

# РЕЗЮМЕТА

на научните публикации и трудове

на гл.ас. д-р Росица Петрова Белухова-Узунова от катедра „Икономика“ при АУ-Пловдив, които не повтарят представените за придобиване на ОНС „доктор“, покриващи националните минимални наукометрични изисквания за придобиване на академичната длъжност “доцент ”, в област на висше образование 3.0 Социални, стопански и пр авни науки, професионално направление 3.8 Икономика, научна специалност „Икономика и управление (селско стопанство)“, във връзка с конкурс, обявен в ДВ, бр. 97/21.11.2023 год.

I. Научни публикации, реферирани и индексирани в световноизвестни бази данни с научна информация:

I.1. Научни публикации, реферирани и индексирани в SCOPUS:

1. Sadłowski, A., R. Beluhova-Uzunova, Rositsa, J. Popp, D. Atanasov, B. Ivanova, M. Shishkova, K. Hristov 2022 .**Direct Payments Distribution Between Farmers in Selected New EU Member States.** Agris On-Line Papers in Economics & Informatics, 14(4)., pp. 97-107, ISSN 18041930, **SCOPUS Q2 SJR 0,27**

**Abstract:** The study aims to identify the degree of direct payments concentration in selected Central and Eastern European Member States (compared to the entire EU) and outline perspectives and recommendations for the next programming period. The spatial scope of the study includes Poland, Czech Republic, Hungary and Bulgaria. The time scope covers the period 2009 – 2019. The survey indicates that the payments distribution in Bulgaria, Czech Republic, Hungary, and to a lesser extent in Poland, is highly unbalanced. The analysed countries used the redistribution instruments, optional for the Member States, which were introduced by the 2013 CAP reform, to a moderate extent, in order to ensure a more even funds distribution between the beneficiaries. It cannot be ruled out that instruments ensuring a more even funds distribution would be politically easier to introduce at the EU level than at the national level. Nevertheless, also in the next financial perspective, in line with the subsidiarity principle, this issue is left to the Member States.

Some of the outcomes of the study are:

1. Despite the opportunities provided by the CAP, after 2013, the unbalanced funds allocation under the First Pillar helped the further development of large holdings;
2. The CEE countries did not utilize the potential of available instruments to support small and medium-scale farmers;
3. The excessive concentration of agricultural production systems causes strong pressure on natural resources.
4. The new CAP, 2023-2027, is orientated towards greening, digitisation and young farmers. There are no serious changes in the direct payments schemes, which could contribute to further polarization.
5. The convergence of support level between farmers and between Member States is lagging behind. Subsidiary principle and related to that Member States decisionmaking will determine the opportunities for more balanced and fairer financial support distribution.

2. Shishkova M, Ivanova B, **Beluhova-Uzunova R**, Harizanova A. 2022. **Opportunities and challenges for sustainable production and processing of Rosa damascena in Bulgaria**, Industrial Crops and Products, 186, p.115184., ISSN 09266690, **SCOPUS Q1, SJR 1**

**Abstract:** The production of *Rosa damascena* and rose products is traditional for Bulgaria and is of key importance for the family farms in the rural areas where it is carried out. At the same time, this production faces some technological, economic and environmental challenges. The latter is a prerequisite for the application of the principles of the bioeconomy and the appropriate use of residues. In this regard, the aim of the study is based on research and analysis of the challenges and opportunities in the production and processing of *Rosa damascena*, to reveal the potential for sustainable results. This article discusses (1) trends and problems in the production of *Rosa damascena*; (2) key factors influencing the decision to leave the sub-sector and the possibilities for keeping farmers in it and (3) the potential for increasing the economic efficiency of processing enterprises. The case study and regression analysis are applied. The results of the study show that the main difficulties faced by the producers are determined by the low purchasing price of *Rosa damascena*, the high cost of labor and the lack of workers. In turn, the factors that have a strong effect on the decision to leave or to stay in this type of production are the age of farmers, their education, experience in growing *Rosa damascena* and

the size of the cultivated area. Based on the results of the study, it can be recommended to the policies in the field to provide additional support for young farmers to continue to develop this business. Investments are also needed to increase the level of human and social capital. On the other hand, new technologies and models enable processors to further process residuals that are currently being discarded. However, representatives of the processing enterprise identified the need for development of innovative and cheaper solutions for drying waste products.

## **1.2. Научни публикации, реферирани и индексирани в Web of Science:**

1. **Beluhova-Uzunova, R.,** Shishkova, M. And Hristov, K., **2023.** Bulgarian agricultural structure and prospects Post-2023. Scientific Papers Series Management, Economic Engineering in Agriculture & Rural Development, 23(2).pp. 75-82, PRINT ISSN 2284-7995, E-ISSN 2285-3952 – WEB OF SCIENCE

**Abstract:** The CAP 2013 reform aimed to achieve ambitious goals - more equality in the distribution of financial support, better targeting and „greening” of direct payments. The aim of the study is to outline the changes in Bulgarian agricultural structure and to formulate recommendations for the post-2023 period. The results show that in Bulgaria, during 2010-2020, the number of agricultural holdings decreased by 64%, and the farm structure was seriously transformed. The trends of land concentration and polarization are continuing, although the European and national policy priorities are directed at overcoming the imbalances and differences. These land concentration processes are accompanied by accumulating a significant share of direct payments in large holdings. The transformations in farm structure could lead a significant challenge in the context of future Bulgarian agricultural development, food security and livelihood in rural areas. The flexibility and subsidiarity proposed by the CAP allow the EU Member-states to set their priorities and direct financial support to crucial sectors according to national specifics. However, financial aid should be better targeted, and the capping and payments reduction need to be more efficient.

