

Bibliography

ECONOMIC AND AGRICULTURAL BOOKS

FIRLEJ K., OLEJNICZAK J., PONDEL H.: Wyzwania rozwojowe obszarów wiejskich (Development challenges of rural areas). – Scholar Publishing House, Warsaw 2019, 167 pp.

Modern rural areas, both in developed countries, where the role of agriculture is decreasing and in developing countries where the agricultural production is still the basis for development, are characterised by the high dynamics of functions they perform. The development of these areas and the challenges they face in the 21st century need the proper classification, identification and practical absorption in the economic life of accompanying processes and phenomena. The monograph is aimed at presenting, analysing and assessing the major processes related to the development of Polish rural areas, both today and in a longer term. It is also about showing the specificities of rural areas and development trends resulting from the characteristics of these areas and ever-changing environmental conditions. The first chapter of the monograph is devoted to the description of Polish rural areas, including their multifunctionality, types of development, sustainable development, role of residents, importance of integration with the EU. The second chapter outlines financial problems of rural municipalities, including the idea of subsidiarity, grounds for decentralisation, place in the public finance system, role in implementing the function of public finance, consequences of dividing the tasks between the state and the local government, shaping of the structure and amount of own expenses, tax policy. The final chapter presents the essence of the concept and issue of defining and the principles and objectives of the sustainable rural development. The authors highlighted the growth of environmental, social and economic problems in rural areas, which must be solved while maintaining the appropriate quality of life of the rural population. (M.M.)

GOŁĘBIEWSKI J.: Systemy żywnościowe w warunkach gospodarki cyklicznej. Studium porównawcze krajów Unii Europejskiej (Food systems in the conditions of circular economy. Comparative study of the European Union countries). SGGW, Warsaw 2019, 270 pp.

The human right to access food of adequate quality and quantity is implemented through well-functioning food systems, i.e. methods of producing, transporting, storing, selling and consuming food. These systems depend on the economic, political, social and environmental factors. The experience of the last century, where the problems of environmental degradation and social inequalities became highly important, made people realise that the existing linear and industrial approach to the food production and consumption must be changed. New initiatives and actions aimed at sustainable and efficient use of natural resources, labour and capital to increase food production and ensure food security include concepts of bioeconomy and circular economy. The author of the monograph determined the importance of new economic models – bioeconomy and circular economy – in the functioning of food systems on the example of the EU countries. In the first chapter, he explained the concept of the approach to food systems and indicated how it can help improve the efficient use of natural resources. In the next chapter, he presented the characteristics of food production and distribution sectors in EU countries. Then, he discussed the use of natural resources and the environmental impact of this use. The fourth chapter is devoted to assessing the types of change in food consumption patterns in the context of ensuring food security. In another chapter, he analysed the impact of the food sector on the agricultural and rural development. The last two chapters concern the evolution of food system models influenced by the assumptions of new paradigms: bioeconomy and circular economy. The author stressed that the circular economy means the reduced amount and proper management of waste, extended life cycle of products, reduced food waste and modified eating habits, and all these effects are beneficial for the further functioning and quality of life on Earth. (M.M.)

KULAWIK J., PAWŁOWSKA-TYSZKO J., SOLIWODA M.: Ubezpieczenia społeczne rolników a teorie ekonomii, finansów i wyboru publicznego (Farmers' social security and theories of economics, finance and public choice). – IERiGŻ-PIB, Warsaw 2019, 236 pp.

The Polish literature of the subject analyses the legal and organisational aspects of social security, while their links to various spheres of politics and citizens' lives are very important and complex. Experts from the Department of Agricultural Finance at the IAFE-NRI undertook to fill in this research gap and analysed social security through the prism of micro- and macroeconomics, financial subdisciplines and the theory of public choice. They stressed that the study perspective presented in the monograph refers to the whole social security system, and that the findings taken should be applied to the agricultural sector with caution. The economic and financial analysis of farmers' social security under the theory of public choice requires further studies. In the following chapters of the monograph, the authors presented:

- major concepts and classifications related to social security, its emergence and development;
- farmers' social security issues from the perspective of Poland and other EU countries;
- relationships between social security and economics, highlighting the motives for being insured and the development of private savings as well as the effectiveness and optimisation of the size of the social security system;
- major interactions between finance and social security, in particular the imperfections of private insurance markets, information asymmetry and its derivatives, multiplier and acceleration mechanisms, public debt, redistributive effects and pension reforms;
- key assumption of the theory of public choice and examples of economic and political modelling from the social security sphere. (M.M.)

