

СЕКЦИЯ 3:  
КОНКУРЕНТОСПОСОБНОСТ И УСТОЙЧИВО РАЗВИТИЕ НА ЗЕМЕДЕЛИЕТО  
SECTION 3:  
COMPETITIVENESS AND SUSTAINABLE DEVELOPMENT OF AGRICULTURE

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СЪСТОЯНИЕ И ПРЕДИЗВИКАТЕЛСТВА ПРЕД ЦИФРОВИЗАЦИЯТА НА АГРАРНИЯ СЕКТОР В БЪЛГАРИЯ

**STATE AND CHALLENGES BEFORE THE DIGITALIZATION OF THE AGRICULTURAL SECTOR IN BULGARIA**

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One of the priorities for the new EUs' CAP programming period is to improve the dissemination of knowledge, innovation and digitalization in agriculture and rural areas, which will make a significant contribution to increasing competitiveness and ensuring a higher return on investment in agriculture.

In recent years, the access of Bulgarian households to the Internet and modern information technologies, as well as their use has improved significantly. But there is a big variation in the degree of digitalization in the different sub-sectors of the Bulgarian agricultural sector and in the different regions of the country.

The aim of this study is to analyze the state and challenges for the digitalization of Bulgarian agriculture.

To achieve this goal the following tasks are solved: to analyze the state of digitalization in Bulgarian agriculture; to identify trends in this area; to identify problems and challenges to the development of our agricultural sector in this direction.

The methods used to achieve the goal and solve the problems are analysis and synthesis, induction and deduction, axiomatic method, structural-functional approach, statistical calculations.

The expectations from the study are that the Bulgarian agricultural sector does not make sufficient use of modern digital technologies and the majority of farmers are not familiar with the nature of digital agriculture.

**Key words:** competitiveness, information technologies, rural areas, digital agriculture, market trends

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ЗЕМЕДЕЛИЕТО В КОНТЕКСТА НА РАЗВИТИЕТО НА СЕЛСКИТЕ РАЙОНИ: ЮГОИЗТОЧЕН РАЙОН НА ПЛАНИРАНЕ

**AGRICULTURE IN THE CONTEXT OF RURAL DEVELOPMENT: SOUTHEAST PLANNING REGION**

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For 15 years the agrarian business in our country has been developing in a business environment formed mainly by the common agricultural policy. The purpose of the report is to assess this development in the South-East Planning Region and its impacts on the socio-economic development of rural areas and the state of the environment. The report uses quantitative and qualitative methods. They are the basis of mixed research design. Of the quality methods, expert assessment based on a survey and in-depth structured interviews with 26 experts at the municipal and district level were applied. Quantitative methods are used to process survey and statistical information on agricultural and rural development in the Southeast planning region. The main results are related to the changes in the production and organizational structure of agriculture and their impact on jobs and employment, the age and qualification structure of the employed, unemployment, migration processes, etc. The characteristics of the applied model of agriculture in terms of the predominant type of farms, the functioning of producer organizations, the transition to the production of quality products with protected geographical indications, etc. are outlined.

**Key words:** agricultural models, agricultural holdings, producer organizations, rural areas

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ЗЕМЕДЕЛИЕТО В СЕВЕРЕН ЦЕНТРАЛЕН РАЙОН И СОЦИАЛНО-ИКОНОМИЧЕСКИТЕ И ЕКОЛОГИЧНИ АСПЕКТИ НА ВЪЗДЕЙСТВИЕТО МУ ЗА РАЗВИТИЕТО НА РАЙОНА

# AGRICULTURE IN THE NORTH CENTRAL REGION AND THE SOCIO-ECONOMIC AND ENVIRONMENTAL ASPECTS OF ITS IMPACT ON THE DEVELOPMENT OF THE REGION

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The aim of the study is to assess the importance and socio-economic and environmental aspects of the impact of agriculture in the North Central region for the development of the region. The analysis uses statistical data for the period of our country's membership in the EU. To assess the importance of agriculture in the region and the trends in its development, data from expert assessment by specialists from the regional offices of the State Fund "Agriculture" and the National Agricultural Advisory System are presented. On this basis, are disclosed the peculiarities of the formed model of agriculture in the North Central region in terms of changes in the size of farms, production specialization, organizational parameters, diversification of activities, application of agri-environmental practices and others.