2. **Beluhova-Uzunova, R.,** Dunchev, D. 2022. **Agriculture 4.0–Concepts, Technologies and Prospects.** Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, 22, pp.97-104, PRINT ISSN 2284-7995, E-ISSN 2285-3952, WEB OF SCIENCE

**Abstract:** Agriculture 4.0 is seen as a new possibility in overcoming the global challenges related to the scarcity of resources, climate change and food security. In this context, the aim of the paper is to outline the main definitions, concepts, technologies and trends in Agriculture 4.0 development and discuss the challenges, as well as opportunities and prospects. Based on the literature overview, it can be concluded that Agriculture 4.0 will play a crucial role in transforming the agri-food sector and shaping future agricultural production models. On the other hand, the new concepts should be linked to the Green Deal and sustainable development goals to ensure a fair and resilient agricultural system. Along with the benefits of Agriculture 4.0, there are challenges associated with farmers' perceptions and ability to change, the development of infrastructure, especially in rural areas and the lack of standards for implementing the new technologies. The government and policymakers' role is essential and should be directed in supporting the implementation of the concept Agriculture, 4.0.

3. Georgiev M, Grozdanova D., Ivanova B., **Beluhova-Uzunova R.**, Shishkova M. 2022. **Agricultural Land, Rent Seeking and Transaction Costs**. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, 22(2), pp.345-352, PRINT ISSN 2284-7995, E-ISSN 2285-3952, WEB OF SCIENCE

**Abstract:** The study aims to assess the dualistic impact of the rents and transaction costs on the farmers regarding agricultural land use. The theoretical framework is based on Rent-seeking (RS) theory and the Transaction cost of economics (TCE). The review of both doctrines explains the "outflow" or "absorption" of value. The study observes the negative aspects of maximizing the functions of farmers with rents. They lead to distortions related to monopolies or unlimited market power. On the one hand, transaction costs are setting market inefficiencies due to the lack of consolidation of property rights and loss of time. On the other hand, rents can positively contribute to the mobility of other factors and, hence, the more efficient allocation of the resources. The transaction costs represent a positive effect of the risk distribution associated with the use of resources, which determines their positive role in protecting property rights. The study uses different methods, such as comparative institutional analysis, which retrospectively shows the effect of the

institutional change and, more importantly, the impact of rent-seeking and transaction costs on main actors in the agricultural sector. The study aims to answer the question: rent-seeking or transaction costs are more important for agricultural activities, and how should they be reduced to maintain better agricultural land use.

4. **Beluhova-Uzunova, R., Shishkova, M., Hristov, K, 2022. Socio-economic challenges for regions and agriculture in the new Member-States.** Scientific Papers Series Management, Economic Engineering in Agriculture and Rural development, 22(2), pp.89-96, .PRINT ISSN 2284-7995, E-ISSN 2285-3952, WEB OF SCIENCE

**Abstract:** The regional inequalities in the EU are an essential part of policy agenda and public discussions. The new Member-States remain in the group of "lagging regions" that includes low-income areas facing a number of challenges. Agriculture is a crucial sector in most of these regions, and it is seen as a major source of local employment and income. The survey aims to present the characteristics and the implication of regional disparities and outline recommendations for more balanced development. The study shows that divergence is growing at a national, regional and local level. Regions are experiencing low growth, high unemployment rate, social exclusion and poverty. However, it can be concluded that many of the regions have unexplored potential. In order to address the disparities, then policymakers should focus on the regions` specific features. The regional programs should be directed to their unique characteristics and challenges. In this regard, the implementation of targeted support should be associated with coordination and cooperation between different stakeholders.

5. **Beluhova-Uzunova, R., Shishkova, M., Hristov, K. 2022. Family farming in the context of global challenges,** Scientific Paper Series, Management, Economic Engineering in Agriculture and Rural development, 21(2), pp. 71-80, PRINT ISSN 2284-7995, E-ISSN 2285-3952, WEB OF SCIENCE

**Abstract:** The current challenges related to the Covid-19 pandemic raise concern regarding security and sustainability of the global food system. As family farming plays a crucial role in the European agricultural sector, its support and development

are vital to ensuring food sovereignty and security, including rural areas. It is the predominant farm model which accounts for more than 90% of the number of holdings and is considered as a main source of income and employment for rural population. In the context of global health crisis it is important to focus the attention on the issues and opportunities that family farms face. The aim of the study is based on an analysis of the observed trends in various aspects of family farming, to discuss the effects of Covid-19 and to highlight the strategies for the development of these agricultural production systems. The paper compares Bulgarian family farming with other EU member states. The survey indicates that although family farms dominate in the EU agricultural structure, they face number of challenges such as access to resources, financial aid, low competitiveness and investment activity.

