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## **Scientific activity and life journey the first rector of the Ukrainian Agricultural Academy P.D. Pshenichniy**

At the present stage of civilization is impossible to imagine human existence without animal products. By increasing agricultural production and especially livestock products was made possible an increase in population. There was possible an increase in population by increasing agricultural production and especially livestock products.

According to the American scholar L. Brown domestication of plants and animals began only 10,000 years ago, in the meantime began the accumulation of experience in breeding and feeding animals. The history of the science of animal nutrition has very small history is not very long – only about 200 years. In 1809 Albrecht Thaer – agronomist and soil scientist has published the 1st volume of the „Principles of rational agriculture”, which marked the beginning of the science of nutrition.

The most intense contribution to the development of the science of animal nutrition was made in the second half of the nineteenth century. At this time classic experiments on animal nutrition were conducted in Russian Empire and later in the Soviet Union. Among the leading scholars of this period should be noted: M.P. Chyrvynskoho, M.I. Prydorohina, M.F. Ivanova, Y.F. Liskuna, I.S. Popovu and others.

As early as in the beginning of the twentieth century such scholars as O.P. Dmytrochenko, M.F. Tomms, I.M. Kuznetsov, Ie.A. Sokolov, A.S. Solum, N.I. Denysov and others threw a side light upon the science of nutrition of farm animals. Among them was P.D. Pshenychnyi, which went down in history of zootechnics as qualified professional.

This article discloses life journey, the scientific evolvement of P.D. Pshenychnyi, his research legacy as a talented zootechnician. The analysis of scientific research achievements in the field of animal husbandry has been made. Also his activity has been characterized during the period of heading the Ukrainian Agricultural Academy (now The National University of Life and Environmental Sciences of Ukraine), as well as discussed a new methods of breeding farm animals.

By Soviet Union's time, articles, collections, and scientific works of the P.D. Pshenychnyi were published actively. He was an editor of many agricultural journals, one of them was „Nutrition and feeding of farm animals”, but

works that reveal the multifaceted Pavel's personality hasn't been done. Only a few articles were published, as dedicated to scientist on anniversaries.

During the years of Ukraine's independence professor P.D. Pshenychnyi was devoted by two articles and edited volume, that were released in 2003, the 100th anniversary of the birth of Academician. The main researchers of his life and work are I.I. Ibatullin, V.D. Stoliuk, I.M. Bereziuk, H.V. Tantsurov, V.K. Kononenko, V.V. Otchenashko, M.Iu. Sychov, N.M. Slobodianiuk (most of them are students of the great zootechnician). Mentioned scientists uncovered the topic tangentially, so it requires further in-depth research, because P.D. Pshenychnyi is one of the founders of Ukrainian breeding.

The purpose of this article is to highlight little-known pages of the scholar's life and scientific works, and also to explore his contribution to the development of Soviet breeding.

This year, rather Nov. 12, 2013, marks 110 years since the birth of the famous scientist, Honoured Science Worker of Ukraine, Doctor of Science in Agriculture, Professor, first Rector of The National University of Life and Environmental Sciences of Ukraine, Academician of the animal husbandry department of Ukrainian Agricultural Academy Pshenychnoho Pavla Dmytrovycha.

This year, if to be specific Nov. 12, 2013, will be 110 years since the birth of the famous scientist, Honoured Science Worker of Ukraine, Doctor of Science in Agriculture, Professor, the first Rector of The National University of Life and Environmental Sciences of Ukraine, Academician of the animal husbandry department of the Ukrainian Agricultural Academy Pshenychnoho Pavla Dmytrovycha.

P.D. Pshenychnyi was born November 12, 1903 in the settlement Savytsia (Izyumskyi powiat, Kharkov Governorate) in the family of worker. His father worked as a blacksmith, locksmith, steelfixer in different plants in Donbass, Yekaterinoslav (Dnepropetrovsk), so his son from childhood accustomed to the complex locksmith craft. His father wanted his son to become a highly skilled mechanic and continued his work tradition. Upon completion in 1914 Savynskoi rural primary school, P.D. Pshenychnyi, in 1915–1918, worked as the locksmith – locksmith apprentice and assistant in Izyumsky major workshops of the South Donetsk railway. However, the thirst for knowledge never left him and in 1920 he graduated from Savynske higher primary school, in 1923 – Kharkiv Zoo profschool, and in 1926 – Kharkiv Zootechnical Institute. Since his life associated with scientific research and development of the major problems in animal husbandry. Being qualified as agronomist-zootechnician, P.D. Pshenychnyi until April 1930 worked as zootechnician in an expedition of the USSR People's Commissariat on research of gray Ukrainian cattle on Kobylakskyi Agrobases named Rakovskoho Poltava district; in Zlatopolskyi district committee in Shevchenko district; on breeding factory „Goryanka 2” Artemivskyi district; in Ukrsovkhozonunion; in the farm „Proletar Kharkivshchyny”; in science and technology sector of Commissariat of the USSR.

