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**THE SECTORAL ACADEMIC INSTITUTIONS IN THE SYSTEM OF
SCIENTIFIC SUPPORT OF ANIMAL HUSBANDRY IN UKRAINE OF THE
20th – BEGINNING OF THE 21th CENTURY**

The purpose of the article is to highlight the stages of the formation and development of agricultural science on the basis of industry academic institutions of Ukraine, which carried out scientific and methodological guidance and coordination of scientific research, generalization of their scientific research taking into account the specifics of some sectors of the agricultural sector, in particular animal husbandry. The research methodology is based on the integrated use of general scientific, interdisciplinary and special historical methods, as well as a diverse base of sources, the basis of which are archival documents. The scientific novelty of the article consists in comparing the programs of activities and achievements of branch academic institutions for the needs of animal husbandry. The author first showed the influence of various organizational models of branch science on the effectiveness of scientific research on breeding, feeding and keeping of farm animals. It is proved that the organization of academic institutions has opened up real opportunities for finding optimal ways for the coexistence of agricultural research and higher professional education. At same time with a change in the organizational forms of sectoral academic science, research programs were revised. Under the auspices of the All-Ukrainian Academy of Agricultural Sciences in the field of livestock breeding, the problems of cattle crossbreeding, hybridization and acclimatization, breeding of new breeds and types were solved. On the basis of the Ukrainian Academy of Agricultural Sciences, the questions of improving of technologies for artificial insemination of livestock, developing the basics of balanced feeding and intensifying feed production were raised systematically. The southern branch of the Lenin All-Union Academy of Agricultural Sciences developed problems on the research of the selection effect, modeling animal selection for productivity, genetic analysis of herds, etc. It was

shown that the most successful scientific research in the field of animal husbandry was carried out under the scientific and methodological guidance of the NAAS, reflected in the development of the fundamentals of biotechnology and preservation of the animal gene pool, intensive reproduction of the population and directed breeding of young animals, physiology of productivity growth, quality control of products and raw materials of animal origin, etc.

Key words: *agricultural science, agricultural researching work, academic institutions, animal husbandry.*

ГАЛУЗЕВІ АКАДЕМІЧНІ УСТАНОВИ У СИСТЕМІ НАУКОВОГО

ЗАБЕЗПЕЧЕННЯ ТВАРИННИЦТВА УКРАЇНИ

XX – ПОЧАТКУ XXI ст.

Метою статті є висвітлення етапів становлення і розвитку аграрної науки на базі галузевих академічних установ України, які здійснювали науково-методичне керівництво та координування наукових досліджень, узагальнення їх наукових пошуків із урахуванням специфіки окремих галузей агропромислового комплексу, зокрема тваринництва. Методологія дослідження ґрунтується на комплексному використанні загальнонаукових, міждисциплінарних і спеціальних історичних методів, а також різнопланової джерельної бази, основу якої становлять архівні документи. Наукова новизна статті полягає в порівнянні програм діяльності та здобутків галузевих академічних установ для потреб тваринництва. Автором вперше розкрито вплив різних організаційних моделей галузевої науки на результативність наукових досліджень з розведення та селекції, годівлі та утримання сільськогосподарських тварин. Доведено, що організація академічних установ відкрила реальні можливості для пошуку оптимальних шляхів співіснування сільськогосподарської дослідної справи та вищої фахової освіти. Водночас із зміною організаційних форм галузевої академічної науки, переглядалися програми наукових досліджень. Під егідою ВУАСГН у галузі тваринництва вирішувалися проблеми метизації, гібридизації та акліматизації худоби, виведення нових порід і типів. На базі УАСГН системно піднімалися питання удосконалення технологій штучного осіменіння худоби, розроблення основ збалансованої годівлі, інтенсифікації кормовиробництва. Південним відділенням ВАСГНІЛ розроблялися проблеми з вивчення ефекту селекції, моделювання добору тварин за продуктивністю, генетичного аналізу стад та ін. Показано, що найбільш плідні наукові пошуки у галузі тваринництва розгорнулися під науково-методичним керівництвом НААН, які позначилися в розробленні основ біотехнології та збереження генофонду тварин, інтенсивному відтворенні поголів'я та спрямованому вирощуванні молодняку, фізіології зростання продуктивності, забезпеченні контролю якості продуктів і сировини тваринного походження та ін.

