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## INSTRUMENTS OF REGULATING OF BRANCH OF GOAT FARMING IN THE CONDITIONS OF THE FOOD CHALLENGES

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**Abstract.** The article investigates the measures and identifies the possibilities of branch of goat farming in the conditions of the food challenge. The article substantiates that the agrarian sector of Ukraine is developing in the conditions of food challenges of world globalization processes. It is stated that the goat farming entities established in recent years operate on the basis of international standards of food quality and safety and have the status of innovative for domestic animal husbandry. It is proved that the raw materials of Ukraine open the opportunity to develop competitive and export-oriented production of food, in particular goat production, provided that the instruments of state regulation are consistent with the practice of world economic leaders of super state formations. Measures have been identified and instruments of goat industry regulation have been identified and modern aspects of development of innovative goat business entities have been generalized. The basic principles of functioning of the goat industry in the conditions of implementation of the European standards of quality and safety of foodstuffs are formed. Emphasis is placed on the fact that the development of the domestic agrarian sector is characterized by the investment attractiveness of the agricultural sector. It is established that the effective functioning depends on the optimal combination of control

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*instruments. The formation and development of the goat production industry in Ukraine requires the improvement of existing regulatory tools for structural European integration transformation in order to eliminate non-tariff barriers to the movement of goods and to develop the industry to reach a competitive level.*

*It is proposed to create favorable conditions for regulating the development of the agrarian sector in the context of goat farming in Ukraine in accordance with the instruments of European standards, which are obligatory for the examination of export-oriented economic entities by the independent Directorate General of the European Union for Health and Safety consumers (DG SANTE). It is concluded that the proposed improvement of regulatory instruments in order to secure the industry at a competitive level will contribute to the development of goat farming in the face of food challenges.*

**Keywords:** *regulation, tools, demand, industry, goat farming, euro-integration, supply, certification, traceability, food.*

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### ***Urgency of the research.***

Goat farming in Ukraine is developing rapidly in the time when Ukraine's economy is integrating in Europe and the organization and economic mechanism of an agrarian sector is being restructured. The enterprises which have been set up in recent years function to meet international standards of food quality and safety and are novel for national animal industry. Ukraine's feedstock resources provide with an opportunity to develop a competitive and export-oriented production of goat products when the state regulation is up to European principle of traceability.

### ***Actual scientific researches and issues analysis.***

Ukrainian and foreign scientists such as V. Halushko [4], S. Kvasha [7], O. Mohylnyi [10], G. Ternep [5], B. Hai [2] and others studied the instruments of the regulation of goat branch to tackle the global food crisis and in terms of European integration transformations. The earlier researches are mostly carried out in the area of general development of livestock breeding. Thus, the regulation of the devel-

opment of goat farming in Ukraine needs a thorough study as it is a promising branch of economy which is developing rapidly. The research objectives are to study the instruments of the regulation of the development of innovative subjects of farming in the area of goat industry and to formulate the principles of functioning goat branch in the time of implementing European standards of food quality and safety.

**Target setting.** The regulation of goat farming in the times of global challenges needs aligning national legal standards and rules with European legislature. Goat farming is a rather inviting branch for investors. However, the current regulatory instrument should be transformed structurally to eliminate non-tariff obstacles of national food.

### ***Research materials and methods.***

The study is based on historical, logical, economic, statistical and monographic methods of research.

### ***The research objective.***

An agrarian sector of economy is regulated by the instruments of state and market influence. Here, we can speak

about taxes, subsidies, interventions, administrative limits and permission, tariff quotas, standards, etc. We strongly believe that the instrument of standardization of conditions of the production process needs developing as it is an object of an economic transformation in the branch of goat industry for it to be more competitive.

The economic prosperity and the enhancement of life quality of well-developed countries of the world depend on innovation activities of the subjects of management. It, in its turn, depends on economic and scientific and technical potential of the country, its regulatory policy and resources. At an enterprise this innovation activity depends on the choice of the strategy and management, flexibility of production systems and resources utilization.

Innovation activity of subjects of management in the area of goat farming is performed due to the processes of aim-oriented work in order to create, to produce and to promote food, technological and organization and management novelties. It demands changing the content and the structure of means of the production (it will improve main funds and working assets), professional and qualification structure of employees of an enterprise.

