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## **DEVELOPMENT OF THE NICHE DIRECTION OF AGRICULTURE IN THE UKRAINE**

Key words: niche agriculture, small producers, development barriers, governmental policy, efficiency

**ABSTRACT.** The aim of the study was to identify the essence and trends of development of niche agriculture as a direction of the development of the agricultural activity of small agricultural producers and as a way to increase their competitiveness and positioning on the agricultural products market against a background of polarization processes and the duality of the agrarian sphere of the economy in the Ukraine. The subject of the study is theoretical and practical aspects of the processes of niche agriculture development in the Ukraine with an identification of the main reasons that inhibit it. The scientific dialectical approach to eco-phenomena, analysis and synthesis in combination with induction and deduction methods, as well as a topic literature review were used during the research. It is established that, under conditions of agricultural polarization in the Ukraine on two groups of producers – large and small ones, the niche direction of agricultural development, already quite noticeable and diversified in the Ukraine, can be a real way to increase the ability of small businesses to survive economically and significantly increase their level of profitability. However, the further development of this direction can achieve sufficient pace and effectiveness, if it is provided by the purposeful activity of government, aimed at eliminating barriers to the development of niche agriculture.

### INTRODUCTION

The development of niche agriculture for the Ukraine is relatively new as, in its modern form, it can only be observed during the last 8-10 years. Yet today, it has become so tangible that it deserves appropriate attention from scientists and needs appropriate research to identify the possible ways of eliminating existing barriers to this development as a real way for small farmers to survive and improve the structure of the country's food supply under harsh market conditions and dualization processes in agriculture. Without claiming a definitive solution to the problem of niche agriculture in the Ukraine, this article may represent some contribution to the development of a scientific basis of this phenomenon through the results of analysis and the generalization of existing thoughts on the importance of the niche direction in agricultural development, the identification of the most common types of niche agriculture and the main reasons for the slow down of the further and faster spread of this direction. This article is the logical continuation of the results of research of

authors of the state and the prospects of development of Ukrainian agriculture, initiated in previous editions of PAAAE materials [see for example Cherevko 2019].

## MATERIAL AND METHODS

In the course of the research the results of processing information from official statistical sources and materials of scientific and practical publications of Ukrainian and foreign scientists concerning the coverage of the basic aspects of the essence, significance, features and experience of the development of niche agriculture were studied, systematized and synthesized.

In conducting scientific research, the rather widespread dialectical approach was applied in combination with the historical and logical method of unity in the study of economic phenomena, which allowed to study the nature and features of niche agriculture as a way of the development of small agricultural producers. The use of methods of analysis and synthesis has made it possible to determine the state of niche agriculture in the Ukraine and identify major barriers **which are currently hindering the further expansion of this direction** of branch development. The widespread use of the monographic method of research and the method of comparisons made it possible to discover the most common types of current niche agriculture and, in combination with methods of induction and deduction, identify major barriers to the further development of niche agriculture in the Ukraine.

## RESEARCH RESULTS

Scientists are paying considerable attention to the study of niche agriculture, although approaches to understanding this trend are very diversified. Niche crops in Asia and Africa are considered to be wild plants (wild food species) and animals [Bharucha, Pretty 2010]. The niche direction of agricultural development is also identified with its ecological development [Pretty 2008]. There is also the opinion that major agricultural systems are classic examples of a niche construction [Rowley-Conwy 2011]. In Polish sources, the need to look for niche crops is often mentioned, even forgotten [Krajevski 2018] and it is suggested that, perhaps in a few years, today's niche plants will be the strength of Polish agriculture [Bogach 2017]. However, so far organic production in Poland is carried out on only about 4% of all arable land, which is why it is considered to be niche [Miasto-2077 2015]. Regarding the expediency and economic benefits of niche agriculture, too, as D. Crowder and J. Reganold from Washington State University estimate – if the supply of organic products in the market were doubled, then prices for it and inorganic niche products would be almost equal [AgroPolska 2017].