Ключові слова: *аграрна наука, сільськогосподарська дослідна справа, академічні установи, тваринництво.*

ОТРАСЛЕВЫЕ АКАДЕМИЧЕСКИЕ УЧРЕЖДЕНИЯ В СИСТЕМЕ НАУЧНОГО ОБЕСПЕЧЕНИЯ ЖИВОТНОВОДСТВА УКРАИНЫ

XX – НАЧАЛА XXI в.

Целью статьи является освещение этапов становления и развития аграрной науки на базе отраслевых академических учреждений Украины, осуществлявших научно-методическое руководство и координацию научных исследований, обобщение их научных поисков с учетом специфики отдельных отраслей агропромышленного комплекса, в частности животноводства. Методология исследования основана на комплексном использовании общенаучных, междисциплинарных и специальных исторических методов, а также разнообразной базы источников, основу которой составляют архивные документы. Научная новизна статьи заключается в сравнении программ деятельности и достижений отраслевых академических учреждений для нужд животноводства. Автором впервые раскрыто влияние различных организационных моделей отраслевой науки на результативность научных исследований по разведению и селекции, кормлению и содержанию сельскохозяйственных животных. Доказано, что организация академических учреждений открыла реальные возможности для поиска оптимальных путей сосуществования сельскохозяйственного исследовательского дела и высшего профессионального образования. Одновременно с изменением организационных форм отраслевой академической науки, пересматривались программы научных исследований. Под эгидой ВУАСХН в области животноводства решались проблемы метизации, гибридизации и акклиматизации скота, выведение новых пород и типов. На базе УАСХН системно поднимались вопросы совершенствования технологий искусственного осеменения скота, разработка основ сбалансированного кормления, интенсификации кормопроизводства. Южным отделением ВАСХНИЛ разрабатывались проблемы по изучению эффекта селекции, моделирование отбора животных по продуктивности, генетический анализ стад и др. Показано, что наиболее плодотворные научные исследования в области животноводства развернулись под научно-методическим руководством НААН, оразвившиеся в разработке основ биотехнологии и сохранения генофонда животных, интенсивном воспроизводстве поголовья и направленном выращивании молодняка, физиологии роста производительности, обеспечении контроля качества продуктов и сырья животного происхождения и др.

Ключевые слова: *аграрная наука, сельскохозяйственное опытное дело, академические учреждения, животноводство.*

In the course of Ukraine's historical progress, the agricultural branch has played the role of a leading sector, ensuring the stability of the national economic complex, competitiveness in the domestic and foreign markets, food security, and thus

contributing to the protection of health and development of the nation. At the present stage, marked by an active search for ways to increase the stability of the agro-industrial complex of the country, the study of organizational models of branch science, the development of agricultural research business and the spread of higher special education become especially relevant. Of equal interest are the studios for the study of the organization of scientific support of some branches of agriculture, in particular animal husbandry, the development of which is characterized by certain specificities related to the availability of appropriate material and technical base, state interest, etc. This determines the timely study of the scientific support of the agricultural sector by academic institutions, which over the past century have evolved under different systems of government, changing both their forms and program of activity.

On the basis of the historiographic analysis of the problem, a number of publications have been considered, which raise the issues of formation and development of scientific support for the agricultural sector in Ukraine. In particular, previous researchers have considered the basics of agricultural development and its state regulation in the context of socio-political transformations of the 20th – 21th centuries [10]. The origins of the formation of the state agrarian policy are revealed [9]. The main stages of reforming the agrarian-industrial complex of Ukraine are highlighted [1, 3]. The general regularities of the formation and development of agricultural research business, its evolutionary progress as a branch of knowledge and organization in the context of definition of concepts and state policy are considered [6].