From 1930 until his pension in 1978, P.D. Pshenychnyi devoted himself to research in the field of animal husbandry and research activities, worked in

many research and educational institutions. In the period from 1930 to 1932 P.D. Pshenychnyi worked as head of the feeding farm animals department in Kyiv research zootechnic station in Terezin. Here he studied the chemical composition, digestibility and nutritive value of 67 forages of Right-Bank Forest steppe of Kyiv district, did a number of works on ensiling forage, pasture of cattle and, also, on growing veal calf. The principles and methods aimed on rearing cattle devised by him have been generally recognized.

In particular, he noted that the rationing of feeding by generally accepted indicators, when the energy is assimilated, etching of protein, calcium, phosphorus and carotene is very important and mandatory.

Having an active social position at that time P.D. Pshenychnyi worked as a research secretary in the People's Commissariat for Agriculture. Based on agricultural bulletin of Commissariat, Ukrkolkhozsentr and Ukrfiliyi Traktorotsentru № 19–20 from 20 April 1931 „On prohibition of destroying agronomic issues of pre-revolutionary literature”, was signed by the head of the commissariat Kuplevahskyi and scientific secretary P.D. Pshenychnyi. This suggests that the latter was an ardent devotee of the business, connoisseur and collector of acquired knowledge.

After working at the experimental station in Terezin, in March 1932 P.D. Pshenychnyi was transferred to the Western zootechnics research station in Sychivka Smolensk region, where he worked until November 1932 as a head of the department of feeding farm animals and deputy director on scientific work station.

Subsequently, the decision of the Presidium of the All-Union Academy of Agricultural Sciences named Lenin P.D. Pshenychnyi was transferred to Orenburg Research Institute of dairy and meat cattle breeding, where he was working from 3th of November 1932 to 17th of August 1937 as a head of the department of feeding agricultural animals and Deputy Director of research and scientific consultant of the Institute. During these years, researcher conducted a study of digestion and metabolism in calves of different age, breed and type of constitution, did a series of works on problems of breeding and feeding beef cattle. According to results of the experiments, summarizing the Kazakh national experience and mealsovkhoz practical training, P.D. Pshenychnyi developed a system of growing and feeding beef cattle in south-eastern arid and dry steppes of Kazakhstan and the Volga. For scientific achievements, he was awarded a small silver medal ENEA.

From September 5, 1937 until September 5, 1938 P.D. Pshenychnyi was a senior fellow at Research Institute for hybridization and acclimatization of animals „Askaniya Nova”, which conducted multiple experiments on study the nutritive value of forages, methods of silaging, systems of feeding and keeping milking cows, rearing calves, also, experimented in field of etiology, clinic, diagnosis and prevention of hypovitaminosis calves in southern steppe regions of Ukraine.

According to the results of research carried out in 1930–1937, Higher Attestation Commission in 1938 gave P.D. Pshenychnyi academic rank as candi-

date in Agricultural Sciences without defending a thesis, and in 1949 – a rank as professor in „Feeding farm animals”.

Selected by competition base, Pavlo Dmytrovych from September 1938 until November 1943, worked as head of the department of feeding farm animals, dean of zootechnics faculty, vice rector and rector of the Bashkir Agricultural Institute, Ufa, where he conducted fundamental research on problems of breeding pets, for what in 1940 he was awarded by Presidium of the Supreme Council of the The Bashkir Autonomous Soviet Socialist Republic.

After liberation from German occupation of Kharkov, P.D. Pshenychnyi returned to work at the Kharkov Institute of Zootechnics and from November 7, 1943 to October 23, 1953 there he was associate professor, professor and chair of feeding farm animals. On the base of the developed principles and methods of directed growing of young farm animals in 1948 on the Academic Council All-Union Research Institute on Animal Husbandry, P.D. Pshenychnyi defended his doctoral thesis on „Materials for the study of the growing of young farm animals”, and in 1949 he was awarded the degree of Doctor of Agricultural Sciences and the title of Professor by profession „Feeding farm animals”.

September 1, 1953 Pavlo Dmytrovych moved to Kyiv, where he worked as a head of the department of general zootechnics at Kyiv Agricultural Institute.