6. Atanasov, D., P. Zorovski, **R. Beluhova-Uzunova**. 2020 **Technical and Economic Efficiency of Ancient Wheat Species, Grown Under Different Technologies of Organic Fertilization** Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 20, Issue 3, 2020 pp. 109-118, PRINT ISSN 2284-7995, E-ISSN 2285-3952- WEB OF SCIENCE

**Abstract:** The consumer awareness and interest in food quality is growing which leads to greater demand for organic products. Organic farming is helping to maintain biodiversity in the agro-ecosystems, as well as to preserve traditional species and varieties of crops and rare breeds of animals in certain regions or countries. The main objective of the paper is to observe the technical and economic efficiency of the three species of ancient wheat, grown under different technologies of organic fertilization and sowing rates. The study is conducted at the experimental centre for organic production at the Agricultural University – Plovdiv during the period 2014 – 2017. The analysis of results showed different levels of technical efficiency of the three wheat species, grown under different technologies of bio fertilizer treatment. On the other hand, the high prices of the approved fertilizers for organic production do not guarantee the economic efficiency of their application. In fact better economic results were observed without use of fertilizers. It was also concluded that higher sowing rates of the wheat species impacts positively on yields.

7. **Beluhova-Uzunova, R.**, D. Atanasov, M. Shishkova 2020. **Distribution of Direct Payments in Bulgaria – Policy Lessons and Prospects Beyond 2020**. Scientific

**Abstract:** Direct payments are an essential element of the Common Agricultural Policy Budget. Pillar I plays an important role for Bulgarian farmers' income stabilization and support. The aim of the study is to analyse the direct payments distribution in Bulgaria and on this base to formulate recommendation regarding future policy development. In the paper Lorenz curve is applied as widely used measure of inequality. The results indicate significant disparities among farmers and uneven distribution of the financial support. The allocation of aid under Pillar I leads to serious imbalances in Bulgarian agriculture. There is a substantial transformation in production and trade patterns. The new architecture of direct payments and the greater flexibility of the instrument post 2020 can address some of the existing challenges.

Based on the analysis some conclusions and recommendation can be drawn: - The new CAP 2021-2027 proposals are oriented to improve targeting on several directions – greening and young farmers. On the other hand, the convergence among farmers' income support and the external converges among Member-states is lagging behind. In this regard, more ambitious capping and higher reduction payments are recommended. Redistributive payments also need to be more efficient and better targeted. The eco-schemes have been introduced as a new intervention, but their content, requirements and impact are still unclear to some stakeholders. - The flexibility and subsidiarity proposed by the new CAP, as well as the short terms for developing strategic documents could have a negative impact on Bulgaria. - The lack of serious change in the basic payments and other elements of Pillar I is a prerequisite for unequal distribution and further polarization of Bulgarian farm structure. - The capabilities, priorities and ambitions of Bulgarian agricultural policy will determine the efficiency of the CAP implementation. - The new model and responsibilities of the Member-States, could help Bulgarian agriculture to overcome major issues related to the direct payments and farm income distribution.

Engineering in Agriculture and Rural Development, 20(2), pp.273-280, PRINT ISSN 2284-7995, E-ISSN 2285-3952, WEB OF SCIENCE

**Abstract:** Fuel dependency and uncertainty about their prices, coupled with increasing concerns about climate change and other environmental issues, are among the major global challenges on the agenda. They are key drivers for the development of biomass production, considered as the core of the bioeconomy and a main alternative for energy production. The aim of the study is to analyse the contribution of Bulgarian agriculture to the bioeconomy development and the potential of the sector for biomass production. The research is based on the definition and classification of the bioeconomy proposed by the European Commission. The results show a tendency of diminishing importance of Bulgarian agriculture in the national economy after accession to the EU. On the other hand, the sector remains a major source of employment in rural areas. In terms of the potential of Bulgarian agriculture for biomass production, crops of wheat, sunflower and maize play an important role. Based on the data, the other crops analysed cannot be considered as a key source of biomass. Among the major challenges facing Bulgaria are the attitudes in society about the benefits of using biomass, including economic, social and environmental. Therefore, the entrepreneurial activity should be stimulated in order to guarantee sustainable production and efficient use of biomass in the conditions of imbalance between North and South Bulgaria.

9. Dunchev, D. **Beluhova-Uzunova, R.** 2020. **Precision technologies in soft fruit production.** Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, 20(3), pp.131-137. PRINT ISSN 2284-7995, E-ISSN 2285-3952, WEB OF SCIENCE

**Abstract:** The industrialization and mechanization of the agriculture in the 20th century led to an increase in productivity and efficiency and development of large-scale farms. The environmental concerns and resource scarcity transform the models of agricultural production. The implementation of new technologies and digitalization led to evolution of precision farming. The aim of the study is to analyse the economic efficiency of precision technologies in soft fruit production and discuss the possibility of their implementation. The survey focuses on case studies analysis and presents the economic benefits of precision technologies. Opportunities for adoption of



innovation in Bulgaria are also outlined. The methodological framework is based on the “Case study” approach. The survey shows positive economic effect of precision technologies on agriculture. On the other hand, the analysis indicated that there are significant differences in total costs and especially in the investment costs. This in many cases this is the main reason related to the limited implementation of innovations by farmers. The application of precision technologies is concentrated mainly in extensive production with larger holdings. It is necessary to encourage their application in high value-added sectors and benefit from the EU funds in the field of innovation.