The purpose of the work is to elucidate the basic organizational models of development of sectoral academic science in Ukraine, to substantiate the role of academic institutions in scientific and methodological guidance and coordination of branch scientific researches, to summarize its main achievements taking into account individual components of agro-industrial complex.

Modern agrarian science in Ukraine was formed as a result of long-term development of agricultural education and sectoral research, whose tasks were to find

effective ways to increase crop yields, productivity of breeds and types of farm animals, improve the quality and increase the quantity of agricultural production, etc. One of the major trends that have affected the development of agrarian science is its academization, which created real opportunities for finding optimal ways of coexistence of sectoral research and agrarian education, increasing the efficiency of scientific development, strengthening the relationship with production.

The prototype of the first sectoral academic structure was the Agricultural Scientific Committee of Ukraine (ASCU) headed by Academician V.I. Vernadskyi, founded by the Ministry of Land Affairs of the Ukrainian state on November 1st, 1918. Committee began work on the organization and coordination of scientific activities based on a combination of agricultural science and practice. In the conditions of collective forms of conducting business activities of the ASCU, it explored the processes of collectivization, improving the efficiency of agricultural production. In its composition zoological section with subordination to it zootechnical subsections was opened. It has put together some bureaus by category of livestock, including beekeeping, fisheries and others. In different years it was headed by O.V. Krivusha, P.F. Lavrenyuk, F. Yurkiv, and Yu.Z. Uman. In 1921 the All-Ukrainian Bureau of Experimental Agricultural Affairs, headed by B.M. Rozhestvenskyi. It is worth noting that at that time, the network of sectoral research institutions included 51 units, to coordinate its scientific activities in February 1923 approved the «Regulations on the management and conduct of agricultural research work in the Ukrainian SSR» [13].

Among the landmark organizational initiatives of this period are the regional organization of agricultural research work. Among the major achievements of the field of science, first of all, stand out proposed crop rotation systems for different types of soils for different regions, the first synthetic soil map of Ukraine, survey of the reclamation fund of the republic [10]. Methods for assessing the breeding value of animals by exterior, the theory of organization of breeding business, etc., have been developed for practical animal husbandry.

Among the shortcomings of the ASCU activities, above all, is the isolation from

the other agricultural structures of the Ukrainian SSR, that became one of the reasons for its transformation into the Scientific Advisory Council (SAC) of the Ukrainian People's Commissariat of Agriculture in accordance with the decision of the All-Ukrainian Central Executive Committee and SPC of the Ukrainian SSR on 28th January 1928. Its main its tasks are the organization and conduct of agricultural science, carried out under the slogans of industrialization, rationalization and socialization of the agricultural production sectors. Despite the short period of existence, the SAC scientists provided scientific support for the crop and livestock industries, justified the ways of agricultural zoning, intensification of industries, socialization and typing of production, etc. SAC through its members P.T. Lavrenyuk, M.F. Ivanov, O.V. Leontovych, V.P. Ustyantsev raised a wide range of issues regarding the improvement of the livestock industry, in particular, the improvement of animal productivity [3].

In our opinion, the main merit of the SAC is that at its level, the necessary documents were prepared to make a decision at the meeting of the SPC of the Ukrainian SSR on April 3rd, 1930 on the establishment of the first official branch academic institution – the All-Ukrainian Academy of Agricultural Sciences (AUAAS) in accordance with the resolution «On rural reconstruction affairs». In June 1931, the People's Commissariat of Land Affairs of the Ukrainian SSR approved the charter and structure of the Academy, as well as its president, Academician O.N. Sokolovskyi.