Between 2015 and 2018 the branch of goat farming is rapidly developing and increases the amount of produced products. As food products are produced in accordance with modern international standards of food quality and safety, they can be treated as innovative. The researches which have been conducted showed that among the top innovative enterprise of Ukraine which produce goat products there are such farms as: «Tetiana 2011» (TM «Zinka»), the village of Usivka, Zguriivskyi district. They grow 900 goat

with further increase the number of goats to reach 2,500 – 3,000 goats; «Lukachivka-Eko», having 200 goats, the village of Vilhovets, Bohuslav district and «Rubchenetska krasunia», having 2,000 goats, the village of Yablunivka, Makariv district. The latter started to function in 2017. Among other farms in Ukraine we can mention «Shevret», «Babyni kozy», «Dobra ferma», «Medvyn». But these farms are not enough to satisfy the needs of national product market. That is why Ukraine exports goat products a lot. However, domestic demand for goat products encourages the appearance of powerful enterprises, which should be built and organized in a strict accordance with Ukraine's regulatory determinant. The method of regulating the functioning of farms in the area of goat production has changed since 2017. Law of Ukraine «On Introducing Changes to Certain Legislative Acts of Ukraine to Improve Activities of City Building» on 17.01.17 № 1817-VIII, which started to work on 10.06.2017 states one's administrative responsibility for violating the requirements of legislation, building codes, standards and rules during the construction. Law of Ukraine «On Evaluation of Effect on Environment» on 23.05.17 № 2059-VIII demands documents which fix the effect on environment to be included into a set of project documents from those who plan to produce goat products due to the fact that these refer to the second category of planning activity having a significant effect on environment.

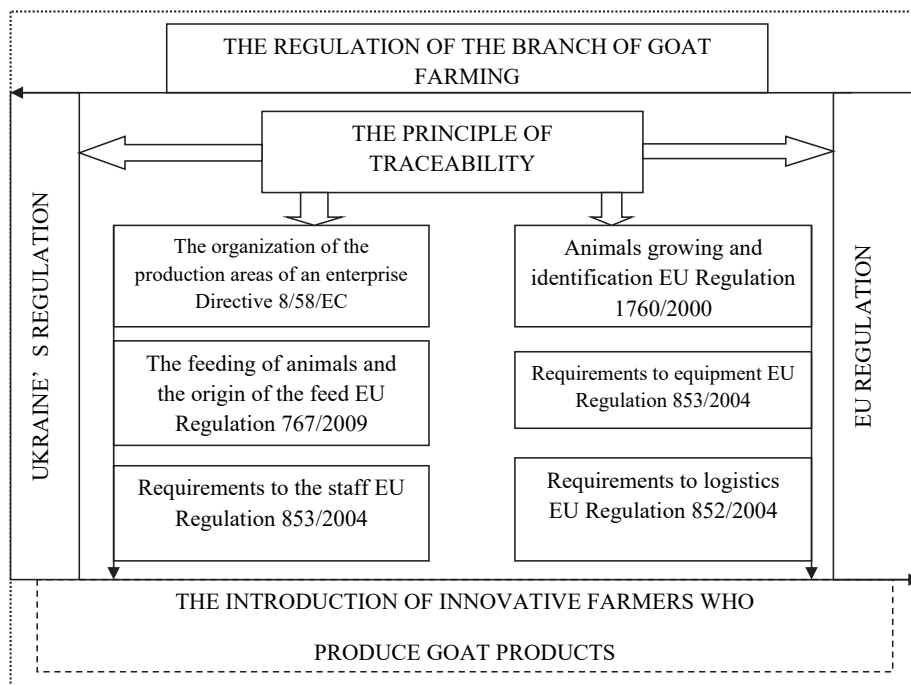
Challenges which an agrarian sector of economy faces urged the appearance of innovation enterprises in Ukraine. These positive steps supported a successful report of inspectors of Food and Veterinary Office (FVO) of Directorate-General for Health and Food Safety (DG SANTE) in 2016. As

a result, Euro Commission included Ukraine into the list of countries which are permitted to export dairy products to Europe. These are enterprises which passed an independent examination of quality standards (Pic.1.).

Therefore, this shows that main general requirements to an enterprise are conforming to the principle of traceability. According to Article 18 of EU Regulation 178/2002, a farmer who works in the field of the production of goat products can trace the produced products after they are sold. The information about the movements of products should be available on request of EU inspectors of according part III, Annex I, US regulation 852/2004.

It is obligatory to work out and use fundamental instruments of the regulation of the functioning of an enterprise such as the requirements of the manage-

ment of production and non-production areas according to Directive 98/58/EU; animals growing and identification according to Regulation EU 1760/2000; the feed production and animal feeding according to Directive 98/58/EU; the requirements to the building of a farm, the hygiene of the staff and milk preservation Regulation EU 853/2004; the electronic registration of the feed and its origin, veterinary drugs, cases of animal diseases; the registration of biological assets of animals arrival and birth, the results of laboratory tests of animal health at an enterprise. All this is necessary for an innovative and export-oriented enterprise to function. If Ukraine conforms to international rules and modifies national regulation instruments, it will become possible to make Ukraine's branch of goat farming more competitive at the import market.



