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THE CREATIVE CONTRIBUTION OF KHARKIV SCIENTIFIC SCHOOL IN METHODOLOGY AND TECHNOLOGY OF FEEDING HIGH PERFORMANCE ANIMALS IN MODERN AND EXTREME CONDITIONS OF MILK AND BEEF FARMS IN UKRAINE

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***Summary.** In the article the main priorities of developments and achievements of the Kharkiv scientific school of scientists and its successors in norms and technology of feeding animals in modern and extreme conditions of dairy and beef high performance farms in Ukraine, the priority directions of development of modern science normalized feeding farm animals and increase the productivity and profitability of livestock in the Ukraine in the next 10-20 years have been presented.*

***Key words:** methodology, logistics, norms of feeding, highly-performance animals, production of milk and beef.*

Problems urgency. Outstanding role and priority scientific schools in the development of agricultural science in Ukraine can not be overestimated, particularly scientists Kharkiv scientific school (Belgovskyy I.V., Pshenychnyy P.D., Bogdanov G.O., Maksakov V.J.) and their followers with standardization and technology of feeding farm animals in the last 50-60 years.

The purpose of research. Generalization of the creative contribution of scientists of Kharkiv scientific school in valuation methodology and logistics and high-performance technology feeding the animals in the present and future extreme conditions of dairy and beef farms in Ukraine.

Materials and methods of research. Used conceptual and conclusions of norms and feeding technology of high performance animals presented in the monograph "Theory and practice of normalized feeding cattle," edited by V.M. Kandyba, I.I. Ibatullin V.I. Kostenko (2012).

Results of research. Recognition of the importance of the developments and achievements of scientists of Kharkiv scientific school and its successors in

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Ukraine, its contribution to the development of science technology normalized feeding farm animals cited from the anniversary of the "Journal of Agricultural Science" №12, 2006, dedicated to the 75th anniversary of the Ukrainian Academy of Agrarian Sciences "Important of Academy scientists contribute to the development of native technology production and processing of animal products. Founders of domestic technologies of industry livestock production in dairy farming are the scientists of the Institute of Livestock: Y.A. Danilenko, O.C. Trishin, V.M. Kandyba, E.I. Admin, V.P. Savran. Formed breeding base, breeding programs developed and breeds feeding technology intensive growths of bulls, energy and resourcesaving beef in Polesye Ukraine (M.V. Zubets, G.O. Bogdanov, V.P. Burkat, V.M. Kandyba, F.I. Ostashko, I.I. Ibatullin).

Decisive influence on the formation of national conceptions of feeding farm animals had scientific works of outstanding Ukrainian scientists I.V. Belgovskyy and P.D. Pshenychnyy and their successors research schools, including G.O. Bogdanov, T.V. Gorb V.J. Maksakov, G.T. Klitsenko, V.P. Demyanchuk, V.M. Kandyba, O.M. Mamenko, Y.I. Gnoyevyy, I.V. Gnoyevyy.

Developing theoretical basis and applied the provisions followers scientific school I.V. Belgovskyy, P.D. Pshenychnyy, I.I. Ibatullin, G.A. Bogdanov, V.J. Maksakov, T.V. Gorb, G.T. Klitsenko, V.M. Kandyba, O.I. Zverev, O.E. Pryvalo, V.F. Karavashenko and others have contributed to the development of the doctrine of feeding livestock and feed technology, including:

- The theoretical basis and practical methods of fullvalue feeding farm animals;
- The basic regulararitys of energy, protein, amino acid, mineral and vitamin nutrition of cattle, pigs and sheep;
- Improved standards of feeding farm animals, published in different years in textbooks and relevant references;
- Begraunded regulararitys of consumption and utilization of dry matter and metabolizable energy at feeding of young stock, of dairy combined and beef breeds of Ukraine at intensive growth to high weight condition;
- First in Ukraine and former USSR countries developed and experimentally proved breed feeding technology that provides to predict the effectiveness of intensive fattening of dairy bulls and beef performance of dairy. combined and beef breeds;
- Developed and put into production higheffective technologies of forage, feed additives and premixes, as well as table determining their nutritional value.