The Department of Animal Husbandry and Veterinary Medicine was headed by K.G. Martin, which includes specialists in the fields of animal husbandry, horse breeding, pig breeding, small livestock. Academy carried out its organizational activities through periodic convocations of plenums. For the development of animal husbandry, the first plenum, held on June 18th, 1931, became important. According to its decisions, major efforts were directed to the organization of large animal husbandry enterprises, the development of the theory of hybridization, genetics and breeding of cattle, the elaboration of feed standards and the establishment of feed [7].

In 1931, the Presidium of the AUAAS began the reconstruction of the research work of the entire network. According to the decision of the plenum of the Academy, which took place on February 17–20, 1932, instead of the three-stage system of its organization (institute, station and stronghold) a two-stage (institute, stronghold) was adopted. The middle link – the zonal station was liquidated, with one part of the existing zonal stations being reorganized into strong points and the other into all-Ukrainian branch research stations. Laboratory, analytical methods of research were improved, that ensured a more complete solution of the set tasks [3].

The AUAAS was the first among other sectoral academies in the country which formulated a thematic plan of research works, carrying out directions on 24 national economic tasks, within which it is planned to solve more than 400 key topics. Among the most significant achievements of the academic sectoral science of this period are the agro-inventory of soils and its large-scale liming, survey and mapping of the territories of all regions of Ukrainian lands, carried out by the All-Ukrainian Research Institute of Soil Science, and the development of the first scientific methods of breed creation by the All-Ukrainian Research Institute of the Acclimatization and Hybridization of Animals [3].

It is worth noting that during this period a fundamentally new format of functioning of the agricultural work was initiated on the basis of the development of the collective farm research work in accordance with the Resolution of the People's Commissariat of Land Affairs of the Ukrainian SSR of April 16th, 1934 «On the organization of collective farms' laboratories». In 1936, the All-Union Research Institute of Scientific Methods of Sowing in the system of the People's Commissariat of Land Affairs of the Ukrainian SSR, headed by D.Yu. Kamyshchenko was created to coordinate its activities. However, the desired result, in particular the planned increase in the productivity of plants and animals, has not been achieved on the basis of the introduction of a collective farm research work [5].

In the decision of the SPC of the Ukrainian SSR and the Central Committee of the Communist Party on September 29th, 1935, it was stated that the AUAAS had not fulfilled its tasks, and became mainly on the way of administration of research work.

After its elimination, the SPC of the Ukrainian SSR adopted on September 29th, 1935 the Resolution «On the state and tasks of research in agriculture», according to which the general management of sectoral research relied on the People's Commissar of Agriculture of the Ukrainian SSR. In order to coordinate sectoral research, a Scientific Council headed by L.L. Papernyi. In 1940 an organizational committee headed by M.O. Olshanskyi was approved on the resumption of work of the branch academy [3].

A new phase in the history of the academic science began after the end of World War II. Resolution of the SPC of the Ukrainian SSR and the Central Committee of the Communist Party In October 20th, 1945 the domestic agricultural research work was first officially presented in the system of the Academy of Sciences of the Ukrainian SSR through the Department of Agricultural Sciences headed by Academician M.M. Grishko. Academicians in the field of «agricultural sciences»: M. I. Vavilov, O. N. Sokolovskyi, O. V. Leontovich, A.O. Sapegin, V. M. Lyubimenko, D. K. Tretyakov, M. G. Holodnyi, K. K. Gedroyts were chosen. The decision was made to create a standing committee on animal husbandry, which included V. V. Matskevich, G. A. Kirichenko, P. D. Pshenichnyi, I. N. Romanenko, M. I. Savchenko, V. P. Tulchinska, B. G. Shmatok, O. Yu. Yatsenko. A well-known breeder scientist, full member of the Academy of Sciences of the Ukrainian SSR and Lenin All-Union Academy of Agrarian Sciences L.K. Greben headed the commission. In 1951, on the basis of the commission has formed the sector of animal husbandry, its main task was to improve the theory of farm animal breeding, physiology and biology of reproduction, etc. [4, p. 94–94].