**Key words:** rural areas, agricultural model, structural changes

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ОБОСНОВКА НА НЕОБХОДИМОСТТА ОТ ПРИЛОЖЕНИЕ НА ИНТЕЛИГЕНТНИ СИСТЕМИ ЗА СКЛАДОВЕ В ЖИВОТНОВЪДСТВОТО

## JUSTIFICATION OF THE NEED TO APPLY INTELLIGENT STORAGE SYSTEMS IN LIVESTOCK BREEDING

*Velizara Pencheva, Vladimir Hvarchilkov, Asen Asenov, Ivan Beloev, Dimitar Grozev, Emil Yankov, Ivailo Hristakov*

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The report analyzes existing solutions for warehouse management systems in livestock breeding. As a result of the research, a concept for the application of intelligent systems in livestock warehouses was presented. The proposed system is intended to improve the operation and functionality of the warehouse.

**Key words:** warehouse, intelligent systems, warehouse efficiency, warehouse logistics, livestock breeding

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ИНВЕСТИЦИОННА АКТИВНОСТ В РАСТЕНИЕВЪДСТВОТО - ОЦЕНКА И ПЕРСПЕКТИВИ  
INVESTMENT ACTIVITY IN HORTICULTURE - EVALUATION AND PROSPECTS

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The agricultural sector in Bulgaria faces a number of challenges related to the new programming period for Europe and the forthcoming technological transformation. The new realities in the transition period (2021-2022) require in-depth research on the willingness of the sector in terms of investment opportunities and prospects for it. The purpose of this study is to analyze the investment activity in the horticulture sector and to identify some of the main factors that interposed it. The dynamics and the amount of investments in the sector is analyzed through the incremental changes that have occurred with fixed tangible and intangible assets. The impact of financing and co-financing is taken into account, as well as the company's refinancing opportunities.

**Key words:** horticulture, investment activity, financing, gross value added, sale revenue, profit

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МОДЕЛИ ПРИ УПРАВЛЕНИЕ НА ДОСТАВКИТЕ В ЖИВОТНОВЪДСТВОТО  
MODELS IN SUPPLY MANAGEMENT IN ANIMAL HUSBANDRY

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The models that could be used to manage livestock supplies are quite diverse. They are deterministic or stochastic depending on the level of demand for a resource. If they allow time change of some parameters are dynamic, and in the opposite case - static. They can affect only one or several important stocks at a time. The purpose of this article is to make a literature review of the different types of models and their possible application in livestock supply management.

**Key words:** models, supply management, animal husbandry

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АНАЛИЗ НА ДИНАМИКАТА НА СРЕДНИТЕ ЦЕНИ НА ДОГОВОРИТЕ ЗА АРЕНДА НА ЗЕМЕДЕЛСКИ  
ЗЕМИ В ЮИР НА БЪЛГАРИЯ ЗА ПЕРИОДА 2010-2019 ГОДИНА  
**ANALYSIS OF THE DYNAMICS OF THE AVERAGE PRICES OF THE CONTRACTS FOR LEASE OF  
AGRICULTURAL LANDS IN SOUTH-EASTERN REGION OF BULGARIA FOR THE PERIOD 2010-2019**

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Leases and rent play a key role in agricultural production. Rental payments represent a significant part of production costs. Practice shows that in order not to lose the already occupied areas, producers increase the amount of payments to owners. The aim of the study is to track the dynamics of average prices for lease agreements for the South-Eastern region of Bulgaria. Basic and chain indices of price dynamics were used. There was a continuous growth of increase in rent payments.

**Key words:** land, basic year, trend, increase

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ИКОНОМИЧЕСКИ АСПЕКТИ И ПРЕДИЗВИКАТЕЛСТВА ПРИ ПРЕЦИЗНОТО ЗЕМЕДЕЛИЕ  
**ECONOMIC ASPECTS AND CHALLENGES OF PRECISE AGRICULTURE**

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Precise agriculture is an intersection in which meet high technologies, knowledge of the earth, soil, climate and good practices in agricultural activity. Economical aspects with precise agriculture are related to introduction of those practices that can help improving the optimization of costs and achievement of higher quality products and better crop collection rates. In order to introduce the practices and techniques of precise agriculture specific investments are required in: information assurance, agrotechnical procedures, services of monitoring, and the use of GPS devices for mapping the field and planning the production process according the specific needs of the farm. There are wide variety of techniques that could be introduced in the production process, but only in determined cases these practices could be viable and could lead to real pay-back in reasonable period of time and of course, could lead the agricultural production to optimization levels, reducing costs of exploitation and improving financial statements of the farm.