10. Lubeniqui, G., **Beluhova-Uzunova, R.** 2019. **Agricultural competitiveness: the case of Kosovo.** Agricultural Sciences/Agrarni Nauki, 11(26), pp. 35-40, ISSN/ISBN 2603-4638 (print) 1313-6577 (print) - WEB OF SCIENCE-CABI

**Abstract:** Kosovo is transforming and reforming its national economy to meet EU standards and requirements. In the country is observed economic growth, but the trade balance and international competitiveness remain a major concern. Agriculture plays a significant role in the integration process and it is considered a source of employment and income for the majority of the rural population. However, the sector is experiencing difficulties in global markets.

The study analyzes the agricultural competitiveness of Kosovo to identify the main barriers and formulates conclusion and recommendation for future agricultural development. Several of the commonly used indicators for the assessment of competitive advantages have been applied such as the Relative index of export advantages – RXA, the Relative trade advantage – RTA and Related competitiveness – RC.

The results indicate that Kosovo has potential and could have competitive advantages in several agricultural sectors, but needs to overcome many challenges and difficulties. The Kosovar agricultural competitiveness could be improved by increasing productivity, administrative and infrastructure capacity and resolve the issues with land fragmentation.

11. Hristov, K, **Beluhova-Uzunova, R.**, Shishkova, M. 2019. Competitive advantages of Bulgarian sunflower industry after the accession into the European Union.

**Abstract:** After the accession to the EU the oilseed crops, especially sunflower and rapeseeds, are becoming promising and advanced sector in Bulgarian agriculture. They account for more than 20% of total agricultural output and dominate in structure of Bulgarian export. Bulgaria and Romania are the largest sunflower seed producers in the EU, with sunflower yields increasing twice over the past ten years. The results in the sector are good starting point for a debate over its competitiveness and efficiency. The aim of the study is to analyze the competitive advantages of Bulgarian sunflower industry and to outline opportunities and challenges for post 2020 period. The sector is observed in terms of production, consumption and trade. Several of the commonly used indicators for the evaluation of competitive advantages have been applied such as the Relative index of export advantages – RXA, the Relative trade advantage – RTA and Related competitiveness – RC. The results show that sunflower seed will continue to dominate in Bulgarian agricultural structure regardless the dynamic of international prices and production. The difficulties in Bulgarian livestock are reflecting the sector and causing dependence on export and foreign trade.

12. **Beluhova-Uzunova, R., Shishkova, M., Hristov, K, 2020. The Common Agricultural Policy Post 2020-Farmers perception and Policy Implication.** Scientific Papers Series-Management, Economic Engineering in Agriculture and Rural Development 20, no. 2 (2020): 61-68. PRINT ISSN 2284-7995, E-ISSN 2285-3952, WEB OF SCIENCE

**Abstract:** The Common agricultural policy post 2020 is still under consideration and discussion among Member-states, farmers' organizations and other stakeholders. The purpose of the survey is to analyse Bulgarian farmers' perceptions and attitudes towards the CAP and to outline the prospects for national implementation in the 2021-2027 budgetary period. The paper is based on a survey covering 74 Bulgarian farmers from all regions of the country. The study applies the comparative, historical

and statistical methods of analysis. The results indicate high expectation for income stabilization and support in bigger farms, while there are some variations and negative trends in smaller holdings. The national priorities for 2014-2020 period are directed in favour of high value-added crops and livestock sector. Bulgaria also implements measures as Redistributive payments, Coupled support and Small farmers' scheme.

However, the financial support allocation is not giving the expected results and the structural imbalances remains. The national policies should be revised and the implementation of the CAP post 2020 in Bulgaria should have better targeting and more equal distribution.

13. **Beluhova-Uzunova, R.**, Hristov, K., Shishkova, M. 2019. **Small farms in Bulgaria-trends and perspectives**. Agricultural Sciences/Agrarni Nauki, 11(25), 59-66, ISSN/ISBN 2603-4638 (print) 1313-6577 (print), WEB OF SCIENCE-CABI

**Abstract:** Small farms play a significant role in the rural regions of the European Union. They contribute to food security, create and foster biodiversity and provide local employment. In Bulgaria, the agricultural structure is dominated by small farms, which represent more than 86% of all holdings. The aim of the study is to outline the main trends and changes in Bulgarian small holdings for period 2010-2016 and to highlight the future prospects and opportunities after 2020. In the study are applied comparative, historical and logical methods of analysis. The results indicate that the share of small holdings in the utilized agricultural area and generated standard output is declining. On the other hand, they concentrate the highest share of the agricultural labour force and remain mostly family business. Although the current schemes under Pillar 1 provide financial support for small holdings, some of the measures are ineffective and unequal. Some of the schemes of the CAP post 2020 should be revised in order to become more effective, fairer and better orienteered.

