

I.В. ПЕТРИЧЕНКО*(Інститут кормів та сільського господарства Поділля
Національної академії аграрних наук України, м. Вінниця, Україна)*

Економічне значення, особливості та проблеми становлення ринку кормів в Україні

Відповідно до Державної цільової програми розвитку українського села на період до 2015 року, планується значно збільшити виробництво продукції тваринництва, що неможливо досягти без ефективного функціонування галузі кормовиробництва і розвинутого ринку кормів.

Стаття присвячена дослідженню теоретичних та прикладних аспектів розвитку вітчизняного ринку кормів. Здійснено аналіз витрати кормів усіх видів на виробництво одиниці продукції тваринництва та у розрахунку на одну умовну голову великої худоби. Оцінено сучасний стан галузі кормовиробництва та встановлено тенденції її подальшого розвитку. Розкрито вплив інституційних факторів на формування тенденцій розвитку галузі. Запропоновано механізми подальшого стимулювання розвитку ринку кормів за рахунок створення законодавчого підґрунтя, продовження гармонізації вітчизняної системи стандартизації та сертифікації продукції галузі кормовиробництва у відповідності до міжнародних і європейських вимог, посилення інвестиційно-інноваційного базису цього сектору.

Ключові слова: витрати кормів, кормовиробництво, ринок, прогноз, інституціональне середовище.

I.В. ПЕТРИЧЕНКО*(Інститут кормів і сільського господарства Подолья
Національної академії аграрних наук України, г. Вінниця, Україна)*

Экономическое значение, особенности и проблемы становления рынка кормов в Украине

Согласно Государственной целевой программы развития украинского села на период до 2015 года, планируется значительно увеличить производство продукции животноводства, что невозможно достичь без эффективного функционирования отрасли кормопроизводства и развитого рынка кормов.

Статья посвящена исследованию теоретических и прикладных аспектов развития отечественного рынка кормов. Осуществлен анализ расхода кормов всех видов на производство единицы продукции животноводства и в расчете на одну условную голову крупного скота. Оценено современное состояние отрасли кормопроизводства и установлено тенденции дальнейшего ее развития. Раскрыто влияние институциональных факторов на формирование тенденций развития отрасли. Предложены механизмы дальнейшего стимулирования развития рынка кормов за счет создания законодательной базы, продолжение гармонизации отечественной системы стандартизации и сертификации продукции отрасли кормопроизводства в соответствии с международными и европейскими требованиями, усиление инвестиционно-инновационного базиса этого сектора аграрного производства.

Ключевые слова: расходы кормов, кормопроизводство, рынок, прогноз, институциональная среда.

I.V. PETRYCHENKO*(Institute of Forages and Agriculture of Podillya, Vinnytsia, Ukraine)*

Economic Value, Specifics and Problems of Fodder Market in Ukraine

According to the state target program of development of the Ukrainian village for the period up to 2015 it is intended to significantly increase the livestock production that cannot be achieved without effective functioning of fodder production industry and feeding-stuff market development.

The article covers the theoretical and applied aspects of national fodder market development. The analysis of all types of fodder consumption per unit of livestock production calculated on one standard cattle unit head of cattle has

been carried out. The current state of the feeding-stuff has been assessed and trends further development set. The impact of institutional factors on the trends in the industry has been identified. The mechanisms of further promotion of fodder market development through the establishing of the regulatory base have been proposed, further harmonization has been substantiated within national product standardization and certification of the fodder in compliance with the international and European standards, strengthening the investment and innovation base in this sector of agricultural production has been outlined.

Keywords: *fodder cost, fodder, market forecast, institutional environment.*

Determination of issue. Under global food challenges, the role of agriculture food markets as one of the most important in the field of material production and food security increases. The escalation of issues of food supply affects all segments of the market, which in its turn, is a reflection of national interests, supply and demand, and price policies in all segments. Among the set of agriculture food, one of the most important places obtains fodder market, since the value of feed, fodder for the agricultural economy is extraordinary due to the fact that efficiency, safety, and quality of the industry depends on the current state and the revival of livestock. According to the National Program of Ukraine for Development of Rural Areas until 2015, which plans significant increase of the production of animal husbandry products, which would require an increase in the fodder production almost in double [7, p. 3-58]. These peculiarities led to the selection of research topic, its logic and structure.