**Figure 1. Instruments to regulate the branch of goat farming**

To evaluate the functioning of an innovative farming enterprise in Ukraine we use a straight-line correlation and a mathematical model:

$$y = a^0 + a^1 x,$$

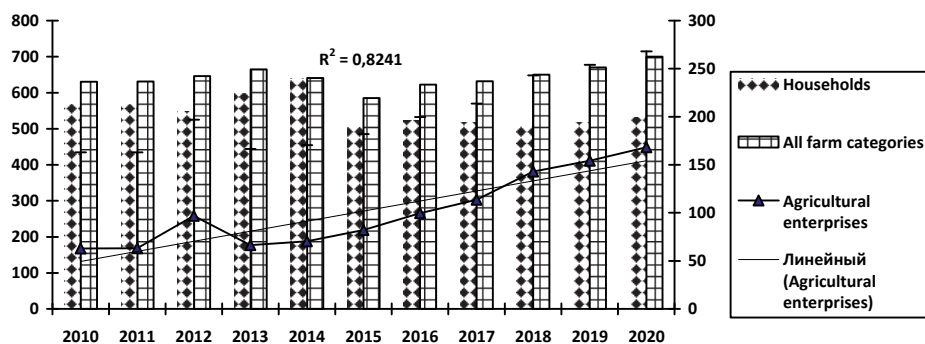
$y$  – is theoretical values of an effective feature (the introduction of international standards of food quality and safety in Ukraine);  $a^0$  – is the starting point;  $a^1$  – is a coefficient of regression (it shows how an effective feature changes when a factor feature changes by one);  $x$  – is a value of a factor feature (here it is gross production of goat farming in Ukraine). Thus, taking into consideration the instrument of standardization of the production and processing of goat products to get quality and safe food which is used in Ukraine, it is possible to make a prediction that the number of goats will increase. This is likely to develop the ability of Ukrainians to provide themselves with all necessary due to the increase of the number of highly productive goats at agricultural enterprises (Pic. 2).

Pic. 2 gives information about the density of goats at Ukrainian enterprises between 2010 and 2017. However, the application of the suggested regulation instruments in the branch of goat farming is likely to enlarge the number of farmers

in this area, it will, in its turn, promote the import of high-quality breeds of goat for further reproduction in Ukraine. The current management of goat farming is limited due to the differences between legislature of Ukraine and EU, in particular, in the issue of transporting milk from a milking to a processing farm. Sanitary rules which act in Ukraine make it impossible to support sanitation during the process of double pumping of milk, first into a milk tank vehicle and then into a milking tube of a processing plant. This is a main obstacle to start the production of national baby food from goat milk. In well-developed countries the transportation of milk from a milking to a processing plant is done by pipelines without any access to air. The development and approval of modern rules of technological projects on the basis of international standards opens up the possibility to produce baby food which is a crucial issue of food safety of Ukraine.

### Conclusions.

Therefore, an agrarian sector of Ukraine is developing in the times of global processes which face various challenges. The enterprises which have



**Pic. 2. The prediction of the development of farmers in the sphere of goat products production when it is impacted by regulation instruments**

been set up in recent years function on the principles of international standards of food quality and safety and are novel for Ukrainian animal production and livestock breeding. Feedstock supply of Ukraine provides with an opportunity to develop a competitive and export-oriented production of food, in particular goat products if instruments of state regulation. The regulation of an agrarian sector to develop goat farming of Ukraine is obligatory to meet European standards and to get a certification from DGSANTE which is responsible for the EU Commission's policies on health and food safety by those farmers who plan to export their products.

