented.

**Bilityuk A. P., Isakov V. V., Potapchuk Y. V.** Triticale as a forage protein crop // Feeds and Feed Production. – 2010. – Issue 66. – P. 195–200.

On the basis of long-term researches it is offered to pay attention to varieties that in conditions of the western Polissya of Ukraine form high indices of protein, gluten, amino acids and other organic substances when growing triticale. According to results of six-year data (2003-2006, 2006-2009) it is suggested to apply  $N_{60}P_{60}K_{120}$  and  $N_{120}P_{60}K_{120}$  and water soluble mineral fertilizers Akvarin, Crystalon, Nutrivant Plus at the doses of 4-6 kg/hectare at the VII stage of organogenesis. Seed sowing should be done on September 15-25 at the sowing rate of 4,5-5 million per hectare. Such approach enables to form in grain 12,7-14,2% of protein, 60,2-62,7% of starch, 1,72-2,19; 0,88-1; 0,63-0,73% of ash, phosphorus and potassium, correspondingly.

**Sobko N. H., Sobko N. A.** Fodder productivity of Lucerne depending on plant residues of the cover crop // Feeds and Feed Production. – 2010. – Issue 66. – P. 201–205.

Results of researches on the study of the influence of plant residues of the cover crop – spring barley on alfalfa density during the first year of use, yields of its green forage and fodder productivity are stated.

**Markina O. V.** Agrobiological estimation of annual mixtures // Feeds and Feed Production. – 2010. – Issue 66. – P. 206–213.



Results of researches of agrobiological estimation of fodder pea plants in mixtures with spring grain crops in the conditions of Polissya are given. Advantages of binary cenosis over crop monosowing are determined.

**Moldovan Z. A.** Models of pasture grass stands maturing at different time and estimation of their efficiency in conditions of western Forest-Steppe // Feeds and Feed Production. – 2010. – Issue 66. – P. 214–220.

Experimental data on the study of the efficiency of cereal and legume-cereal phytocenosis maturing at different time of pasture use are presented. Influence of grass stand composition on productivity of green mass weight, nutrient output is shown. Economic and energy indices of grass mixture cultivation are considered. Multicomponent grass mixtures maturing at different time with high energy and protein nutritious value are offered.

**Vasko P. P., Klyha E. P.** Selection of species and varieties of perennial grasses for multicomponent pasture grass mixtures and their productivity // Feeds and Feed Production. – 2010. – Issue 66. – P. 221–226.

A new method of selection of species and varieties of perennial grasses for multicomponent pasture grass mixtures is proposed. The essence of the method is to select basic components of grass mixture with asynchronous growth rhythms over vegetation. This process allows to choose varieties more intensively using the optimum conditions of vital activity that correspond to physiological and biochemical peculiarities of grasses. Such pasture grass mixtures provide more even supply of green forage over grazing cycles and form higher productivity.

**Borshchenko V. V.** Productive characteristics of grass stand during aftergrass usage of pasture // Feeds and Feed Production. – 2010. – Issue 66. – P. 227–233.

Research results of crop-producing power and feeding power of grass during aftergrass usage of pasture have been stated in the article. Productive characteristics of grass stands of different variants of usage have been established. In the context of conducted researches, the variants of pasture usage which make it possible to provide the maximum yield of livestock products per hectare of pasture have been recommended. At the same time during regular grazing it is necessary to take notice of the fact that the feeding power of grass at the end of grazing season as for the basic parameters (characteristics) doesn't correspond to the normative parameters (characteristics) of animal feeding, particularly the norms for young animal feeding of meat cattle breeds.

**Dutka H. P., Senyk I. I., Senyk R. I., Yashchuk T. V.** Productivity of haylands on wind-eroded slopes in dependence on fertilizer // Feeds and Feed Production. – 2010. – Issue 66. – P. 234–238.

The results of researches on the productivity of haylands on wind-eroded slopes depending on a fertilizer are given. Influence of fertilizers on productivity formation of grass mixtures of different phytocenotic composition is determined.

**Stetsyuk N. H.** Productivity of perennial grass cereal-hygromezophyts on the drained peaty lands of the western Polissya in conditions of modern climate // Feeds and Feed Production. – 2010. – Issue 66. – P. 239–246.

Yield potential and productive longevity of foxtail grass and reed canary on meliorated peaty lands is studied. The dependence of these meadow cereals on the age condition of the grass stand and meteorological conditions of the period of active vegetation is determined.

**Kurhak V. H., Tovstoshkur V. M.** Productivity of different type grass stands at various fertilization systems on dry meadows of the left-bank Forest-Steppe // Feeds and Feed Production. – 2010. – Issue 66. – P. 247–252.

The results of four-year researches on the study of the influence of grass stand type at the different fertilization systems on the dry meadow productivity, by the years of use, symbiotic nitrogen accumulation, mineral nitrogen return, botanical and chemical composition of forage are shown. The advantage of sown Lucerne- and sainfoin-grain stand is established. They provided 99.7-115.0 centners of dry matter and 14.9-21.0 centners of crude protein per hectare.

**Panakhid H. Y.** Influence of nitric fertilizer and features of forming of meadow grasses on the composition of crude protein in the fodder of phytocenosis long duration // Feeds and Feed Production. – 2010. – Issue 66. – P. Feeds and Feed Production. – 2010. – Issue 66. – P. 253–257.

The results of three-year researches studying the influence of fertilization of grass stand of long duration on the composition of protein and aluminous nitrogen in it are given. Cross-correlation dependence of protein composition on the terms of nitric fertilizer application and index of leaf surface of meadow grasses is set.