**Key words:** agriculture, economics, new technologies

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ДИГИТАЛИЗАЦИЯ И ФИНАНСОВИ РЕЗУЛТАТИ НА ПРЕДПРИЯТИЯ ОТ СЕКТОР ЖИВОТНОВЪДСТВО  
**DIGITALIZATION AND FINANCIAL PERFORMANCE OF ENTERPRISES FROM LIVESTOCK  
SECTOR**

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The European Union's strategy for the digitalization of agriculture is reflected in a number of initiatives, programs and projects. The effect of promoting the application of digital technologies is sought in increasing the farmers' competitiveness and their entry into the foreign market. This is expected to be done through the introduction of innovations leading to cost optimization and greater efficiency. The article examines some concepts related to digitalization, such as "digital maturity", "digital transformation", "digital intelligence" and others. A model is presented to establish the impact of digital opportunities on the business efficiency of entrepreneurs in the livestock sector. Based on an empirical study of companies in the livestock sector, the relationship between digitalization and business results, increasing sales revenue, size, and innovation activity is analyzed. An attempt is made to determine the characteristics and degree of financial performance of enterprises implementing ICT solutions to enterprises that have not yet oriented their activities towards digital transformation.

**Key words:** digitalization, ICT solutions, financial performance, livestock sector      digitalization,      ICT solutions, financial performance, livestock sector

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СТРАТЕГИИ ЗА ПРИЛАГАНЕ НА ИНОВАЦИИ ОТ ВИНОПРОИЗВОДИТЕЛИТЕ В БЪЛГАРИЯ:  
ЕМПИРИЧНИ ДОКАЗАТЕЛСТВА

**STRATEGIES FOR IMPLEMENTATION OF INNOVATION BY WINE PRODUCERS IN BULGARIA: AN EMPIRICAL EVIDENCE**

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The innovations are rather important for the competitiveness of a company. As wine production is a traditional economic sector in Bulgaria, its sustainable development and competitiveness can be enhanced by implementation of innovations. Making the implementation of innovation resultative and successful depends on the existence of an innovation strategy. Thus, the purpose of the current study is to identify the level of implementation of innovation strategies among Bulgarian wine producers, and to identify an association between various factors and the intention to implement innovation strategies. The object of the research is Bulgarian SMEs wine producers. The focus is their activity, regarding the innovation strategy of their company. The methods include a survey performed in the period December 2019 - January 2020. The data was processed with statistical software and statistical methods were used. The results show that several associations can be identified as regards some of the characteristics of the SMEs and we can conclude that the newest companies mostly implement innovations, alongside with the smallest ones. There are more strategic innovators among the companies, who work on world markets and use financing from national funds, alongside with those who produce fruit wines, special wines, and wines with PDO.

**Key words:** innovation strategy, SMEs, wine producers, Bulgaria

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ПРИРОДЕН РЕСУРСЕН ПОТЕНЦИАЛ - ОСНОВА ЗА РАЗВИТИЕ НА БИОИКОНОМИКАТА, СВЪРЗАНИ С  
КОНВЕНЦИОНАЛНОТО И БИОЛОГИЧНО ЗЕМЕДЕЛИЕ В БЪЛГАРИЯ

**NATURAL RESOURCE POTENTIAL - BASIS FOR DEVELOPMENT OF THE BIOECONOMY, RELATED TO CONVENTIONAL AND ORGANIC FARMING IN BULGARIA**

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The lithosphere is the solid foundation formed during the formation of our planet. Natural resources have been formed in its layers, which directly influence the Socio-economic development of human civilization during different time periods. The natural complex of Bulgaria is formed by three basic components: natural environment, natural resources and natural conditions. They take part in one way or another in the formation and development of economic, economic and environmental territorial structural units at the local level.