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**Вдовенко Н.М., Грищенко Н.П., Марченко І.О. (2019). ІНСТРУМЕНТИ РЕГУЛЮВАННЯ ГАЛУЗІ КОЗІВНИЦТВА В УМОВАХ ПРОДОВОЛЬЧИХ ВИКЛИКІВ. БІОЕКОНОМІКА ТА АГРАРНИЙ БІЗНЕС, 10(2): 20-28. <http://doi.org/10.31548/bioeconomy2019.02.020>.**

**Анотація.** У статті обґрунтовано, що аграрний сектор України розвивається в умовах продовольчих викликів світових глобалізаційних процесів. Вказано, що створені в останні роки суб'єкти господарювання у галузі козівництва функціонують на засадах міжнародних стандартів якості та безпечності харчових продуктів і мають статус інноваційних для вітчизняного тваринництва. Доведено, що сировинні ресурси України відкривають можливість розвивати конкурентоспроможне та експортоорієнтоване виробництво продовольства, зокрема продукції козівництва за умови відповідності інструментів державного регулювання практиці світових економічних лідерів наддержавних формувань. Розкрито заходи та виокремлено інструменти регулювання галузі козівництва та узагальнено сучасні аспекти розвитку інноваційних суб'єктів господарювання в галузі козівництва. Сформовано основні принципи функціонування галузі козівництва в умовах впровадження європейських стандартів якості та безпечності харчових продуктів. Зроблено наголос на те, що розвиток вітчизняного аграрного сектору характеризується інвестиційною привабливістю сільськогосподарської галузі. Встановлено, що ефективне функціонування залежить від оптимального комбінування інструментів регулювання. Становлення і розвиток індустрії виробництва продукції козівництва в Україні потребує вдосконалення існуючого регуляторного інструментарію для структурної трансформації з метою усунення нетарифних бар'єрів руху товарів та становлення галузі козівництва для досягнення конкурентного рівня.

Запропоновано створити сприятливі умови для забезпечення регулювання розвитку аграрного сектору у розрізі козівництва в Україні відповідно до інструментів європейських стандартів, що є обов'язковими для проходження експертизи суб'єктами господарювання з боку незалежного Генерального директорату Європейського Союзу з питань охорони здоров'я та захисту прав споживачів (DG SANTE). Зроблено висновок, що запропоноване удосконалення інструментів регулювання з метою закріплення галузі на конкурентному рівні сприятиме розвитку козівництва в умовах продовольчих викликів.

**Ключові слова:** регулювання, інструменти, попит, галузь, козівництво, євроінтеграція, пропозиція, сертифікація, простежуваність, продовольство.

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**Н. Вдовенко, Н. Грищенко, І. Марченко (2019). ИНСТРУМЕНТЫ РЕГУЛИРОВАНИЯ ОТРАСЛИ КОЗОВОДСТВА В УСЛОВИЯХ ПРОДОВОЛЬСТВЕННЫХ ВЫЗОВОВ. БИОЕКОНОМИКА ТА АГРАРНИЙ БІЗНЕС, 10(2): 20-28. <http://doi.org/10.31548/bioeconomy2019.02.020>.**

**Аннотація.** В статье обосновано, что аграрный сектор Украины развивается в условиях продовольственных вызовов и мировых глобализационных процессов. Указано, что созданные в последние годы субъекты хозяйствования в отрасли козоводства функционируют на основе международных стандартов качества и безопасности пищевых продуктов, имеют статус инновационных для отечественного животноводства. Доказано, что сырьевые ресурсы Украины открывают возможность развивать конкурентоспособное производство продовольствия, в частности продукции козоводства при условии соответствия инструментов государственного регулирования практике мировых экономических лидеров надгосударственных формирований. Раскрыты меры и выделены инструменты регулирования отрасли козоводства и обобщены современные аспекты развития инновационных субъектов хозяйствования в области козоводства. Сформиро-



ваны основные принципы функционирования отрасли козоводства в условиях внедрения европейских стандартов качества и безопасности пищевых продуктов. Определено, что развитие отечественного аграрного сектора характеризуется инвестиционной привлекательностью сельскохозяйственной отрасли. Установлено, что эффективное функционирование зависит от оптимального комбинирования инструментов регулирования. Становление и развитие индустрии производства продукции козоводства в Украине требует совершенствования существующего регуляторного инструментария для структурной трансформации с целью устранения нетарифных барьеров движения товаров и становления конкурентоспособной отрасли экономики.

Предложено создать благоприятные условия для обеспечения регулирования развития аграрного сектора в сфере козоводства в Украине. Необходимо следовать в соответствии с европейскими стандартами, что являются обязательными для прохождения экспертизы субъектами хозяйствования со стороны независимого Генерального директората Европейского Союза по вопросам здравоохранения и защиты прав потребителей. Сделан вывод, что предлагаемые направления совершенствования инструментов регулирования с целью закрепления отрасли на конкурентном уровне будет способствовать развитию козоводства в условиях продовольственных вызовов.

**Ключевые слова:** регулирования, инструменты, спрос, отрасль, козоводство, евроинтеграция, предложение, сертификация, прослеживаемость, продовольствие.

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