It is worth noting that the activities of the department unfolded under conditions of massive attacks by the totalitarian regime of genetics and breeding, which left its mark on the deployment of research in the fields of plant and animal husbandry. In October 1948, an extended meeting of the Presidium of the Academy of Sciences of the Ukrainian SSR, devoted to the issues of biological science. By its decision, the heads of the departments of the agricultural and biological sciences, the full members of the Academy of Sciences of the Ukrainian SSR M. M. Grishko and

D. K. Tretiakov, the heads of departments of the Institute of Zoology, academician I. I. Shmalgauzen and professor S. M. Gershenzon were dismissed [3].

As shown by the analysis, during this period in the field of animal husbandry, the main attention was focused on the development of measures to improve the productivity of Black-and-White breed of cattle, the creation of breed groups of sheep and pigs for the Polissia region of the Ukrainian SSR, the development of scientific foundations for growing young animals, strengthening the forage base. Despite some advances in the work of the Department of Agricultural Sciences, the following shortcomings were noted: the lack of regular communication with the agricultural propaganda departments of the Ministry of Agriculture of the Ukrainian SSR on the implementation of scientific achievements in production, the lack of material support of experimental farms, the lack of specialization in animal science. In view of this, the Presidium of the Academy of Sciences of the Ukrainian SSR decided to consider the Department of Agricultural Sciences closed on June 15th, 1956, by the Resolution of the Central Committee of the Communist Party of Ukraine and the Council of Ministers of the Ukrainian SSR No. 524 of May 10th, 1956 «On measures to improve the work of research institutions on agriculture» [2].

According to the Decree No. 1556 of December 30th, 1956, the model of academization of the domestic agricultural experiment under the auspices of the Ukrainian Academy of Agricultural Sciences (UAAS) headed by Academician of the Academy of Sciences of the Ukrainian SSR P. A. Vlasiuk for the second time was implemented. In accordance with the decisions of the resolution, the regional organization for conducting sectoral research was restored. A significant difference between this academic model was the presence in its structure of an educational department for the training of agricultural professionals, the public election of the president and his deputies, as well as academics and correspondents of UAAS as a result of manifestations of democracy. Among the most significant achievements of UAAS in the field of crop production is the survey of soils of Ukraine in the area of 13.1 million hectares and the compilation of soil maps and recommendations for collective farms and 138 state farms [12, p. 1–3].

In the field of animal husbandry work was carried out on the following problems: increase in production of livestock products while reducing its cost; development of methods of accelerated reproduction and qualitative improvement of animals; physiological and biochemical foundations for improving the productivity of livestock, etc. Special attention was paid to the development of typical diets in the zones of the republic; the most rational methods and methods of intensive fattening of cattle in accordance with natural climatic and economic conditions; methods of purebred breeding and crossing. Work continued to develop theory and improve the organization of artificial insemination of farm animals [3].

Despite the real successes in the rapid introduction of everything progressive into production, UAAS is once again hostage to new political realities. As a result of the Resolution of the Central Committee of the Communist Party of Ukraine and the Council of Ministers of the Ukrainian SSR No. 487 of May 4th, 1962, it was once again liquidated with the further resumption of activities of the Department of Agricultural Sciences at the Academy of Sciences of the Ukrainian SSR [11, p. 1–2]. The activities of the department unfolded in accordance with the already tested scheme and continued until 1963 inclusive.