Analysis of recent researches. The issues of food markets were investigated by V. Andriichuk, V. Boyko, P. Haidutskyi, P. Sabliuk, L. Khudoliy, A. Shpychak. The basis of their work laid the issue of forming the agricultural market and improving the economic mechanism of its functioning. Theoretical, methodological and practical basis of the feed devoted to the work Mr. Berezovskyi, I. Bondarchuk, V. Viun, I. Grabchuk, V. Gryshko, V. Dolinskyi, A. Iermakov, M. Karaman, I. Kishchak, P. Krop, M. Kulish, L. Marmul, L. Pavlovskyi, V. Pereguda, A. Poberezhnyi, D. Prykhodko, V. Slavov, Ia. Sybal, I. Topikha, A. Khodakivskyi, G. Cherevka and some other scientists agricultural economists. The issue of resource support the feed is covered in works of V. Berdnikov, D. Gluschenko, P. Kaninskyi, V. Ryzhkov and others. However, the sectoral breakdown problems identifying the conceptual apparatus, determining the nature and market establishment of forage in terms of global challenges require further research. The issues of formation of market of competitive products and aft of the feed and not displayed synthesis interests of market systems: government, manufacturers, infrastructure and business customers. It outlines the problems caused for the selection of research topic, its logic, structure and methodological tools.

The goal study is to determine the determinants of the market, its definition and study prospects in terms of global food challenges.

Main material. Food market is a component of the national economy, in the narrow sense, acts as a sphere of commodity exchange proposals and effective demand. In

a broad sense, it includes production and consumption, producers of all legal forms of ownership and economic activity associated with food production or any other market transactions with food products, including the sale of goods, labor force, technical and technological service, infrastructure maintenance, implementation of capitalization and so on. Significant place takes special government agencies designed to regulate all social and economic sectors and to create an organizational and economic mechanism of functioning. Leading role among the subjects of market infrastructure is given to special governmental institutions such as the Anti-Monopoly Committee, inspection of price controls and so on. Therefore, in the general sense of the term "market" is considered as a system of commodity-money relations, subject to the laws of commodity production. The relations arising from the interaction between producers and consumers can be characterized as certain of market mechanism.

According to I. Kischak, feed market is a system of economic relations that arise between its subjects during the production, storage, marketing process and the use of feed on the principles of free competition, choice areas of sales and pricing, and government control over the quality of feed and storage [2].

N. Zelisko divided the a number of factors that necessitate functioning of the feed, namely economic unreasonableness own fodder production along with the ability to purchase the cheapest food resources in the market as the cost of feed production on the farm exceeds the cost of their purchase, even taking into account the costs of transportation, the need in determining the price of certain types of feed or food resources, if the economy does not engage in animal husbandry, inability to provide the needs of their own feed production due to limited financial, human and land resources, especially in households and farms, which mainly produce marketable crop production, natural environmental conditions that influence the supply of feed for production (soil fertility, inability to forage) [1]. It should be noted that Ukraine is in the third grade and non-grade refers third quarter and hay silage, in addition, often the loss of nutrients in the procurement and storage of feed, reach 40 ... 50 percent [4]. These disappointing findings suggest that the currently observed low quality fodders, which in its turn leads to significant cost overruns. The cost analysis of all types of feed per unit of output and per conventional head herd made in Table 1, as well as, built cost estimates of feed for cattle and poultry on the basis of statistical collection "Animal Husbandry in Ukraine" in Table 2 using regression analysis.

Fodder costs of all types for the production of unit of products and in calculation of one unit of cattle and fodder units

Index	Year							1990 to 2012, %
	1990	1995	2000	2005	2010	2011	2012	
1	2	3	4	5	6	7	8	8/2*100
In companies of all types								
For 1 quintal of cattle increase	11,73	13,65	8,88	9,94	10,98	10,73	11,17	95
For 1 quintal of pig increase	7,92	10,59	9,05	8,25	7,26	7,06	6,82	86
For 1 quintal of milk production	1,41	1,57	1,33	1,04	1,02	1,01	0,98	70
For 1 conditional cattle unit	32,5	30,29	29,63	32,42	31,01	30,87	31,35	96
Agriculture companies								
For 1 quintal of cattle increase	13,53	18,6	16,73	15,89	15,69	14,98	15,52	115
For 1 quintal of pig increase	9,85	18,51	17,9	8,97	5,98	5,37	5,39	55
For 1 quintal of milk production	1,47	1,77	1,63	1,31	1,8	1,16	1,09	74
For 1 conditional cattle unit	32,5	29,04	25,51	30,15	26,73	25,99	26,78	82
People's farming								
For 1 quintal of cattle increase	6,28	5,63	5,05	7,64	9,2	9,14	9,61	153
For 1 quintal of pig increase	5,78	7,71	7,62	7,98	8,31	8,67	8,13	141
For 1 quintal of milk production	1,23	1,32	1,21	0,98	0,98	0,97	0,95	77
For 1 conditional cattle unit	31,39	32,72	32,87	33,59	33,97	34,31	34,6	110

Sources: formed on the basis of [12].