In the Ukraine, only recently, among scientific publications, as a reaction to ongoing real practice, the results of studies of niche cultivation development, as an alternative to large-scale ones, show that these types of agribusinesses are beginning to emerge. Today Sergii Volodin [2017], Natalia Karasiova [2017], Yurii Kernasyuk [2018, 2019a,b], Ihor Kovalenko [2019], Petro Skrypchuk et al. [2017], Lyudmila Udova and Kateryna Prokopenko [2018], to a certain extent, conduct systematized investigations of niche agriculture in the Ukraine

It is noted that the characteristic features of niche cultures are the underdevelopment of a specific market, excess of demand over supply, high purchase prices and a high level of profitability and relatively low competition in domestic and foreign markets [UHBDP 2017a]. Niche crops (products) are all non-exchange crops that are consumed by not mass consumers, so they have limited demand but also the low price elasticity of demand, that is, the price of niche products can far exceed the price of, so to speak, conventional ones and is often determined by intangible qualitative characteristics such as: taste, bouquet, “utility”, “health”, etc. [Aristov 2017]. These include products with a high proportion of intellectual value added and in sales prices such as cheese, alcoholic beverages and meat specialties. An important feature of niche crops is that they are usually quite labor intensive and resource intensive and their production is problematic to scale [Aristov 2017]. Such crops often do not require significant investment in the organization of production but, at the same time, provide a high level of profitability [UHBDP 2017b]. Niche crops for farmers – a kind of “airbag” - guarantee additional profits and enable them to solve many agronomic problems [Medvediuk 2017]. In agriculture, niches are called crops used in crop rotation as precursors to main crops, as well as replacement culture for the sifting of dead culture. In the market niche are often defined as culture that are in high commercial or social demand, or products that require a narrow consumer segment [Volodin 2017, p. 46].

Such criteria provide a basis for being assigned to a group of niche crops already grown in the Ukraine, such as blueberry, bigblueberries, asparagus, cranberries, raspberries, honeysuckle, blackberries and strawberries, mushrooms, almost all legumes, in particular - lentils, chickpeas, mung beans, beans and even peas. Vermiculture and beekeeping look like effective directions of niche agribusiness today and in the near future [Cherevko 2018a, p.13-14]. According to the results of a monographic study of current practices, it is possible to add to the list the breeding of snails, snakes, frogs and ostriches as well as the growing of goji, yurga, dogwood, artichokes, lavender and other medicinal herbs, miscanthus, sisyphus, azimines, persimmons, hazelnuts, amaranth, edible flowers, truffles, actinidia, lentils, safflower, chufa, pao-pao and other exotic tropical fruits, pistachios, ginger, hops, arugula, stevia, fennel, nigella and honey production.

There are 32,000 small farms in the Ukraine. Nearly half of them are between 20 ha and 100 ha and for them to grow non-common niche crops may be quite attractive [Kernasyuk 2019a]. When running a niche business, it is possible to use small land resources, quickly change specialization, obtain maximum income without requiring significant initial investment [Vegetables and Fruits 2017].

The importance of niche agriculture is increasing as a result of growing world popularity of the so-called middle-class consumption model, that is, there is increasing demand for consuming value-added food based on niche products [Udova, Prokopenko 2018, p. 103].

According to the results of peer reviews, overall, the acreage under main niche crops in the Ukraine in 2018 reached about 252.6 thousand ha, or almost 1% in the structure of all acreage [Cherevko 2018b, p. 58]. Mustard acreage reached 57.9 thousand ha, sorghum – 43.1 thousand ha, beans – 39.8 thousand ha, oil flax – 32.1 thousand ha. Chickpeas, mung beans, ranks, horse beans, and lentils were sown as a whole on an area of 79.7 thousand ha [Agro-business 2018]. The results characterize the cultivation of niche crops as a profitable alternative to high-profitable grain and oilseed [Kernasyuk 2018].

According to Pro-Consulting, growing chickpeas pays off in less than 2 years [Agroportal 2018]. Asparagus profitability is 300% [SuperAgronom 2018a]. 1 ha of saffron, as well as 1 ha of asparagus, can yield over EUR 15 thousand, sugar corn – EUR 5 thousand, while traditional sugar beets – maximum EUR 2 thousand. Niche crops diversify crop rotation, thereby improving phytosanitary conditions in fields and soil conditions. They diversify production, reducing the financial risks of the enterprise and insuring producers in the event of crop failure [SuperAgronom 2018b]. In addition, most niche cultures are characterized by valuable nutritional and fodder abilities, which actively shapes retail demand for them [Kovalenko 2019, p. 51].