Unlike the classical branch economy - Bioeconomy could form and analyze its synergetic models based on ecological attitude to all economic activities of the landscape such as: extraction of mineral and forest resources, tillage, extraction of non-metallic minerals (low carbon), mineral waters, processing of waste for secondary industrial use and other economic activities.

The aim of the present study is to study the natural resource potential on the territory of Bulgaria and to analyze the existing opportunities for development of the bioeconomy. To compare and analyze the relationship between conventional and bio culture crops in ha. on the territory of the country, the possibility for their practical application in the systems of the circular economy.

**Key words:** Bioeconomy, natural environment, conventional and bio culture crops

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ИНТЕЛИГЕНТЕН АНАЛИЗ НА АКТИВНОТО УПРАВЛЕНИЕ В ЖИВОТНОВЪДСТВОТО  
INTELLIGENT ANALYSIS OF ACTIVE MANAGEMENT OF ANIMAL HUSBANDRY

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The growth of modern technological solution, information technology, automation, artificial intelligence allows their power to be applied in traditional animal husbandry. This will give rise in productivity and sustainable development

of the animal farms by increasing the economical growth, decrease on recourses in husbandry operations and human efforts.

- The information technologies are applied in feeding system by means to automate the operations and intelligent solutions support the preparation of the feeding.

- The intelligent solutions can increase the animal production to be more profitable and efficient. This make rise of the research development towards implementation of intelligent applications of animal productivity and sustainability [ZluluiXi, IEE2021].

The usage of intelligent solutions on husbandry management prevent managers from ineffective decision makings. Thus the risk of husbandry management is considerably decrease.

The application of intelligent technological solutions on animal husbandry can assess in real time the current state of their operational life. This is performed by qualitative analysis of financial and material flow which participate in inputs and outputs recourses and production outcomes of the animal husbandry. Based on qualitative evaluation it is identified tendencies of the future behavior of the husbandry.

**Key words:** animal husbandry, intelligent solutions, innovations, risk assessment

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СЪВРЕМЕННО БАНКИРАНЕ ЗА ДИГИТАЛИЗАЦИЯ В ЖИВОТНОВЪДСТВО

**ADVANCED BANKING FOR DIGITALIZATION IN ANIMAL HUSBANDRY**

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The article describes ICT innovations in modern banking and the transition to open banking. Platforms for fast money transfers, movement schemes for transactions and types of services are presented. Possibilities for digitalization of financial operations in animal husbandry are discussed. Factors such as reducing costs, increasing efficiency, facilitating and improving decision-making in the overall management of the financial, economic and reporting activities of a livestock farm are analyzed.

**Key words:** open banking, fast money transfers, banking services

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ИКОНОМИЧЕСКА ЕФЕКТИВНОСТ НА БИОСТИМУЛАНТИТЕ В ЗЕМЕДЕЛИЕТО

**ECONOMIC EFFICIENCY OF BIOSTIMULANTS IN AGRICULTURE**

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Addressing issues related to the economic efficiency of biostimulants in agriculture meets the needs of farmers and consumer requirements. The urgency of the problem is also determined by its compliance with the priorities of the European Union for the new CAP 2021+. It seeks and solves a new problem for our country, which is in line with national priorities for healthy food and commitments to the European Union. Increasing plant productivity can be achieved on the one hand by genetics and selection, as well as by managing physiological and biochemical processes through the use of growth regulators, on the other hand. The aim of the study is to assess the economic efficiency of biostimulants used in agriculture. The economic efficiency of the various biostimulants is established by solving the problem with the production structure of the agricultural holding. To establish the economic efficiency of the various biostimulants, an economic-mathematical model based on linear optimization has been developed. The results of the preliminary studies show that in assessing the impact of biological substances it is necessary to take into account not only the increase in profitability and the profit per unit area of agricultural crops but also whether the profit of the holding has increased as a whole.