14. **Beluhova-Uzunova, R.**, Hristov, K., Shishkova, M. 2018. **Structure of Bulgarian agriculture 10 years after the accession to the EU**. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development 18, no. 2 (2018), pp 29-34 PRINT ISSN 2284-7995, E-ISSN 2285-3952, WEB OF SCIENCE

**Abstract:** After the Accession to the European Union the Common agricultural policy become an important factor for the development of Bulgarian agriculture. Despite the positive changes in the sector, the agrarian production in the country is characterized by low competitiveness and efficiency. The aim of the study is based on the analyses of the structural changes in Bulgarian agriculture to formulate conclusions for the effect of the ten years membership on the sector. The paper outlines the transformations in agricultural production, farm structure and trends in trade with agricultural products. The study indicates that there are significant problems related to productivity and value added over the past 10 years. The main challenges are associated with structural and sectorial imbalances, uneven distribution of financial support, polarization and overconcentration in the sector.

15. **Beluhova-Uzunova, R.,** Roycheva, A., Atanasov, D. 2018. Farm competitiveness determinants and drivers. Agricultural Sciences/Agrarni Nauki, 10(24), pp.41-46, ISSN/ISBN 2603-4638 (print) 1313-6577 (print), WEB OF SCIENCE-CABI

**Abstract:** The aim of the current paper is to present an overview of the literature on farm competitiveness and to present several definitions of this concept. Furthermore, we discuss a body of recent surveys on productivity and efficiency and outline key determinants of competitiveness with a view to identifying important drivers for growth. On the basis of previous results from the "Innovative Models for the Increase of Farm Competitiveness in Bulgaria – AGROIN" project we conclude that the key determinants of farm competitiveness referred to above are the quality and quantity of the production capacities, the national agricultural policies, and the innovations and investments in infrastructure.

The processes of globalization and integration in world economics make the concept of competitiveness relevant and provoke a debate over key factors influencing this category. The dynamic changes generate discussion of how to allocate resources and ensure the food security and social welfare. The determinants, contributing to the competitiveness and productivity growth, are subject of interest worldwide. The aim of the study is to highlight the main factors and determinants of farm competitiveness and based on the overview of the literature to outline the main drivers for competitiveness growth.

16. **Beluhova-Uzunova, R.**, Hristov, K. and Shishkova, M., 2017. **Young farmers in Bulgaria-challenges and perspectives.** Agraren Universitet Plovdiv-Nauchni Trudove/Scientific Works of the Agrarian University-Plovdiv, 61(2), pp.37-46., ISSN 1312-6318 (Print), ISSN 2367-5845 (Online)

**Abstract:** Over the past decades, there has been a deterioration of the age structure in the agricultural sector and an insignificant share of young farmers. The negative trends in recent years raise concerns about the future food security and competitiveness of the agriculture. The purpose of the survey is based on the analysis of the structural changes of young farmers to draw conclusions and recommendations on the possibilities to increase their role and importance in Bulgarian agriculture. The research approach includes various methods: analysis, synthesis, deduction and induction. Applied are a comparative, monographic, abstract-logical, graphical method, method of analytical groups, a method of average values, statistical methods of research and analysis. The study indicates that there is a number of challenges that have to be overcome. Negative processes not only in Bulgaria but almost in all EU Member States, require consistent and targeted action in order to support young producers and increase the attractiveness of farm activities.

### **II.3. Научни публикации, реферирани и индексирани в други бази данни:**

1. Atanasov, D., **R. Beluhova-Uzunova**, K. Hristov 2021. **Socio-Economic Dimensions of Regional Differences in Bulgaria.** AGRIBUSINESS AND RURAL AREAS – ECONOMY, INNOVATION AND GROWTH, CONFERENCE PROCEEDINGS, 2021, issue 1, pp.213-220, EconPapers DOI: 10.36997/ARA2021.213, Google Scholar

**Abstract:** Regional disparities are the subject of various discussions in the EU Member - States. The aim of this study is, on the basis of analysis of main socio-economic indicators, to observe trends in the regional development of Bulgaria and to draw conclusions and recommendations associated with overcoming regional imbalances. The study indicates serious regional differences that affect the quality of life and do not correspond with the European Union approach of convergence and

balanced and sustainable economic growth. In order to overcome these challenges, it is necessary to optimize the implemented instruments of cohesion and regional policy. In this regard higher coordination between sectorial policies and better interaction and integration between government and local authorities should be achieved.

2. **Beluhova-Uzunova, R.**, Shishkova, M. and Ivanova, B., 2021. **The role of agricultural biomass in future bioeconomy.** Trakia Journal of Sciences, 19(1), pp.181-186, ISSN 1313-7069 (print), ISSN 1313-3551 (online). EBSCO

**Abstract:** The European Commission presented the 2018 Bioeconomy strategy, which developed an action plan for a resource-efficient, competitive and sustainable economy. The 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 a low carbon world, biomass plays a crucial role as an alternative to fossil resources. In the EU, agriculture is the main source of biomass 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 of biomass and its alternative uses are a major concern. Biomass is a renewable but limited resource and, on that basis, it is important to outline the balance and to pay attention to the relationship between the nutritional and industrial needs of biomass in terms of food and energy security. The policy framework in this regard has 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 opportunities for inclusive growth and development will not be achieved.