However, as the results of the study of the practice of existing farm functioning, dealing with niche products, today there are many problems that are holding back the development of this direction of agriculture. The first is related to the need to find reliable and stable markets. In the Ukraine, for example, the consumption culture of niche products is practically absent.

An important constraint is a lack of experience and lack of information needed to grow a particular niche crop – not everything is so easy to find on the Internet. The existing advisory service in the Ukraine is more symbolic than practical. It is extremely difficult for small producers to come up with niche products abroad. In addition, the technology of rapid deployment of niche products, the so-called fastplant technology [Volodin 2017, p. 54] is not well known. There are even more problems with proper product certification, especially when it concerns environmental friendliness or organic nature [Karasiova 2017, p. 17]. In addition, the technologies of niche crops growing and proper necessary resources are expensive. It takes a few years to come up with projected profitability. Most niche cultures are characterized by gigantic price jumps, so the producer feels rather uncertain in this sector and traditional crops are more reliable and stable in this respect [Kovalenko 2019, p. 51]. Therefore, it is not necessary to consider a niche agribusiness as a panacea for solving all problems of agricultural economy or problems of the development of farmers – it is necessary to build a business on niche cultures carefully [AgroDay 2018].

Niche production is problematic for agriholdings, which operate over large tracts of land with wide-area technology, automated control systems and using logistics [Udova, Prokopenko 2018, p. 104]. Maybe this is why 98.5% of honey in the Ukraine is produced by family households and, on the one hand, there are serious problems with the quality of production of this niche sector of the agrarian sector of the economy, on the other - despite everything, the Ukraine continues to hold a high position among honey-exporting countries and is in the top five [Honey... 2019]. This indicates that small producers can also reach foreign markets with due diligence.

Ukraine's agriculture today is marginally dualized and polarized into very large (agroholdings) and large farms, specializing in the production of traditional export-oriented products (cereals, sunflower, rapeseed, poultry and pork) – on the one hand, and small (farm) households as well as individual households that produce all other products (vegetables, milk, berries) - on the other hand. Unfortunately, the country's agriculture does not fully fulfill its function of ensuring the country's self-sufficiency in the production of raw materials for the production of foodstuff and maintaining its optimal structure – out of 40.3 th agricultural enterprises only 6.5% produce livestock products, incl. milk

production – only 3.2%. According to statistics, in 2014-2018 there was a decrease in the annual consumption of food by the population: meat – 4%, milk – 12%, eggs – 12%, and total calorie intake decreased by 8% [Sabluk, Luzan 2019, p. 11]. In spite of this, the agriculture of the Ukraine is an industry that mainly drives the whole Ukrainian economy, as the country receives 40% of foreign exchange earnings from the sole export of agricultural products [Export... 2019] (42,4% – 2015, 44% – 2017, 32% – 2018) [SSSU 2019]. That is why the agrarian sphere of the Ukrainian economy is very attractive to investors, including foreign ones. This is evidenced by the presence of an active process of “transfusion” of capital from other sectors of the economy into its agricultural sector in order to obtain so-called “fast money” just in the sector of large agricultural business, where the whole technological and economic process consists of a sequence of “plowed-sowed-harvested-sold”. Over the last 5 years capital investments into the agroindustrial complex have more than tripled and amounted to UAH 16.7 billion, and directly into agriculture, forestry and fisheries accounted for only UAH 3 billion. [Kernasyuk 2019b, p. 12, 13]. The sector of small producers of agricultural products in this regard, until recently, remained less attractive due to their small size and low profitability. However, the intensification of niche agriculture development can significantly increase the attractiveness of the small agricultural enterprise sector to investors. The basis for this prediction may at least be the results of calculations presented in the Table 1.