By the resolution of January 5th, 1970, Council of Ministers of the USSR established the Southern Department of Lenin All-Union Agricultural Academy as a scientific and methodological center for the management of scientific research in the field of agricultural production of the Ukrainian and Moldavian SSR. Its activity was carried out by sections and problematic coordination and methodological commissions consisting of: agronomy, forestry, animal husbandry and veterinary medicine, mechanization and electrification, economy and organization of agriculture, consolidated planning and coordination of research works. There were 39 problem commissions within the department, including 21 from agriculture and vegetation, 6 from animal husbandry and veterinary medicine, 6 from mechanization and electrification of agriculture, 6 from economics and organization of agriculture [3].

Thus, the section of animal husbandry and veterinary medicine was represented by: Y.A. Danilenko, F. F. Eisner, G. A. Bogdanov, L. K. Greben, A. L. Babak, V. K. Gavrish, I. M. Gladenko, M. F. Guliy, G. V. Zvereva, O. V. Kvasnitskyi and others. The scientists of the section completed research on predicting the effect of breeding, modeling the selection of animals by productivity, developing programs for genetic analysis of herds. The card system of genetic characterization of cattle herds, the basics of prospective breeding planning, as well as the method of using polymorphic systems to assess the degree of homogeneity of the gene pool of populations have been elaborated and tested. Creating of high-yielding breeds at interbreeding has started [2].

The Southern Department envisaged technical reconstruction and re-equipping of the agrarian sector, development of advanced machinery and technologies, new types of agricultural crops and breeds of animals, implementation of effective agro-technical and zootechnical measures, etc. However, developments of research institutes of economics, plant protection, agricultural microbiology, breeding work, animal husbandry of the Forest-Steppe and Polissia of the Ukrainian SSR, agriculture and animal husbandry of the Western regions of the Ukrainian SSR, vegetable growing, horticulture, Mykolaiv, Zaporyzhzhya, Sumy, Hmelnytsk state agricultural research stations were far behind the needs of production. The gaps in research planning, coordination, and logistics were slowly eradicated. As a result, the Southern Department of Lenin All-Union Agricultural Academy had little influence on the acceleration of scientific and technological progress in agriculture [9].

The Ukrainian Academy of Agrarian Sciences (UAAS) was established by the Council of Ministers of the Ukrainian SSR on September 22nd, 1990 to enhance the development of basic and applied research aimed at solving the food problem, further improving the scientific support of the agro-industrial complex. By the Presidential Decree of January 6th, 2010, it got national status.

Within the structure of the Academy there are six branch departments: 1) Agriculture, Land Reclamation and Mechanization; 2) Crop Production; 3) Animal Husbandry and Veterinary Medicine, 4) Zootechnics; 5) Agrarian Economy and

Food; and 6) Scientific Support for Innovative Development. In particular, the Department of Animal Husbandry and Veterinary Medicine was tasked with developing the issues of breeding, genetics, biotechnology and the conservation of the animal gene pool; livestock reproduction and breeding of young animals; the physiology of animal productivity growth; livestock production technologies; ensuring the quality control of products and raw materials of animal origin [3].

The organizational structure of the Academy has been constantly improved in order to increase the level of management of agrarian science, improve the coordination of researches and its methodological support. Thus, in 1996 the Academy introduced a new form of creative association of scientists of some areas of activity – scientific and methodological centers (SMC). In animal husbandry the following SMC were established: «Breeding and genetics of animals», «Technologies in animal husbandry», «Physiology and biochemistry of animals», «Pig breeding», «Beekeeping», «Silkworm» and others. Leading institutions of the corresponding profile were the organizational core around which the centers were formed. This form of cooperation of scientists made it possible to bring the scientific and methodological work of all institutions closer to the level of the main institutes, to introduce complex research, and to increase the level of scientific developments. Since 1998, regional centers of scientific support for agro-industrial production have been organized for more effective influence of agrarian science on the development of the industry, and in 2011 seven zone scientific and innovative centers were established.