3. Georgiev, M., **Beluhova-Uzunova, R.** Shishkova, M. 2021. Risks in the Context of Food Sovereignty. Proceedings of the online International Scientific Conference „Quality Soil as a Pathway to Healthy Food in the EU- Challenges to 2030“ held at the Slovak University of Agriculture in Nitra on October 19-21, 2021, pp. 79-88, ISBN 978-80-552-2403-9, SSRN

**Abstract:** The study analyzes risks in the context of food sovereignty concept. The paper observes the public relations in the agricultural sector. In this regard three main risks are defined: (1) risk of "over efficiency" associated with the degree of consolidation and concentration of resources which creates issues with access to factors of production for some groups of farmers; (2) communication risk – generated by the dynamics of technological change on the basis of information and may create barriers to the adaptation of small local producers; (3) risk of energy poverty – transformation of production through the use of clean energy, which can cause an increase in energy prices and a decline in competitiveness and income affecting local agricultural producers. The aim of the study is to present and outline rules related to the food sovereignty and some of the effects that disrupt agricultural sector in Bulgaria. The paper presents a vision for a new type of risk, which could cause limited access to technology for some farmers. Based on the analysis, some practical solutions are highlighted.

4. **Beluhova-Uzunova, R.,** Shishkova, M. and Ivanova, B., 2019. **Concepts and key sectors of the bioeconomy**, Trakia Journal of Sciences, 17(1), pp.227-233. ISSN 1313-7069 (print), ISSN 1313-3551 (online), EBSCO

**Abstract:** Although the bioeconomy as a concept emerged in the late 20th century, it has generated a significant interest among researchers, policy makers and businesses in the last decade. The interdisciplinary character of the bioeconomy gives an opportunity to address major global challenges, both economic and environmental. The aim of the article is to outline different definitions, concepts, as well as to highlight the key bioeconomy sectors. The paper focuses on the links between the bioeconomy and circular economy, sustainable development, implementation of innovation, value chain formation as well as regional specialization. The survey applies historical, comparative, monographic methods of analysis. The theoretical roots and evolution of the concept are observed. The study analyses different approaches and perspectives regarding the bioeconomy sectors. The results indicate that there is no clear consensus on the definitions and key sectors of the bioeconomy in the global context. Despite the worldwide interest in bioeconomy, there are various challenges associated with the design and

implementation of individual national, regional bioeconomy strategies, which could ensure the development of smart specialisation and green growth.

5. **Beluhova-Uzunova, R., D. Atanasov** 2019 **Biodynamic Agriculture – Old Traditions and Modern Practices**. Trakia Journal of Sciences, 17(1), 530-536. ISSN 1313-7069 (print), ISSN 1313-3551 (online), EBSCO

**Abstract:** The concerns regarding food security and safety, environmental challenges and resource scarcity remodel the prospects of agriculture. Therefore biodynamic farming as an alternative method for sustainable production becomes an object of growing scientific interest in the past 20 years. Biodynamic farming is one of the oldest organic systems and its roots could be found in the beginning of 20th century. Although the skepticism, biodynamic agriculture evolved over the years and nowadays is considered as an opportunity to address various environmental, social and economic issues. The aim of the paper is to introduce the concept and features of biodynamic agriculture and observe different case studies and surveys on the effect of this farming system upon yields, profitability and sustainability. The analysis is based on different research methods. The paper applies monographic, historical and comparative methods. The results indicate that biodynamic farms have higher soil quality, lower crop yields, and equal or greater net returns than conventional agricultural holdings. The long-term effect of biodynamic farming on the economic performance, however, needs further research and investigation. The studies prove that biodynamic agriculture is important alternative farming system that could provide answers to number of alarming questions associated with viability and sustainable development.

6. **Beluhova-Uzunova, R., Dunchev, D.** 2019. Precision farming–concepts and perspectives. Zagadnienia Ekonomiki Rolnej / Problems of Agricultural Economics, no 3, 2019, pp. 142-155, eISSN: 2392-3458 ISSN: 0044-1600, SSRN

**Abstract:** The development of technologies in the 20th century led to evolution of precision agriculture concept. Nowadays, precision farming is usually associated with the use of GPS and satellite navigation, GIS, unmanned airplanes and drones, variable rate of application, as well as complex and sophisticated computer systems



and software. On the other hand, the main question is related to the profitability and efficiency of these technologies and the opportunities for their adoption. The main purpose of the research is to investigate the most popular concepts of precision farming and to analyze the technical and economic efficiency of different technologies based on literature review. The results indicate that the adoption of precision farming technologies is closely related to the farmer's perception of and needs for institutional support. The promotion of precision farming under the Common Agricultural Policy is necessary in order to overcome the number of economic and environmental challenges and ensure sustainable development and green growth.