Table 1. The evaluation of the investment attractiveness of some directions of agribusiness development on the basis of the payback period in the Ukraine

Kind of agribusiness as the direction of investment	Culture		Aquaculture and fisheries	“Green” energetics	Service and diagnostics	Processing and storage
	niche	berries, fruits and nuts				
Expected payback period, years	1-2	3-7	3-8	2-5	4-6	4-8

Source: own calculations based on empirical data processing

## SUMMARY

Niche cultures can already be a factor giving strong impetus to the rural economy in the Ukraine in order to develop ecological and social spheres of rural regions on this basis, in an organic combination with the economic sphere, that is, to ensure sustainable development, as evidenced by the results of monographic investigations conducted during this study of already existing experience in the development of niche agriculture in functioning producers. However, the market itself, as an economic mechanism, devoid of elements of social justice, cannot provide the conditions for the normal development of this direction, and, in the absence of necessary conditions, no phenomenon – biological, physical, chemical or socio-economic – can develop. Small producers do not have the opportunity to provide the necessary conditions for the development of niche agriculture

because they lack the necessary resources and because of difficulties in accessing credit and public funds. Therefore, without proper government assistance, this area of agriculture will continue to have very low development rates, an uneven nature and be accompanied by a large number of economic casualties in the form of bankrupt producers who will take the risk of doing so.

The advantages of niche agriculture are its high profitability, the ability to operate on small areas of land, an extremely diversified range of crops, a high consumer value, a growing demand for niche (especially organic or environmentally friendly) products and a relatively low (or nonexistent) competition in domestic and foreign markets. These positives form a real chance for small producers to survive economically under tough market conditions against a background of the processes of polarization and dualization of agricultural production.

Negative aspects of niche agriculture are: high risks due to demand volatility, difficulties in finding reliable markets, a lack of a proper culture of consumption, a lack of awareness of potential consumers, manufacturers lack of experience, complexity of technologies and the necessity of a certain lag in development, the expense of seeds and other means, difficulties in obtaining credits, scattered manufacturers as well as a lack of cooperative ties.

The problem of niche agriculture also lies in the specifics of the nicheness itself. Culture or products remain niche until their production begins to increase, which in turn increases product supply on the market. As a result, the price falls naturally and the economic benefits of this nicheness begin to decline. However, there are three interesting points: firstly, **some niche crops will always remain niches with a scale of production impossible to scale** because of the peculiarities and specificity of cultivation and harvesting technology, as e.g. they are difficult to mechanize (saffron, truffles, quinoa, pao-pao, etc.). Secondly, there will always be a period between the moment a producer leaves the negative (in the sense of profit) zone until the mass production of this type of production begins to increase, and this period can last all life. Thirdly – these estimates do not take into account the effects associated with the negative features of conventional agriculture – environmental pollution, soil degradation, chemical contamination of food, deterioration of consumer health, which is mostly eliminated in the niche sector.

And if the government creates at least a minimum of favorable conditions, niche agriculture in the Ukraine can become a very attractive investment area for foreign investors.

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## ROZWÓJ NISZOWEGO KIERUNKU ROLNICTWA W UKRAINIE

Słowa kluczowe: niszowe rolnictwo, drobni producenci, bariery rozwoju, polityka państwowa, efektywność

### ABSTRAKT

Celem badania było zidentyfikowanie istoty i tendencji rozwoju rolnictwa niszowego, jako kierunku rozwoju działalności rolniczej drobnych producentów rolnych oraz jako sposobu na zwiększenie ich konkurencyjności i pozycjonowania na rynku produktów rolnych na tle procesów polaryzacji i dualizacji agrarnej sfery gospodarki w Ukrainie. Przedmiotem badań były teoretyczne i praktyczne aspekty procesów rozwoju niszowego rolnictwa w Ukrainie wraz ze wskazaniem głównych przyczyn, które go hamują. Podczas badań zastosowano naukowe dialektyczne podejście do zjawisk ekonomicznych, analizę i syntezę w połączeniu z metodami indukcji i dedukcji, a także przegląd literatury tematu. Ustalono, że w warunkach polaryzacji rolnictwa Ukrainy na dwie grupy producentów, tj. dużych i małych, niszowy kierunek rozwoju rolnictwa, już zauważalny i zdwersyfikowany w Ukrainie, może stać się realnym sposobem na zwiększenie zdolności małych gospodarstw do przetrwania gospodarczego i źródłem znacznego wzrostu ich rentowności. Jednak dalszy rozwój tego kierunku może uzyskać wystarczające tempo i skuteczność, pod warunkiem celowej działalności państwa, nakierowanej na wyeliminowanie barier rozwoju rolnictwa niszowego.

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