At performing the fundamental scientific tasks of NAAS, ways of rational use of natural resources, scientific bases of agro-systems productive potential management were developed; genomes of plants and animals were studied; the newest methods to create new high-performance plants and animals with valuable human economic properties were used; the peculiarities of nutrition and metabolism in high-yielding genotypes of animals were elucidated; the evolutionary ecogeographical and epizootological patterns of the circulation of infectious diseases of animals were studied, etc.

Applied research of NAAS scientific institutions is aimed at the development of the latest technologies for the protection, reproduction and increase of soil fertility; technical means of ecological use of water resources; technologies of production of organic plant products; resource-saving technologies for production and deep processing of crop and livestock products; improvement of existing genotypes of animals; methods of monitoring the safety of livestock products; highly effective means of diagnosis, prevention and treatment of diseases; regulatory and methodological support for innovative development of agro-industrial complex industries, etc.

The international activity of the NAAS has intensified, its scientists are members of more than 100 European and world international organizations, centers, societies, associations. This is, in particular, the European Technology Platform FOOD for LIFE; The European Biosafety Association; International Bank for Genetic Resources; International Union of Soil Scientists; International Center for Soil Research; International Academy of Environmental Sciences and Life Safety; European Association for Research on Plant Breeding; International Livestock Association, etc. NAAS institutions cooperate with profile institutions, organizations and companies from 35-55 countries; carry out more than 300 joint projects, of which 20 or more are grants.

Today, the following problems remain unresolved: the incompleteness of agrarian reform; imbalance of the market and organization of production; shortage of working capital; insufficient investment. The time has come for the next stage of reforming the agricultural sector of the economy, mainly generated by academic science, with the new tasks, that requires the NAAS to update the forms and content of scientific work. It is essentially about reforming scientific support. The Ministry of Agrarian Policy and Food of Ukraine, together with the NAAS, administer the independent country's agro-industrial complex, expressing its conviction that the agrarian potential of the country can not only guarantee its food security, but Ukraine can become one of the leading players in the global food market [3].

Conclusions. Modern agrarian science in Ukraine was formed as a result of long-term development of agricultural education and sectoral research, whose task was to find effective ways to increase crop yields, animal productivity, etc. Scientific support of the agro-industrial complex of Ukraine was carried out by branch research institutions and higher educational establishments. Scientific and methodological guidance and coordination of sectoral research relied on the academic institutions, the creation of which opened real opportunities for finding optimal ways of coexistence of sectoral research and agrarian education, increasing the efficiency of scientific developments. Throughout the nearly 90-year history of the formation and development of the academic branch science, it has been changing forms of existence that have given rise to existing problems of political leadership.

The prototype of the first sectoral academic structure was founded in 1918 ASCU, transformed in 1928 into the SAC of the Ukrainian People's Commissariat of Agriculture of the Ukraine. The academicization of the branch science was carried out under the auspices of the AUAAS (1931–1935), the Department of Agricultural Sciences of the Academy of Sciences of the Ukrainian SSR (1945–1956, 1962–1963), the UAAS (1956–1962), the Southern Department of Lenin All-Union Agricultural Academy (1969–1990). At the same time, with the change of organizational models of the branch academic science, scientific researches were refined. In the field of animal husbandry, under the auspices of the AUAAS, the problems of metallization, hybridization and acclimatization of cattle, creation of new breeds and types were solved. On the basis of UAAS for the first time systematically raised the issues of improving technologies of artificial insemination of cattle, development of the basics of balanced feeding, intensification of forage production. The Southern Department of Lenin All-Union Agricultural Academy developed problems of studying the effect of breeding, modeling the selection of animals for productivity, genetic analysis of herds, the use of polymorphic systems to assess the degree of homogeneity of the gene pool of populations, and others. The most fruitful scientific research in the field of animal husbandry was launched under the auspices of the National Academy of Agrarian Sciences of Ukraine, which affected the

development of the fundamentals of biotechnology and conservation of animal gene pool, intensive livestock rearing and directional rearing, the physiology of growth of farm productivity, ensuring the quality of livestock and raw materials.

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