KWIATKOWSKI C.A., HARASIM E.: Produkcja rolnicza a bezpieczna żywność – wybrane aspekty (Agricultural production and safe food – selected aspects). – SPATIUM Scientific and Publishing Institute, Radom 2019, 145 pp.

According to the global organisations, such as WHO and FAO, safe food should be understood as food that does not cause negative side effects in the human body. The growing interest in this food results from the growing awareness of societies as regards the importance of healthy eating for the quality and comfort of life. The presented monograph synthesised the most important information concerning the production of healthy and safe food, taking into account the realities and organisational and production capacity of Polish agriculture. The authors hypothesised that it is impossible to produce food on a global scale with the complete exclusion of chemisation of agriculture. The well-considered and sensible use of agrochemicals is a yield-producing and harvest-protecting factor, also in terms of crop and food quality. The authors presented the legislation applicable in Poland related to the production of healthy and safe food. They stressed the importance of the quality of crop habitats, the adequate level of agrotechnology and the reduction in chemisation of the agricultural production for the quality of agricultural crops. On the example of a waste product, i.e. the substrate from the cultivation of champignons, they presented the possibilities of using alternative organic fertilisation. They considered the advantages and disadvantages of genetically modified plants and sought to assess whether they pose a threat or an opportunity for the food production. They presented the links between the agricultural production system and food, including the sustainable production and a healthy diet. They found that, in order to reconcile the needs of the agricultural production with the requirements of taking care of the environment and obtaining high quality yields, the most realistic is the concept of sustainable agriculture, which is a synthesis of conventional and organic farming. (M.M.)

Developed by M.M.

ECONOMIC AND AGRICULTURAL ARTICLES

BALIŃSKA A.: Wiejska turystyka kulturowa w kontekście teorii rozwoju endogenicznego (Rural cultural tourism in the context of the theory of endogenous development). – Issues of Agricultural Advisory Service 2019, No. 3, pp. 24-33.

According to the concept of endogenous development, the stimulator of the development of a given area are internal factors creating its potential. The concept is based on the elimination of existing development barriers, use of specific regional conditions, stimulation of intra-regional cooperation and support for local development factors. The economic and social potential of the given area plays an important role in the endogenous development, and recently the emphasis has been put on the level of knowledge and innovation. Based on the analysis of the literature of the subject and results of published empirical studies, the author of the article examined the possibilities of development of rural cultural tourism in the context of the concept of endogenous development. Cultural tourism is defined as an opportunity to participate in the traditional rural life of a given region, learn about customs, values systems of people and traditions. The potential of this kind of tourism is based on folk culture, the elements of which are folklore, functional and artistic craftsmanship. These elements occur in the individual regions of the country in a diverse way, hence the specificities of cultural tourism are aptly described by the theory of endogenous development. (M.M.)

DUDEN CH., URBAN J., OFFERMANN F., HIRSCHAUER N., MÖLLER M.: Die Wirkung von Ertrags- und Wetterindexversicherungen auf das Erfolgsrisiko deutscher Ackerbaubetriebe – wird die Hegingeffektivität überschätzt? (The impact of crop insurance from adverse weather conditions on German farms specialised in field crops – is the security strategy overestimated?). – Berichte über Landwirtschaft 2019, Band 97, Ausgabe 3.

Adverse climate change will continue and determine the high variability of crop yields. As a result, the product and commercial risks will increase significantly. In the economic and agricultural literature, crop insurance from adverse weather conditions is therefore becoming an important topic. The authors conducted a study on 377 German

farms specialised in field crops, in order to assess the security strategy and to determine the impact of yield losses on the economic results of farms. The results of the study showed that the focus of insurance on equalising the variability of yields had a negligible impact on the reduction in the production and commercial risks. (P.S.)

HEADEY D., HIRVONEN K., HODDINOTT J., STIFEL D.: Rural food markets and child nutrition. – American Journal of Agricultural Economics 2019, Vol. 101, No. 5, pp. 1311-1327; doi: 10.1093/ajae/aaz032.