**Key words:** agriculture, economic effect, biostimulants, optimizing of production structure

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РОЛЯТА НА БИОМАСАТА В БЪДЕЩАТА БИОИКОНОМИКА

## **THE ROLE OF AGRICULTURAL BIOMASS IN THE FUTURE BIOECONOMY**

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The European Commission presented the 2018 Bioeconomy strategy which developed action plan for resource-efficient, competitive and sustainable economy. Bioeconomy sectors are also linked to the European Green Deal, Stepping up Europe's 2030 climate ambition Communication, Farm to Folk strategy and other innovation strategies. In the transition to low carbon world, biomass play crucial role as an alternative to fossil resources. In the EU agriculture is main biomass source with 68% of the total supply. The paper analyses European Union agricultural biomass potential, supply and use. Agricultural biomass is part of the core bioeconomy sectors and its demand is increasing. However, the potential and alternative opportunities for its use are major concern. Biomass is renewable but limited resource and on that basis it is important to outline biomass balance and pay attention on the ratio between food and industrial needs of biomass which refer to food and energy security. The policy framework in this regards have to be complex and well-targeted. The biomass use could lead to a number of benefits associated with resolving global issues. On the other hand, if sustainability is not taken into account, the opportunity for inclusive growth and development will not be achieved.

**Key words:** sustainability, low carbon economy, food security

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КЪСИТЕ ВЕРИГИ НА ДОСТАВКА НА ХРАНИ В БЪЛГАРИЯ - УСТОЙЧИВОСТ И СМУЩЕНИЯ

## **SHORT FOOD SUPPLY CHAINS IN BULGARIA – SUSTAINABILITY AND DISRUPTIONS**

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Short food supply chains have the potential of improving local food production and provide the population with high quality fresh food. The sustainability of these chains has come under question last year (2020) due to the disruption caused by the pandemic and the lack of preparation for it.

The goal of this study is to analyze the sustainability of short food supply chains in Bulgaria and identify the main sources for their disruptions.

In order to achieve this goal, the following tasks must be solved: to analyze the state of short food supply chains in Bulgaria; to evaluate the level of sustainability of these chains, and to discover and present the main sources for disruptions of short food supply chains in Bulgaria.

**Key words:** agriculture, competitiveness, logistics

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ДИГИТАЛНАТА ТРАНСФОРМАЦИЯ НА ПРОИЗВОДСТВОТО НА ХРАНИ В ЕВРОПА И

ВЪЗМОЖНОСТИ ЗА АДАПТАЦИЯТА И В БЪЛГАРИЯ

## **DIGITAL TRANSFORMATION OF FOOD PRODUCTION IN EUROPE AND OPPORTUNITIES FOR ITS ADAPTATION IN BULGARIA**

*Georgi Aleksiev*

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Agricultural production in Europe has been focused on increasing its efficiency and improving its ecological imprint. New digital technologies have created opportunities to achieve these goals and thus created a competition among producers for their implementation on a large scale. In the meantime, CAP of EU has presented multiple forms of support for the digital transformation of the sector.

The goal of this study is to analyze the key points of digital transformation of agricultural production in Europe and distinguish the opportunities for technological adaptation of digital solutions in Bulgaria.

In order to achieve this goal the following tasks must be solved: to analyze the level of digital transformation of food production in Europe and its main advantages; to recognize the opportunities for transfer of technologies and solutions adapted for the Bulgarian agricultural sector.

**Key words:** production technology, competitiveness, agriculture

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ФАКТОРНИ ВЛИЯНИЯ В ХРАНИТЕЛНАТА ИНДУСТРИЯ НА ПРИМЕРА НА  
МЛЕКОПРЕРАБОТВАТЕЛНИТЕ ПРЕДПРИЯТИЯ В БЪЛГАРИЯ

**FACTOR INFLUENCES IN THE FOOD INDUSTRY OF THE EXAMPLE OF DAIRY PROCESSING  
ENTERPRISES IN BULGARIA**

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The purpose of this article is to examine the factors that affect the sales revenues of companies in the food industry with a subject of business activity of processing milk and dairy products.

Based on available statistical information and applied theoretical statements, a method of analysis was chosen related to the change in sales revenues from the volume, price and range of produced and sold types of dairy products.

By studying the relationships and dependencies of factor influences, it is possible to optimize production capacity and to do more effective strategic planning.

The obtained result of the research is the basis for deriving guidelines and recommendations in order to increase the financial result of the dairy processing enterprises in Bulgaria.