**Senyk I. I.** Fertilizer influence on the change of sprout density of cereal-legume grass mixture // Feeds and Feed Production. – 2010. – Issue 66. – P. 258–261.

In this article the author analyzes the results of researches on the fertilizer influence on the change of sprout density of cereal-legume grass mixture. It is determined that fertilization of the field phytocenosis by complete mineral fertilizer N<sub>90</sub>R<sub>90</sub>K<sub>90</sub> superficially and by Cristalon as outside root nutrition provides the highest total sprout density.

**Chepur S. S., Mospan H. M.** The role of meadow associations in the ecology of agrolandscapes of the mountain-forest belt of the Carpathians // Feeds and Feed Production. – 2010. – Issue 66. – P. 262–267.

Agrolandscapes of the mountain-forest belt of the Carpathians is estimated with the help of ecological and cartographic criteria and the role of meadow associations in their ecology is shown.

**Klimenko V. P.** Feeding value of perennial leguminous grasses and efficiency of its use // 268–273.

Effective method of saving energy and protein value in the alfalfa and red clover silages is proposed. The method is based on application of mix from polyferment preparation Ferkon and bacterial preparation Biosib as conserving agent.

**Kurnaev A. N.** Influence of haylage making technology on crude protein losses and its fractional composition during storage // 274–280.

The influence of conservatives and the type of store-house on the qualitative characteristics of Lucerne haylage, saving of crude protein and its fractional composition during storage is investigated.

It is established that dry matter and protein losses take place mainly during field withering and the first three months of haylage making while application of conservatives and polymers results in its quality improvement. Under prolonged period of storage easily soluble fraction of crude protein grows under all technologies.

**Bozhok L. V.** Influence of preparation BPS-L on the quality and storage of silo forages // Feeds and Feed Production. – 2010. – Issue 66. – P. 281–285.

The use of microbial preparations on the basis of microbial strains *Lactobacillus plantarum* L5 and *Bacillus subtilis* B3 for ensiling grass-legumes can provide high quality fodder and meet the needs of animals in feed protein.

**Skoromna O. I.** New system of feed assessment in milk units and making diets for cows according to these indices // Feeds and Feed Production. – 2010. – Issue 66. – P. 286–294.

New methodological approach to feed assessment in milk, protein, carbon and energy units and making diets for cows of different productivity according to these indices is investigated.

**Ovsienko A. I., Khimich O. V., Ovsienko S. M.** Biological destruction of antinutritious elements in soybean and fodder bean grain and their productive and physiological effect on the organism of milking cows // Feeds and Feed Production. – 2010. – Issue 66. – P. 295–303.

The problem of the development of energy-keeping technological method of biochemical destruction of antinutritious elements in soybean and fodder beans is reflected, and their productive and physiological effect in the feeding diets of milking cows is studied.

**Koval S. S., Mandryk M. O., Bihas O. V.** Interrelation of fat and protein content in cow milk of Ukrainian black-stripe and Simmental breeds // Feeds and Feed Production. – 2010. – Issue 66. – P. 304–308.

Results of researches on the correlations between fat and protein content in cow milk of Ukrainian black-stripe and Simmental breeds by the seasons and lines are stated.

**Tymchuk S. S., Stasyuk O. K.** Application of malt sprouts – residues of beer making in cow and young bull feeding // Feeds and Feed Production. – 2010. – Issue 66. – P. 309–313.

Residues of beer making, particularly malt sprouts, may substitute high protein feeds such as peas in the diets of cows and young bulls having positive effect on the average daily milk yields and live mass gain.

**Kucheriaviy V. P.** Morphological indexes of the thick intestine of pigs when feeding them lactines with prestarter fodder // Feed and Feed Productions. – 2010. – Issue 66. – P. 314–318.

It is shown that feeding lactines K-10 and K-1 to young pigs does not have probable effect on weight and length indexes of the intestine, but causes the tendency to core sizes enlarging in mucous membrane.

**Sukhovukha S. M.** Productivity of young pigs when feeding fat and fat-lysine supplements // Feeds and Feed Productions. – 2010. – Issue 66. – P. 319–322.

It is shown that feeding of fat and fat-lysine supplements to young pigs results in the increase of average live mass gain by 9,4 and 16,2 %, and reduction of feed consumption per kg of weight gain by 4,2 та 10,4 %.

**Novhorodska N., Voitsekhivska Y.** Influence of different premixes in full-diet mixed foddors on the calcium and phosphorus balance in young pigs // Feeds and Feed Productions. – 2010. – Issue 66. – P. 323–327.

Data on the results of calcium and phosphorus balance in young pigs fed by full-diet mixed foddors with introduction of standard P52,55-1-89 and improved vitamin-mineral complexes UP 1 and UP 2 is given.

**Kulyk M. F., Obertyukh Y. V., Zayats A. P., Herasymchuk A. I., Kostetska Y. V., Hryplyvyi V. V.** Silicon complexes with microelements as a new trend of animal mineral nutrition balancing // Feeds and Feed Productions. – 2010. – Issue 66. – P. 328–337.

Silicon complexes with microelements on the base of volcano tuffs are developed in order to increase the level of microelement assimilation and their analogical productive action under lower (twice) doze of introduction into diet composition in comparison to norm animal feeding.

**Kulyk M. F., Obertyukh Y. V., Chornolata L. P., Kostetska Y. V., Kulyk Y. M., Kotsyumbas I. Y.** Influence of volcano tuffs on the mineral composition of hen eggs // Feeds and Feed Productions. – 2010. – Issue 66. – P. 338–344.

Substantial increase ( $P < 0,001$ ) of zinc content in egg albumen under introduction of volcano tuff of saponite origin into laying hens' mixed fodder composition is established. Such egg is a diet product of people meals.