It is necessary to improve the efficiency of fodder production in Ukraine, which in its turn, will increase forage production and may have resulted in multi-directional effects such as: material - an increase of feed, thus increasing livestock in livestock social - creating new jobs in fodder, money - getting a larger amount of revenue from the sale of food (or animal products will ultimately feed processing). Improving the efficiency of feed processing means that each unit costs and applicable resources receive more feed and income. This is of great importance for the entire national economy and for each agricultural enterprise and population.

First, the less work and resources expended per unit of production, the more you can get for the same mass that will enable lower prices. Therefore, improving the efficiency increases forage production and better meet the needs of livestock. Second, the efficiency of forage production directly affects the level of retail prices for some food and consumer goods made from animal products (meat and dairy products, eggs, wool, leather). Because the price level is closely associated with socially necessary costs of production. Increase efficiency and reduce the cost of creating the conditions for lower retail prices in the market.

Third, improve the efficiency of forage production associated with a higher income and profitability of agricultural enterprises. The more they produce and sell feed, the cheaper they cost domestic production of feed, the higher their income, the more money they can dedicate to the development of agricultural production, raise wages and improve social conditions. This is extremely important in terms of free enterprise, which involves the development of farms mainly due to the results of their own activities [10].

Roschin Iu.V., which claims that the development of market relations in the feed Ukraine, unlike existing covers the following areas: formation of a land market served by the State Land Bank, the transformation food production enterprises in market entities to based on the marketing of their products in the market of feed, forage production stimulation of preferential mortgage lending through mortgage rates, optimizing the size of the

concentration of feed and elements of organizational and economic structure of the industry [9]. In this context the synergistic effect shall be followed. For example, an important role in improving soil fertility and efficiency of agricultural areas include introductions. Introduction to the production of introduced plants creates a favorable environment for the preservation and restoration of soil fertility, is a promising source of strengthening the fodder base and replenish the deficit in animal protein. Improve the soil fertility, to create a favorable climate for conducting effective feed production and agricultural production in the biologization agriculture can be achieved by rational distribution of agricultural crops, improving the crop pattern based on specialization, saturation, crop rotation, high-protein legumes and leguminous plants, increasing the area under perennial grasses, introduction in culture farming was common and new economic plants - exotic species, transfer of natural grasslands unproductive lands, improving fertilization, etc. [13]. Intersectional coordination of all agricultural sectors provides complementary effect and increase the competitive stability that will have a positive effect on market and economic activities of fodder production.

The market is largely dependent on the requested and attractive offers. But domestic producers are characterized by insufficient production efficiency and market activity is characterized by high costs and losses in t.ch transaction. In these circumstances, there is need to improve the competitiveness of domestic producers.

Domestic Petrychenko scientist V. believed that the main focus for today's fodder production should become an innovative model of development, which will ensure the production of forage quality parameters and a full realization of the genetic potential of livestock, high profitability, resource and energy conservation [5]. The same opinion is shared by N. Sprynchuk and notes that at present one of the main factors increasing the production of feed is the intensification of agriculture, including fodder production. It can be achieved through investment in such areas as natural grasslands optimization, optimization of the structure of crops, management of land resources, optimizing feed production [11].

Forecast of fodder costs for cattle and poultry, thousand quintals of fodder units