**Key words:** sales revenues, factor influence, production and processing, milk and dairy products

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КОНКУРЕНТНИ ПРЕДИМСТВА НА БЪЛГАРСКИЯТ ВИНЕН СЕКТОР

**COMPETITIVE ADVANTAGES OF THE BULGARIAN WINE SECTOR**

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The wine industry is traditional sector in the Bulgarian economy. However, at the end of the XX century it faced various challenges. Later, it has started to restore and has developed in number of areas. Nowadays it has new characteristics, based on its strengths and weaknesses. Thus, the purpose of the current study is to identify the competitive advantages of the wine sector in Bulgaria. The object of the research are Bulgarian wine producers, who are small and middle size enterprises (SMEs). The focus of the study is a selection of indicators, which contribute for the identification of their competitive advantages. The data used is of own survey, performed among Bulgarian wine producers. The results show that the main advantages are targeted at qualitative wines from authentic local sorts. This justifies the obligatory direction for differentiation and validation of the Bulgarian wine producers by promoting the wines of local varieties and establishing the identity of the wine regions.

**Key words:** Wine Industry, SWOT analysis, Competitiveness, Competitive advantage, SMEs

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КЛАСИФИКАЦИЯ НА СТРАНИТЕ ОТ ЕС СПОРЕД СТЕПЕНТА НА ПОСТИГАНЕ НА ЦЕЛИТЕ ЗА  
УСТОЙЧИВО РАЗВИТИЕ, СВЪРЗАНИ СЪС СЕЛСКОТО СТОПАНСТВО

**CLASSIFICATION OF EU COUNTRIES ACCORDING TO THE DEGREE OF THE SUSTAINABLE  
DEVELOPMENT GOALS ACHIEVEMENT RELATED TO AGRICULTURE**

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The main goal of the study is to classify the 27 countries of the European Union (excluding the UK) according to their contribution to achieving the UN's global goals for sustainable development related to agriculture. Five goals were selected: Goal 2: Zero hunger, Goal 3: Good health and well-being, Goal 12: Responsible consumption and production, Goal 14: Life below water and Goal 15: Life on land. The following criteria for distinguishing countries were used in the clustering: Goal achievement, Challenges remain, Significant challenges, Major challenges. To achieve this goal, from a methodological point of view, are applied: correlation analysis, cluster analysis, ANOVA analysis of variance and post hoc test for multiple comparison - Tukey HSD. As a result of the analysis, with data from the Sustainable Development Report 2020, four clusters were identified. Bulgaria falls into the second cluster, along with Croatia, Cyprus, Finland, France, Greece, Ireland and Sweden. The main conclusion for countries in the second cluster is that there are significant challenges for Goal 2 and Goal 14, challenges remain for Goal 3 and Goal 15 and major challenges for Goal 12.

**Key words:** UN's global goals, EU members, Challenges achievement, Agriculture, Cluster analysis

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ИДЕНТИФИЦИРАНЕ НА КРИТЕРИИ ЗА ДОБРИ ЛОГИСТИЧНИ ПРАКТИКИ ЗА РАЗВИТИЕ НА АГРОБИЗНЕСА

**IDENTIFICATION OF CRITERIA FOR GOOD LOGISTICS PRACTICES FOR AGROBUSINESS DEVELOPMENT**

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The main research goal is to identify criteria for good logistics practices for the development of agribusiness in Bulgaria. The thesis is that the construction of logistics chains is a market reaction of the business for efficient use of available resources and generation of added value, contributing to cohesion between the regions in the national economy. Methods are analytical tools such as: analysis and summary of literature, tabular, graphical and schematic presentation of characteristics and trends, interview and survey on the possibilities for building logistics chains in agribusiness. The results of the study are: First. There are regional inequalities and asymmetries in territorial development. The survey data show that in less developed regions there are more logistics companies with a wide range of activities, which helps generate economic growth and achieve regional cohesion. Second. Based on the survey, the main problems and positive trends in solving internal organizational problems in business organizations are outlined. Third. The following criteria for good logistics practices in business development have been identified and substantiated: internet platform for doing business, commercial packaging and design, inventory and delivery tracking systems, shortening planning time, order processing and delivery, service and maintenance, promotional policy and establishment of logistics structures.