The diet of children living in rural areas of Sub-Saharan Africa is generally poorly diversified. At the same time, in the poor countries of this region, children often suffer from malnutrition. Therefore, efforts should be made in poor countries to develop and diversify the agricultural production. The article analysed the issues of links between the local market characteristics and the diet of children from rural families. Using empirical data on the nutrition of children aged 6-30 months, it was found that the diet of children living near markets offering a wide range of products was more diversified, but this relationship was insignificant. The study on the measurement of the nutrition quality was conducted, *inter alia*, based on the WHO-developed Diet Diversity Score (DDS) and the number of products consumed that did not constitute a traditional meal in the surveyed areas. The authors of the study found that increasing the supply from three to six food products in the analysed market is linked to the increase in the number of products consumed by around 0.27 and to the increased likelihood of consuming a non-traditional food product by 10%. As the researchers notice, particularly important for making the diet of Ethiopian children more diversified are dairy products, vegetables and fruits. (M.D.)

KRACIUK J.: Wpływ międzynarodowych instytucji finansowych na sytuację gospodarczą krajów najsłabiej rozwiniętych (Impact of international financial institutions on the economic situation of the least developed countries). – Scientific Journal of the Warsaw University of Life Sciences: Problems of World Agriculture 2019, Vol. 19, Issue 3, pp. 57-66.

The least developed and poorest countries in the world are the 25 countries of Sub-Saharan Africa. This results from many internal and external factors, the most important of which are: historical conditions, large natural growth, illiteracy, weakness of state structures, dominance of agriculture in the structure of the economy, armed conflicts, deficiency of capital for development and the fight against poverty. International financial organisations, established in 1944, such as the International Monetary Fund (IMF) and the World Bank (WB) are obliged to help the poorest countries. The author of the article examined the impact of the IMF and WB activities on the economic situation of the least developed countries. The aid offered by these organisations was based on the so-called Washington Consensus developed in the 80s of the 20th century. According to it, the economies of poorly developed countries were to implement reforms

based on financial discipline, relevant public spending priorities, tax reform, financial liberalisation, uniform exchange rate, liberalisation of foreign trade, privatisation. The author stated that the IMF and WB activities did not bring the expected results, and that credits granted only increased the debt of the Sub-Saharan African countries and did not result in the GDP growth. The necessary changes to the rules of operation of international financial institutions in relation to the least developed countries are that adaptation programmes are to generate the economic growth conforming with the needs of societies, and the choice of economic-social policy options is to be adapted to the conditions of a particular country. (M.M.)

LUKKAKULA P., SCHMITZ A.: U.S. Sweeteners: combating excess consumption with an excise tax? – *Agricultural Economics* 2019, Vol. 50, pp. 543-554; doi: 10.1111/agec.12508.

Obesity is a serious health problem for the American society, resulting from the excessive consumption of sweeteners. The American Heart Association (AHA) recommends to consume 6-9 teaspoons of sugar per capita a day, and the Food and Drug Administration (FDA) points to the maximum consumption of 200 sweet calories per capita a day. In 2016, the consumption of sweeteners recorded in the USA was significantly higher than the standards suggested by the above-mentioned institutions. The authors of the article determined the amount of tax rates needed to reduce the consumption of sweeteners by consumers to the recommended levels. The estimated integrated tax rate for sugar and high-fructose corn syrup (HFCS) should be, respectively, 31 and 24 cents per pound (0.45 kg), according to the AHA standard, and 19 and 17 cents per pound, according to the FDA standards. The authors expect these taxes will result in the rise in prices of sugar and sweeteners, and this will cause losses in the American food industry. As a result of the introduction of new levies, producers of sugar and HFCS would lose between USD 398 million and USD 844 million a year. However, according to the researchers, the introduction of the tax on sweeteners will affect consumers more than producers. They point out that the assumed objective of new fiscal solutions can be achieved once the new tax covers all sweetened products sold in the market. (M.D.)

MACIEJCZAK M.: Korzyści zewnętrzne prowadzenia zrównoważonych winnic w Polsce w warunkach zmian klimatu (External benefits of managing sustainable vineyards in Poland under the conditions of climate change). – *Annals of Agricultural Economics and Rural Development* 2019, Vol. 106, Issue 1, pp. 98-107.

Climate change observed in Poland, consisting in the extended growing season of crops and increased air temperature promotes the development of winemaking, especially in the western and south-western regions of the country. In 2019, in Poland there were about 500 vineyards, growing vine on 700 ha and producing nearly 13 thousand hectolitres of wine. Based on the review of the literature of the subject, statistical data and consumer surveys, the author of the article identified the types of external ben-

efits related to viticulture in line with the sustainable production principles and also examined consumers' willingness to pay a higher price for wine from such vineyards. He stated that the most important positive externalities accompanying sustainable viticulture include so-called terroir, a set of climate and soil factors responsible for the taste and quality of wine. It involves other effects, such as, e.g. biodiversity, landscape, tourist attractiveness and cultural heritage in the region. Empirical studies showed that consumers attach importance to the way wine is produced and are mostly willing to pay a higher price for an organic product. (M.M.)