Index	Year									
	Factual							Forecast		
	1990	1995	2000	2005	2010	2011	2012	2013	2014	2015
1	2	3	4	5	6	7	8	9	10	11
In companies of all types										
Fodder of all types	103562	70970	42513	37481	33874	33659	34093	30125	28059	25993
concentrated	35524	22347	12037	12918	14799	14719	15235	16401	17220	18040
inc. ready-mixed feed	15156	6008	2258	3934	5707	5755	6206	7687	8659	9631
coarse	15004	12400	7191	5685	5036	5081	5155	4227	3759	3292
juicy	35301	24972	15087	12628	9933	9653	9565	7168	5766	4364
other types	17733	11251	8198	6250	4106	4206	4138	2330	1314	298
Agricultural companies										
Fodder of all types	78209	44985	15951	11790	11774	11484	11953	10100	9270	8439
concentrated	27710	14409	4219	5649	7899	7750	8265	9814	10834	11853
inc. ready-mixed feed	14040	5069	996	2633	4837	4928	5356	7055	8156	9258
coarse	11948	8919	3265	1793	1136	1068	1095	152	-355	-861
juicy	26891	16635	6361	3303	2133	2076	2065	242	-740	-1722
other types	11660	5022	2106	1045	606	590	528	-108	-469	-831
People's Companies										
Fodder of all types	25353	25985	26562	25691	22100	22175	22140	20026	18790	17554
concentrated	7814	7938	7818	7269	6900	6969	6970	6586	6387	6187
inc. ready-mixed feed	1116	939	1262	1301	870	827	850	633	503	373
coarse	3056	3481	3926	3892	3900	4013	4060	4075	4114	4153
juicy	8410	8337	8726	9325	7800	7577	7500	6926	6506	6086
other types	6073	6229	6092	5205	3500	3616	3610	2439	1783	1128

Source: based on [12].

I. Kishchak considered growing demands of the competitive environment of the main factors considered proper development of forage production intensification of forage production in meadows, sustainable use of the area under fodder crops and eroded land on the slopes of ravines and gullies, more efficient use of reclaimed land, ensuring the development and effective use of high-quality forage resources crops, restoration of existing and construction of new enterprises specialized feed industry (production of premixes, feed additives and complete feed), providing the necessary volume of production of premixes, feed additives in the process needs to produce high-grade feed for animals of all kinds of groups and industrial purposes, the formation of regional resources of companies in the animal feed industry for the production of animal products [3].

A significant role is discharged escalating industrial livestock, through the use of innovative energy-saving technologies that ensure: first, low unit cost, and secondly, a brief period of growing and fattening, and thirdly, the need to feed a minimum while increasing their nutritional value and fourthly, the high quality of the final product.

The determining factor destructive influence on the formation and development of forage is imperfect institutional environment. The need for harmonization of state and market regulation of the Ukraine is now beyond doubt. As the Zelisko N., state control over the production, quality and safety of food resources ensure effective functioning of the system of forage production and stabilization in the field of animal feed markets. [1]

The priority now is to create the legal basis for the development of this sector. In order to regulate relations in the market of feed was adopted the Law of Ukraine

"On the Stern," which reported October 16, 2012 under number 11349. [8] According to the researchers from the State Veterinary and Phytosanitary Service of Ukraine adoption of this bill will stimulate the production of safe and high-quality forage and livestock production, conservation and productivity of animals and, consequently, to quality and safety of animal products, which in turn is very important for Ukrainian consumers. Ukraine joined the WTO, developing market economy and declared one of the pillars of the agro-industrial sector. Livestock production in modern conditions requires the introduction of a fair, transparent and most importantly, effective rules. Ukraine - agrarian country, competitive agricultural markets in European countries, including the export of animal feed and feed raw materials to the EU. Because the bill is dictated by the need to harmonize the legislation of Ukraine with the European Union in respect of procedures to ensure the safety and hygiene of feed. Domestic producers of feed will perform on equal terms with the producers of the EU, where a receiving operating permit for the production of certain types of feed or feed additives and no mandatory product certification. Otherwise, the export of feed on the European Union market is impossible.

To ensure the quality and safety of feed and feed raw materials necessary to complete the improvement, development and harmonization of regulations in accordance with international (ISO) and European (EN) standards for feed, feed raw materials and control of quality and safety, for the production of animal feed, premixes and feed additives, which are intended for use in animal nutrition feed, feed raw materials and biologically active substances authorized for use in

Ukraine relevant supervisory authority; prepare oversight authorities and legislative support for institutions that are allowed to control the quality and safety of feed, feed materials biologically active materials, feed additives and premixes, update the list of banned feed additives and biologically active substances controlling authorities on the basis of annual data summarizing research institutions, among which are laboratories that are directly relevant to assessing the quality and safety of feed, feed materials, feed additives and premixes, in the feed model to develop preventive safety management system based on HACCP - of safety in the production and processing of products across the technological link [6].

Thus, it can be argued that in order to ensure the full functioning of the feed shall act in accordance with the market mechanism. The main purpose of which is the creation and proper functioning of the market infrastructure that will ensure the effective functioning of the feed in conjunction with other markets: finance, credit, labor and others.