**Key words:** logistics chains; criteria for good logistics practices; regional inequalities and asymmetries; regional cohesion; agribusiness.

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ПОДОБРЯВАНЕ НА ДОСТЪПА ДО ФИНАНСИ ЗА ЗЕМЕДЕЛСКИТЕ СТОПАНСТВА В БЪЛГАРИЯ КАТО ФАКТОР ЗА УСТОЙЧИВОСТ НА ФИНАНСИРАНЕТО НА ЗЕМЕДЕЛИЕТО В БЪЛГАРИЯ

**IMPROVING ACCESS TO FINANCE FOR AGRICULTURAL AS A FACTOR FOR THE SUSTAINABILITY OF AGRICULTURAL FINANCING IN BULGARIA**

*Damyan Kirechev*

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The report analyzes the demand for finance and the supply of financial services. The assessment is that access to finance is a significant difficulty for Bulgarian farmers. Bulgarian farmers value their problems with access to finance at least twice as much as those of average European farmers. The main difficulties experienced by Bulgarian farmers and reflected in the demand for finance are determined by their needs for working capital, modernization of agricultural enterprises, and the purchase of agricultural land. The supply of agricultural loans is growing. The state of lending to the agricultural sector in the period after the country's accession to the European Union in 2007 is studied. In recent years, the supply of credit has increased. The main problems in the credit market are the concentration of the banking sector, the high levels of indebtedness, difficulties related to loan collateral. Lending is closely linked to financial support under CAP schemes. The development of financial support in combination with the improvement of the supply of agricultural finance is an important factor for achieving sustainable financing of agriculture in Bulgaria in the coming years. The need to improve the tools for improving the value chain in agriculture is highlighted.

**Key words:** access to finance; financing; agriculture; financial needs; farm credit;



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АГРОЕКОЛОГИЧНИ ПРАКТИКИ ЗА ИЗПОЛЗВАНЕ НА ЗЕМЯТА КАТО ПРЕДПОСТАВКА ЗА ИЗГРАЖДАНЕ НА УСТОЙЧИВА ХРАНИТЕЛНА СИСТЕМА  
**AGRI-ENVIRONMENTAL PRACTICES FOR LAND USE AS A PREREQUISITE FOR BUILDING A SUSTAINABLE AGRI-FOOD SYSTEM**

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The study analyses the potential of agroecological practices in agricultural land use to ensure increased sustainability of the agri-food system. Conventional agricultural practices are perceived to have an increasingly negative impact on land use, necessitating the adoption of new approaches. In the context of climate change, the role of sustainable land management and its ability to sequester carbon is increasing. The need to support farmers adopting agri-environmental practices is highlighted. The introduction of such practices is seen as a major factor in improving the supply of healthy and safe food.

**Key words:** agroecology; agroecological practices; land use; sustainable land management; agri-food system;

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СРАВНЕНИЕ НА ИКОНОМИЧЕКАТА ЕФЕКТИВНОСТ НА СТОПАНСТВОТА В МЛЕЧНОТО ГОВЕДОВЪДСТВО В БЪЛГАРИЯ И ФР ГЕРМАНИЯ  
**ECONOMIC EFFICIENCY COMPARISON OF DAIRY CATTLE FARMS BETWEEN BULGARIA AND FEDERAL REPUBLIC OF GERMANY**

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Milk is produced in every single EU Member State without exception. The EU is a major player in the world dairy market as the leading exporter of many dairy products, most notably cheeses. The EU's main producers are Germany, France, the United Kingdom, Poland, the Netherlands and Italy which together account for almost 70% of the EU production.

Dairy farming is structured differently in all of the Member States.

The purpose of this article is to make a comparative analysis of economic performance of the holdings of dairy farming between Bulgaria and the largest producer of milk in the EU - Germany.

To achieve the target the following - important tasks are solved:

- Analysis of the Economic Efficiency in the sector in both countries;
- Comparison of economic efficiency in Bulgaria and the Federal Republic of Germany with data from selected farms in the sector;
- Outlining some trends in the development of economic efficiency of dairy farms and making recommendations for its improvement.

**Key words:** Economic efficiency, dairy cattle, Bulgaria, Federal Republic of Germany