7. **Beluhova-Uzunova, R.**, Roycheva, A. 2017. Competitive advantages of the Bulgarian viticulture and wine sector after the accession to the European Union. *Trakia Journal of Sciences*, 15(Suppl 1), pp.324-329. ISSN 1313-7069 (print), ISSN 1313-3551 (online), EBSCO

**Abstract:** Viticulture is a traditional and important sector of Bulgarian agriculture and alongside with wine production has a strong export potential. Traditions, combined with favourable natural conditions promote the sector on international markets. The accession of Bulgaria to the European Union brought about a number of challenges and new requirements of the Common Agricultural Policy referring to product quality and competitiveness. The aim of the research is to analyse the competitive advantages of viticulture after the Accession and to highlight the opportunities for the sector in the programming period 2014-2020. Several of the commonly used indicators for the evaluation of competitive advantages have been applied such as the Relative index of export advantages – RXA, the Relative trade advantage – RTA and Related competitiveness – RC. The results of the study show the need for measures directed towards a balanced development of the viticultural sector in a few directions. over the years on the Bulgarian and international markets.

The analysis of the indicators shows serious problems and issues in the competitiveness of Bulgarian viticulture. There are a lot of negative trends such as reduction of harvested area, production, export and gross value added. The low level of investments does not allow for a significant positive change and development of the sector in a right direction to take place. Another significant issue is the problem

with the cooperation and producers' organizations of the farms. This prevents the producers from protecting their interests both in terms of the prices and realization conditions. On the other hand, the division of farmers creates tension between them, a decrease in prices and leads to a lasting trend of a downward development of the sector. In order to change the negative trends in grape and wine production in Bulgaria, some recommendations could be formulated: (1) Production of wines from local and unique commercially significant varieties (2) Focusing on the production of quality wines with Protected Geographical Name and Protected Designation of Origin, which are valuable for consumers worldwide and occupy a higher price niche; (3) Consolidation of vineyards, innovative solutions in grape production, good practices for wine grapes; (4) Implementation of technologies that lead to higher efficiency and productivity of vineyards and are environmentally friendly; (5) Increasing the level of association and cooperation in the sector;

8. **Beluhova-Uzunova, R., D. Atanasov, M. Shishkova 2019 .Direct Payments in Bulgaria – Trends and Perspectives.** Bulgarian Journal of Agricultural Economics and Management, Volume 64 № 3/2019, pp. 42-50. ISSN 2534-9872 (Online), CABI

**Abstract:** Direct payments are key component of the Common Agricultural Policy (CAP) in Bulgaria. During 2007– 2013 they led to serious changes in specialization and concentration in Bulgarian agriculture. In the period 2014–2020, around € 7.4 billion is expected to be invested in farming sector and rural areas through the CAP, of which direct payments are € 5.1 billion. The main purpose of the study is to analyse the trends in direct payments allocation and to outline the opportunities and perspectives for Bulgarian agriculture. Methodological approach includes analysis, synthesis, deduction and induction. Applied are comparative, monographic, logical, tabular and graphical method and statistical methods of analysis. In order to research the disparities in paper is used Gini coefficient as a widely applied measure of inequality. The results show that First Pillar benefits mainly larger-scale farms causing disbalances in Bulgarian agricultural sector. Small and medium sized farms receive negligible share of the financial support. The implementation of new opportunities presented by direct payments could help to decrease sectorial and structural imbalances in agriculture and to decrease the polarization of Bulgarian farms.

9. **Beluhova-Uzunova, R., D. Atanasov** 2017. **Biodynamic Farming – Method for Sustainable Production of Quality Food**. Bulgarian Journal of Agricultural Economics and Management Volume 62, No 3, 2017, pp.40-48 ISSN 0205-3845 (Print); ISSN 2534-9872 (Online),CABI

**Abstract:** Biodynamic agriculture is an organic farming method that could provide ecological, economical and physical sustainability. Biodynamic agriculture was a subject of research during the past decades although part of the scientific community looks at the method with skepticism. In the past 30 years there have been published results of experiments as well as case studies that show the effects of biodynamic preparations on yield, soil quality and biodiversity. The case studies presented a positive environmental impact in terms of energy use and efficiency. The concept of biodynamic agriculture is gaining popularity because of the rising challenges coming from climate change, resource scarcity and population growth. Such alternative practices are viable methods that could make farming systems more diverse and sustainable. The aim of the paper is to underline the basic definitions and history of biodynamic farming, describe the main features of this method and to present different studies and case trails compering biodynamic, organic and conventional agriculture. An overview of different long term trails on biodynamic farming is done. The results show that these systems generally have better soil and product quality and equal or greater net returns per hectare than conventional farms.