Conclusions and suggestions. To finalize the results of research we can conclude:

1. Increased food challenges in the global economy improves socio-economic importance of agricultural food markets in general and in particular the feed market as one of the most important in the field of material production, ensure food security and create an appropriate basis for replication in other areas of agriculture, such as livestock. In the formation of the market is important fodder the interaction of supply and demand, pricing, and improving intersectional economic relations and associated infrastructure market.

2. Features and problems of market feed in Ukraine is economic instability, which leads to limiting the growth of production and trade. Paper, felt the destructive factors of an institutional environment that limit the development of competitive relations and the formation of a proper organized market feed that directly has a negative impact on competitiveness and economic stability of domestic producers in the feed, and the impact of their activities.

3. Place the state in the global agro-food market will be determined by the competitiveness of domestic businesses in targeted sectors of the world market. With the formation of the market of feed, it is necessary to focus on its main functions: accounting and balance supply and demand fodder production, a competitive environment producers and consumers of feed, stimulating the development of the feed business, innovation and investment and the development of information and so on.

4. Further development of the formation of a feed in Ukraine should develop market infrastructure. An important role for special government: Antimonopoly Committee, inspection of price controls and so on. The state should create a favorable organizational and economic mechanism of functioning of the feeds that promote intersectional coordination in the development of all branches of agriculture and provide a complementary effect and positive impact on the market and the economic activities of fodder production. The priority now is to create the legal basis for development

of the feed, the continuation of standardization and certification in the feed line with international and European standards.

4 References

1. *Zelisko N.B.* (2010) Problems and prospects of development of feed resources [Electronic resource]. – Mode of access: http://www.rusnauka.com/27_NII_2010/Economics/72158.doc.htm.
2. *Kischak I.T.* Developing and improving the efficiency of forage production in Ukraine: Author. di ... Dr. Sc. sciences: 08.00.03 / Nicholas state. Agricultural University. - Nikolaev, 2008.
3. *Kischak I.T.* Developing and improving the efficiency of forage production in Ukraine: di ... Dr. Sc. sciences: 08.00.03 / Kischak Teodorovich John, Nicholas state. Agricultural University. - Nikolaev, 2007. - 493 pages.
4. *Krylov V.V.* (2009) Areas of forage production Ukraine Tavricheskiy State Agrotechnology University Proceedings [Electronic resource]. – Mode of access: http://archive.nbu.gov.ua/portal/Chem_Biol/Ptdau/2009_9_1/16.pdf.
5. *Petrychenko V.F.* Actual problems of forage production in Ukraine [Electronic resource]. – Mode of access: http://archive.nbu.gov.ua/portal/chem_biol/van/2010_10/4.pdf.
6. *Petrychenko V.F. Kornichuk O.* The development strategy of forage production in Ukraine [Electronic resource]. – Mode of access: http://fri.vin.ua/pdf_materials/KiK_73.pdf.
7. On approval of the State Target Program of Ukrainian village until 2015 // Economy of APC. - 2007. - № 11. - P. 3-58.
8. About Forages: Draft Law of Ukraine [Electronic resource]. – Mode of access: http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_2?id=&pf3516=11349&skl=7.
9. *Roschina Y.* (2010) Strategy Transformation kormoproizvodstva in rynochnoy Economy [Electronic resource]. – Mode of access: http://archive.nbu.gov.ua/portal/chem_biol/Npkau/econ/2010_128/Files_128/10ryvime.pdf.
10. *Sprynchuk N.A.* Theoretical and methodological approaches to evaluating the effectiveness of investment in forage production system. [Electronic resource]. – Mode of access: http://archive.nbu.gov.ua/portal/Chem_Biol/Vkhnav_ekon/2012_5/pdf/23.pdf.
11. *Sprynchuk N.A.* Current state and prospects of development of forage production investment [Electronic resource]. – Mode of access: http://archive.nbu.gov.ua/portal/soc_gum/inek/2012_2/180.pdf.
12. Animal Husbandry of Ukraine: Statistical Yearbook / Ed. by Ya.M. Ostapchuk. - Kyiv, State Statistics Committee of Ukraine, 2012. - 212 p.
13. *Hodakivska O.V.* (2010) Fields biologization agriculture in forage [Electronic resource]. – Mode of access: http://archive.nbu.gov.ua/portal/soc_gum/e_apk/2010_5/10_05_02.pdf.