From October 1954 until March 1957, after the formation on the base of the Kiev agricultural and forestry institutes – Ukrainian Agricultural Academy (UAA), P.D. Pshenychnyi worked as the first rector of the newly established Academy, and in the same time as head of the department of general breeding. Since opening in 1957 zootechnical faculty with Ukrainian Academy of Agricultural Sciences at the helm, on base of the department of general breeding and feeding livestock of the former Kyiv Veterinarian Institute was established department of feeding farm animals headed by P.D. Pshenychnyi till 1974. In 1963 he organized at the department a laboratory of chemicalization feeding farm animals, which is still in the act of doing experiments. In the years of Ukraine's independence, by order of 30 March 2001 of The National University of Life and Environmental Sciences of Ukraine, the department „feeding farm animals and feed technologies” was renamed to „Feeding of agricultural animals and feed technologies named P.D. Pshenychnoho”.

Scientific research of the department related to the current issues of feeding farm animals and during all the time has a many-sided character. Managed by P.D. Pshenychnoho, department developed principles and techniques aimed on subject-oriented nurture and stimulating the development young cattle feeding, that has effected in positive consequences for metabolism. He made priceless contribution into improving the efficiency of cattle feeding.

Currently, research work group aims to develop effective ways of using feeds and feed additives. The research results of the department protected by 21 patent of Ukraine.

In parallel with the work of the rector in December 1956 Pavlo Dmytrovych became an academician of Ukrainian Academy of Agricultural Sciences, where in December 1959 he became Vice-President, and at the same time from July 1959 until May 1962, has served as Academician-Secretary of animal husbandry department. Concurrently, P.D. Pshenychnyi worked as docent of All-Union zootechnical higher courses in Belaya Tserkov, docent of the nutrition department of farm animals in Orenburg Agricultural Institute and department of animal husbandry in Orenburg Union Agricultural School; the head of the department of feeding farm animals of the Bashkir Agricultural Institute, Ufa; Head of feeding farm animals of the Ukrainian Scientific Research Institute of Animal (Kharkiv); head of the animal husbandry sector of Ukrainian SSR Academy of Sciences (Kyiv).

Another important area of Pavlo's life was devoted to training future specialists for agriculture sector. He loved young people and repeatedly said that „the student isn't a box, to be packed full, and the torch that should light up”.

During 45 years of teaching career, he has trained about 5,000 agronomists, livestock scientists and veterinarians. Professor P.D. Pshenychnyi has paid a great attention to the education of scientific change. Over the years in higher education and research institutions, he has trained 22 doctors and 138 candidates of sciences, of which – 19 for foreign countries. P.D. Pshenychnyi was also a public figure, organizer and leader of many congresses and conferences on animal husbandry. Paying great attention to the knowledge of animal husbandry, he often presented papers and lectures at Union, national, regional and district meetings, seminars and conferences. P.D. Pshenychnyi was elected a deputy of the Kyiv Regional Council of People's Deputies 5th convocation, was a board member of the National Society „Knowledge”, member of the board Ukrainian government Soviet-Czechoslovak friendship of technical and economic expertise and the State Planning Commission of the Ministry of Agriculture of Ukraine, member of the editorial board of the journal „Bulletin of Agricultural Science” and „Animal Ukraine”, „Ukrainian agricultural encyclopedia”, was a member of several scientific councils institutions. Since 1964 – founder and executive editor, and since 1968 – member of the editorial board of the collection of scientific papers „Feed and feeding of farm animals”, made 38 publications.

For outstanding achievements in training highly skilled specialists in agricultural production and highly qualified specialists, research and production activities, community work P.D. Pshenychnyi was awarded the Order of Lenin and Order of the Badge of Honour, many diplomas, medals, including four of them – Medals of Exhibition of Achievements of National Economy of the USSR. In 1969 he was awarded the honorary title „Honored Worker of Science of the USSR”. He really has achieved the highest title – the title of the all-national zootechnician.

P.D. Pshenychnyi has died after prolonged severe illness by 82-year life May 1, 1985 and was buried in Kiev.

Thus, we can conclude that working in many research and educational institutions, P.D. Pshenychnyi has created an original method of directed training and stimulation functions of nutrition and metabolism in young farm animals and the way to improve the efficiency of feed. He had studied the variability of age-specific and economically useful traits in animals under the influence of different levels of feeding and forming productivity of farm animals in ontogenesis. Most of his works are ahead of time and found recognition both at home and abroad.

His life journey is a prime example of selfless service to his people, an example of fidelity to his professional duties. His scientific achievements are still relevant and require further study and systematization.

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## Abstract

The article is devoted to an outstanding scientist in zootechnics P.D. Pshenichny, disclosing his life journey and scientific accomplishments.

He was a highly educated scientist, investigative experimenter, is closely associated with the production, farm workers, was an example of true national scholar and active public figure.

**Key words:** P.D. Pshenichny, zootechnics, education, science, nutrition, metabolism, farm animals, Ukrainian Agricultural Academy, The National University of Life and Environmental Sciences of Ukraine.