NEUENFELDT S., GOCHT A., HECKELEI T., CIAIAN P.: Explaining farm structural change in the European agriculture: a novel analytical framework. – *European Review of Agricultural Economics* 2019, Vol. 46, No. 5, pp. 713-768; doi: 10.1093/erae/jby037.

In recent decades, European agriculture has been subject to profound structural transformations. This process is reflected in a long-term downward trend in the number of farms, the increase in their economic size and the increase in the level of specialisation of the agricultural production. According to the authors of the article, the literature of the subject still lacks a comprehensive explanation of these changes. In their study, they analysed the factors of structural transformations in agriculture of the EU-27 Member States at the level of regions (NUTS-2). They did it by means of an approach novel for agricultural economics, using a multiplicative competitive interaction model (MCI). This model made it possible to present how the shares of the identified categories of farms across the farm population depend on their characteristics, level of agricultural prices, amount of subsidies, macroeconomic and natural conditions. The MCI scheme also allowed to apply fewer parameters to the estimate of structural transformations than for the Markov chain-based method. For the analyses, data from the Farm Structure Survey (FSS), socio-economic variables from the FADN database and other empirical materials have been used. The observation period covered the years 1989-2013. The authors included in their calculations eight agricultural types and two economic size classes (up to 250 thousand SO and more), considering 16 groups of farms in total. The results of the studies show that the historical structure of farms explained about 36% of the variability of the analysed structure in the regions and within the time-frame considered. The shares of individual groups of farms also depended on natural conditions (16% of variability), agricultural prices (14%), macroeconomic variables (9%), subsidies (7%), population density (6%) and amount of agricultural income (6%). More dynamic structural transformations in agriculture took place in the so-called new Member States, as they were relatively less conditioned by historical factors and more by the economic situation and agricultural policy. (M.D.)

PILALAŘ L., KVASNIČKOVÁ STANISLAVSKÁ L., MOULIS P., KVASNIČKA R., ROJÍK S., TICHÁ I.: Who spends the most money at farmers' markets. – *Agricultural Economics – Czech* 2019, Vol. 65, No. 11, pp. 491-498; doi: 10.17221/69/2019-AGRICECON.

In recent years, direct sale of agricultural products by farmers has been growing dynamically. This is linked with the negative impact of industrially produced food on the health of societies and the natural environment. Local markets where producers sell agricultural products directly to consumers are the method of shortening the food chain while at the same time allowing to purchase fresh, healthy, and organic food made in compliance with ethical principles. At the same time, they become a space to establish and maintain social relationships, implement lifestyles, interests and a form of spending time. The authors of the article identified four major customer segments in local agricultural product markets: product-oriented, individual social responsibility-oriented, entertainment and emotion-oriented, and alternative food-oriented (e.g. vegan, gluten-free, vegetarian). These categories of consumers were analysed based on the data from surveys conducted in 2018 among 239 buyers in three local markets in Prague. The exploratory factor analysis method and the structural equation modelling method were used to identify the motivations of those visiting these places. The amounts of money spent by the identified groups of customers on local food were also analysed. The studies conducted showed that the largest amount of funds for such products were allocated in the segment of impression and emotion-oriented and product-oriented persons. Therefore, the results of the analyses suggest that modern food consumers are increasingly looking for not only fresh, healthy, high-quality products, but also visit local markets, marketplaces, places of direct sale due to their specific atmosphere and to consume food on the spot or to purchase other products (e.g. flowers). It was also found that customers looking for impressions and emotions spent less money on high-quality food. (M.D.)

ROTZ S., DUNCAN E., SMALL M., BOTSCHNER J., DARA R., MOSBY I., REED M., FRASER E.D.G.: The politics of digital agricultural technologies: a preliminary review. – *Sociologia Ruralis* 2019, Vol. 59, No. 2, pp. 203-229; doi: 10.1111/soru.12233.