Scientific achievements in animal feeding and nutritional evaluation of feed materials involving native scientists in biochemistry and physiology of digestion and metabolism covered in relevant textbooks that plays an important role in training highly qualified specialists and scientific personnel.

During the last 35-40 years, authors of books on feeding farm animals for students agricultural in higher educational institutions of the former Soviet Union were Ukrainian scientists (A.P. Dmytrochenko and P.D. Pshenychnyy "Feeding of agricultural animals", 1975, G.O. Bogdanov, V.M. Kandyba, O.I. Zverev, O.E. Pryvalo, 1981, 1990). "

The priorities of present and future development of the science of normalized feeding farm animals and increase the productivity and profitability of livestock in the Ukraine in the next 10-20 years should be considered:

➤ A comprehensive laboratory evaluation and detailed composition, nutritional and biological value of all available feed resources and feed of Ukraine in zonal aspect for 25-30 or more elements of new norms and further correction of the needs of animals in complex nutrients and bioactive substances for the practical achievement of the genetic potential productivity, reproductive capacity, productive longevity, prevention of immune and nutritional origin diseases;

➤ Correction norms of feeding of highlyproducing animals with considering breeds needs, zoohygienic housing conditions, technological and stress factors, extreme temperature and weather changes;

➤ Experimental study norms of physiologically maximum dry matter intake of feed per 100 kg of live weight in relation to the concentration of metabolizable energy in the dry matter, the size of the body weight, lactation phases, the level of productivity, technology of preparations and feeding forages, forage mixtures and combined with automatic feeders for feeding energy and protein-vitamin-mineral additives superhighproductive modern breeds;

➤ Experimental correction norms of degradable and non-degradable protein in the rations of highly productive cows, heifers dependent on ration structure, technology, processing, storing, preserving and feeding of feed;

➤ Scientific substantiation norms of amino acid supply for highly productive dairy and beef cattle and development of effective methods and technologies to protect protein and essential amino acids from degradable in rumen and prolonged assimilation in the gut;

➤ Optimization of protein supply standards towards their decline due to correction of non-degradable protein and essential amino acids protected in the diets of cows;

➤ Begrounding of optimal parameters of energy-related amino acid in the diets of highly productive cows on the basis of performance and lactation phases;

➤ Optimization of norms carbohydrate supply highly productive cows in the context of the study of optimal levels of neutral – detergent and acid – detergent fiber in food and diets;

➤ Develop of content and organization of large-scale practical use of domestic premixes, zonal and address of the new generation of high biological,

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productive action, anti-stress, immune-stimulating antyradionuclids, metaninhibired properties on actual of feed;

➤ Development and introduction of zonal recipes available to farms, effective protein-vitamin-mineral additives (BVMA) with use of local protein feed with slow degradable in the rumen synthetic protein sources and legumes heat-treated.

In relation to the extreme urgency and vital need, at the level of national security, the providing of the population of Ukraine animal products on the European and world standards, scientists of Kharkiv state veterinary academy was first developed and published "Information database for innovative development of livestock" (2012), which fully covers all the latest norms and technological requirements, standards, new national standards of feeding livestock, poultry and defines the main directions and provided dynamic increase the production of milk, meat and eggs to the standards of medical nutrition through innovative development of all intensive livestock industries in Ukraine over the next 10-20 years.

Conclusions

1. The main priority developments and achievements of the Kharkiv scientific school of scientists and its successors in norms and technology of feeding highlyproductive animals in modern and future conditions of dairy and beef farms in Ukraine, priority areas of current and future development of the science of normalized feeding animals and increase the productivity and profitability of livestock in Ukraine have been presented.

2. Practical providing of new detailed norms and technological solutions with high performance animals feeding in the next 20-30 years to ensure production of environmentally safe animal products with high biological usefulness, reduction of 20-30% of the areas under forage crops, exception annual losses of 20-40% nutrients during storage of silage, hay; reduction of 30-40% of the investment for the construction of forage warehouses and 50-80% for the purchase and production of vitamins, premixes; an increase of 20-30% of dairy, meat productivity and reproductive ability of animals on farms and industrial complexes of the new generation of the XXI century.

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