10. **Beluhova-Uzunova, R., D. Atanasov, K. Hristov** 2017. "Analisis of Direct Payments Distribution in Bulgarian Agriculture" Web of Science Trakia Journal of Sciences, Vol. 15, Suppl. 1, pp 282-287, ISSN 1313-3551 (online) doi:10.15547/tjs.2017.s.01.051

**Abstract:** Direct payments are the main component of the Common Agricultural Policy (CAP). They form approximately 76% of CAP budget in the programming period 2014-2020. The main purpose of the study is to outline the opportunities and challenges for Bulgarian agriculture, based on the analysis of direct payments distribution. The Lorenz curve, as the most widely used measure of inequality, is applied in the paper to surveying the disparities in the direct payments distribution. The results of the analysis show highly uneven distribution of the direct support

across Bulgarian farms. The Lorenz curve indicates that payments are accumulated mainly in the larger-scale farms, thereby generating problems for small holdings and structural imbalances. The allocation of EU funds has impacted on the level of investments, productivity and economic efficiency of Bulgarian agriculture. In the programming period 2014-2020 the EU has an effort to reduce disparities through a mixed system of financial supports and aids. The 2013 CAP aims at decreasing the degree of inequality in the distribution of payments through two mechanisms - degressivity/capping and the redistributive payments. The impact of these instruments will not be visible until the Commission publishes its next report which will give information on the distribution of payments made to farmers in 2015, the first year of implementation of these reforms. Theoretically, Bulgaria could benefit from the new regulations in terms of overcoming structural imbalances. The concentration of direct payments in the period 2007-2013 caused significant polarization in Bulgarian agriculture. In the new period CAP is more flexible and allows Member States to use different measures regarding the specifics of the countries. Strong political will is needed in order to direct the financial support to priority sector with high value added in order to reduce regional and structural differences.

## **II. Монография:**

The bioeconomy is a concept that has gained wide popularity in the last decade, both globally and at the European level. Its rapid adaptation to the needs of the modern world in response to the goals of achieving sustainable development places this concept at the heart of policies and activities to address the challenges associated with limited resources, environmental protection, increasing human well-being, as well as and those in the other priority directions. The development of the political and legal framework in the field of the bioeconomy at the European Union level is a prerequisite for the faster involvement of the stakeholders in these processes and the establishment of cooperation between them at the local level. New support tools and adaptation of some existing ones are key drivers.

The purpose of the research is, based on the analysis of the development potential and the territorial distribution of the initiatives in the field of bioeconomy, supported at the local level, to outline the priority areas in the implementation of

projects from a given direction and to make recommendations for achieving sustainable results.

The survey includes the following tasks:

First, to outline the theoretical foundations of the bioeconomy, the connection of the concept with other currents in the economy, and sustainable development. The survey highlights the main sectors and strategies.

Second: To adapt a theoretical and methodological framework and assess the potential and prerequisites for the development of the bioeconomy in Bulgaria

Third: To study the possibilities for developing the country's priority bioeconomy sectors and reveal the role and importance of the agricultural sector in these processes.

Fourth: Determining and analyzing the potential for biomass production from key crops for the country and, on this basis, mapping the relevant potential on a regional basis and the possibilities for using biomass in bioenergy.

Fifth: Study of the development of the bioeconomy in Bulgaria at the local level through the identification of projects from the main sectors of the core bioeconomy, supported by the strategies for Community-led local development (CLLD); application of spatial analysis by area concerning the main categories of projects and their financing, and presentation of the distribution of initiatives by year for the period under consideration.

Sixth: Research and analysis of good practices from the bioeconomy aimed at preserving the cultural and historical heritage and realized as a result of the cooperation between the local action groups.

Seventh: Outline the possibilities for financing projects in bioeconomy and analysis of strategies and policies in the field.

Eighth: Proposals in connection with accelerating processes in the field of sustainable development of the bioeconomy at the local level. The object of the present study is the bioeconomy initiatives in rural areas, supported by the strategies for community-led local development of the LAGs operating in Bulgaria during the period 2014-2020.

Based on the conducted research, it can be summarized that a dynamic and evolution has been registered as regards the definition, content and scope of the term "bioeconomy" at the global and European level. Some of the identified challenges and issues are being discussed and resolved, while others are likely to be

clarified. However, the concept is expected to respond to the key global challenges facing modern society. Within these macro environment characteristics, Bulgaria's place and the achievements in the practical application of the concept have been identified. Unrealized potential was revealed, as well as opportunities for the development and application of various activities, which shows the importance of the concept in the country.

In conclusion, it could be emphasized that, albeit slowly, the country is taking the first steps in developing bio-economic practices but needs to realize its full potential. The latter requires both measures at the state policy level, as well as the participation of stakeholders and the development of social capital. Research and development activities are essential in this process. Scientific research and an interdisciplinary approach are the basis for realizing the principles of the bioeconomy, and the need for broader public engagement in this direction must be emphasized. Beyond scientific research, practical application and green transformation of business must be supported and stimulated. Besides strategic documents and plans, integrating individual policies and clarifying the links between the bioeconomy and other key concepts such as sustainable development, the circular, green and inclusive economy is important. The hubs and clusters connecting the individual participants in the value chain will be strategically crucial for realising the goals. The latter must be tailored to the specifics of the regional and local levels as a successful approach to applying the principles of the bioeconomy. The role of local communities is expected to increase for better implementation of a set of initiatives, which will allow Bulgaria to improve its position regarding the contribution of the bioeconomy to the development of the national economy.