

Annotation of compulsory educational component

Subject	Innovative technologies for the production of stockbreeding products
Lecturer	Lutsenko Mariia Mykhailivna Doctor of agricultural sciences, The Head of the Department of Milk and Meat Production Technology
Course and semester in which it is planned to study the discipline	5th year, 2nd semester
Faculties whose postgraduates are invited to study the discipline	Biology and Technology Faculty
A list of competences and relevant learning results provided by the discipline	<p>According to the requirements of the educational and professional program "Technology of production and processing of livestock products", applicants have to acquire the ability to acquire the following competencies:</p> <p>GC 1. Ability to think abstractly, analyze and synthesize.</p> <p>GC 2. Ability to conduct researches at the appropriate level.</p> <p>GC 3. Ability to learn and master modern knowledge.</p> <p>GC 4. Skills in using information and communication technologies.</p> <p>GC 7. Ability to plan, organize and conduct scientific research, process, publish and patent their results;</p> <p>PC 2. Knowledge of the basic technologies, procurement and storage of fodder, application of the latest technologies of preparation for feeding;</p> <p>PC 3. The ability to apply basic knowledge of the organization of technological processes in the production and processing of stockbreeding products;</p> <p>PC 4. The ability to use professional knowledge and practical skills to ensure the implementation of hygienic, veterinary sanitary and preventive measures at farms and other facilities for the production and processing of livestock products and the preservation of animals' health.</p> <p>PC 5. The ability to carry out organizational measures for the production of stockbreeding products, solution of practical tasks dealing with professional activity, basics of business communication and work with a team.</p> <p>PC 10. Ability to characterize biological and technological processes using specialized software tools;</p> <p>The result of learning this discipline is the acquisition by a higher education students of such knowledge and skills:</p> <ul style="list-style-type: none"> - to know the parameters and control technological processes for the production of milk and beef; - to know the main resource-saving technologies of

	<p>milk and beef production;</p> <ul style="list-style-type: none"> - to know the systems and methods of keeping agricultural animals and control and optimize the microclimate of technological premises; - to know the parameters and carry out technological control of modern technologies for the production and processing of stockbreeding products; - be able to form dairy herds for modern dairy farms and grouping of cows; - be able to implement modern methods of managing the technological processes of milk and beef production in various farms.
Description of the discipline	
<p>Previous conditions which are necessary for the study of the discipline</p>	<p>The compulsory academic discipline "Innovative technologies for the production of livestock products" is based on the knowledge of such disciplines as "Modeling of technological processes in animal husbandry", "Organization and management of beef production on modern farms", "Biology of productivity of agricultural animals", "Program management processes in the field" studied at the master's level of training.</p>
<p>The maximum number of graduate students who can study at the same time</p>	<p>70 students</p>
<p>Classroom topics</p>	<p>Topics of lectures:</p> <ol style="list-style-type: none"> 1. Biological, technological and technical aspects of the development of innovative technologies for the production of livestock products. 2. The main initial criteria for the creation of modern farms of a new generation. 3. General concepts about resource-saving technologies of milk and beef production. 4. Volume-planning and technological solutions of new generation livestock farms with resource-saving ones production technologies. 5. Reconstruction of existing premises, as one of the ways of introducing innovative milk and beef production technologies. 6. Main breeds of dairy herds. 7. Systems of formation of dairy herds for modern dairy farms and grouping of cows. 8. Systems of keeping highly productive herds. 9. Feeding cows of different physiological conditions and young animals under the conditions of innovative technologies. 10. Modern machines and equipment for procurement, storage, preparation and distribution of fodder. 11. Physiology of lactation.

	<p>12. Mechanization of cow milking under conditions of innovative technologies.</p> <p>13. Types of milking installations and milking technologies on them.</p> <p>14. Composition and nutritional qualities of milk and obtaining its high quality.</p> <p>15. Primary milk processing.</p> <p>16. Processing of farm production waste at biogas plants.</p> <p>Topics of practical classes:</p> <p>1. Studying and generalization of systems to keep cows on farms of various typical sizes.</p> <p>2. Calculation of the optimal herd structure and planning of livestock movement on farms of various typical sizes.</p> <p>3. Formation and placement of different age and physiological groups on farms of various sizes.</p> <p>4. Development of design and technological solutions for the reconstruction of existing livestock premises for resource-saving milk production technologies.</p> <p>5. To develop design and technological solutions for the reconstruction of premises with a width of 12, 21 and 24 m.</p> <p>6. Familiarization with the herd of dairy breeds that are currently used at modern farms.</p> <p>7. Methodology and practice of forming a dairy herd of 500 cows (Livestock movement). 2. Determination of the herd structure of dairy farms for 500 and 1000 cows.</p> <p>8. Calculate the need for fodder and sowing areas for farms with 500 and 1000 cows.</p> <p>9. Familiarization with harvesting and storage technologies of various types of fodder at modern farms.</p> <p>10. Studying the technology of milking cows in milking parlors on installations such as "Parallel", "Carousel", "Yalynka" and using of robotic milking systems.</p> <p>11. Determination of milk quality when using different milking systems.</p> <p>12. Traditional technologies of beef production at farms of various typical sizes.</p> <p>13. To develop a plan for the movement of livestock at specialized farms with beef production.</p> <p>14. Development of new volumetric planning and technological solutions for farms with resource-saving beef production technologies. Creation of fattening farms in peasant farms.</p>
Language of teaching	Ukrainian