Digital technologies are developing and widely used in all links in the agri-food chain, whereby the political effects of technical progress in agribusiness is not analysed. The article provides an overview of positions on the analysis and assessment of technology systems and big data sets used currently in agriculture. It contains the comments on the digital revolution and indicates the usefulness of political economy to understand the challenges related to managing technologies and data systems in agriculture. These challenges include the following issues: data ownership and management, production of technologies and information collection as well as cybersecurity. Based on the literature and selected examples, the authors point out how it is possible to participate in a debate on the digitisation of agriculture in order to support the interests of more farmers and protect the natural environment. They highlight the serious tensions between digital

technologies and agro-ecological approach to agriculture. They make wide audience more familiar with the assessment of digitisation of the agri-food sector in the light of the assumptions of political economics. According to the authors, existing discussions on new technologies in agriculture have focused too much on technical aspects, and have not paid enough attention to the agroecological aspect. (M.D.)

RÜBCKE von VELTHEIM F., THEUVSEN L., HEISE H.: Akzeptanz autonomer Feldroboter im Ackerbaueinsatz: Status quo und Forschungsbedarf (Acceptance of use of autonomous robots in field crops: status quo and demand for studies). – Berichte über Landwirtschaft 2019, Band 97, Ausgabe 3.

Autonomous and precise technologies are becoming increasingly important in many sectors of the economy, including agriculture. The authors of the article attempted to answer the question on the potential held by German agriculture as regards using autonomous robots in field crops. The studies focused mainly on the literature studies: 35 articles on field robots and 11 articles on the acceptance of use of precision technologies in agriculture. The results of the studies showed that farmers show little acceptance (interest) in the use of field robots, but at the same time show a strong interest in the use of other precision cultivation technologies (e.g. GPS). (P.S.)

SCHUKAT S., HEISE H.: Kostenkalkulationen verschiedener Szenarien der Initiative Tierwohl im Bereich der Schweinemast am Beispiel eines 1.920er Mastschweinestall (Cost accounting in various scenarios on welfare of pigs on an example of a pighouse with 1,920 animals). Berichte über Landwirtschaft 2019, Band 97, Ausgabe 3.

The initiative on improving welfare of livestock is aimed not only at improving the conditions of keeping animals, but also at improving the quality of meat throughout the marketing chain (value added chain). The farms participating in the project are implementing the precisely defined solutions, which, however, entail additional inputs and increased costs. In order to cover these costs, farmers receive specific financial support. The authors of the article attempted to analyse the level of total costs on a selected farm, whose pighouse has space for 1,920 fattening pigs. The objective of the study was to obtain an answer whether financial support was sufficient to cover the rise in the costs associated with the accession to the programme. The results of the studies in various scenarios for improving welfare of pigs clearly showed that the accession to the programme was economically beneficial for the farm. (P.S.).

SZYMAŃSKA J.: Sytuacja na rynku ziemi rolniczej w wybranych krajach Europy Środkowo-Wschodniej (wybrane problemy). (Situation in the agricultural land market in the selected Central and Eastern European countries (selected problems)). – Scientific Journal of the Warsaw University of Life Sciences: Problems of World Agriculture 2019, Vol. 19, Issue 3, pp. 97-107.

Agricultural land resources in the EU in 2015 amounted to more than 184 million ha, and among the Central and Eastern European countries the largest utilised agricultural area (UAA) was held by Poland (14.4 million ha) and Romania (13.8 million ha). The remaining countries of the region (Hungary, Bulgaria, the Czech Republic, Slovakia, Lithuania, Latvia, Estonia) have the much smaller UAA. The land market in these CEE countries began to develop with the beginning of transforming their economies from centrally planned economies to market economies, i.e. in the 90s of the 20th century. The supply of agricultural land is determined by the specificities of the land market in a given country, which can constitute a natural barrier to trade. Factors creating the demand are the needs of agricultural producers, allocation of land for non-agricultural purposes, changes in the legislation governing the purchase and sale of land and treating land acquisition as an investment of capital. Based on the literature of the subject and statistical data, the author of the article discussed the factors determining the supply and demand for agricultural land in the CEE countries in the years 2005-2015. She analysed changes in the prices of agricultural land, periods of their fluctuations and reasons for their rise and fall. She concluded that the properly functioning agricultural land market in the countries analysed had not yet developed. This results from technical, economic and social problems. As a result, in the CEE countries (outside Poland), the dominant land use models are agricultural cooperatives or small state-owned farms while newly created private farms are relatively small, which means the fragmentation of the agrarian structure. (M.M.)

Developed by the Team

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