

Black Sea Basin ENI CBC programme 2014-2020

“Local Development and Cross Border Cooperation in the area of Agricultural Products and Traditional Food” “LOC-FOOD”

Study on the current situation of traditional products in Ukraine (designation, market potential)



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1. Definitions and Legislation at EU and country level

In recent times, short food supply chains and local markets, where farmers sell their produce directly to consumers or with a minimum of intermediaries, have flourished in all EU countries, both in rural and urban areas. They represent an alternative to conventional longer food chains where small farmers often have little bargaining power and the consumer cannot trace the food to a known producer or local area. On average, 15% of EU farms sell more than half of their production directly to consumers.

From producers' markets to basket delivery systems or community-supported agriculture, there is a great diversity of short food supply chains and local food systems in the EU. Their advantages include a fairer price for farmers, access to fresh and seasonal produce for consumers, a reduced environmental impact and greater social cohesion at local level. Local economies also benefit from such schemes, which have the potential to create jobs.

The current EU rural development policy 2014-2020 puts more emphasis than before on short food supply chains and defines them precisely for the first time. Producers wishing to involve themselves in local food systems can benefit from several measures co-financed by the European Agricultural Fund for Rural Development.

In 2015, research was conducted within the agricultural European Innovation Partnership on the possibility to develop those systems in order to improve farmers' incomes. In several recent resolutions, the European Parliament has also expressed its support for short food supply chains and local markets, as a way to

ensure a fair price for producers and reconnect food products with their locality of origin.

Until recently, there was no common definition of short food supply chains at EU level, although they are broadly understood as including a minimal number of intermediaries (or even none in the case of direct sales from the producer). However, as they are now explicitly recognised by the EU as an area that should be supported within EU rural development policy, they are covered by a definition in Article 2 of Regulation (EU) No 1305/2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), which entered into force with the reformed Common Agricultural Policy for 2014-2020: a short supply chain means 'a supply chain involving a limited number of economic operators, committed to cooperation, local economic development, and close geographical and social relations between producers, processors and consumers'. This definition is complemented by Article 11 of European Commission Delegated Regulation (EU) No 807/2014 supplementing the Rural Development Regulation, which stipulates that 'Support for the establishment and development of short supply chains ... shall cover only supply chains involving no more than one intermediary between farmer and consumer'.

Defining a local food system is more complex. Regulation (EU) No 807/2014 merely provides that the definition of local markets eligible for support by the The European agricultural fund for rural development (EAFRD) shall be defined in Member States' rural development programmes. In reality, local is often defined in terms of distance between the point of production and the point of sale. It can also be understood in relation to a recognized geographical area. A possible definition is given in the Joint Research Centre (JRC) 2013 scientific and policy report on short food supply chains and local food systems: 'a food system in which

foods are produced, processed and retailed within a defined geographical area' (depending on the sources, within a 20 to 100 km radius approximately). The notion of 'local' food is subjective and depends on the context of the local area: the density of population, accessibility, and urban or rural character. The term 'local' can also refer to the closeness of the relationship between producers and consumers, based on mutual trust and cooperation.

Types of short food supply chains (SFSC) and local food systems

Most studies on the subject have tried to establish a classification of the various forms of SFSC. Based on the research, it can be classified into three types:

- Direct sales by individuals,
- Collective direct sales,
- Partnerships.

Direct sales are the simplest form of SFSC and involve a direct transaction between farmer and consumer. They can take place on the farm, where the farmer has developed a shop, or outside, for example at farmers' markets. Food products can also be delivered to homes through a basket or box scheme. On-line shopping is another form of direct sale.

Producers may also cooperate to sell their products collectively to individuals or consumer groups. These direct sales can be organised on a farm or in local outlets. Local food festivals or fairs are also a good opportunity for groups of farmers to exhibit and sell their products. In most European countries, organisations of producers participate in local public procurement for the supply of local quality food products for school or hospital catering. SFSC can also be found in the form of partnerships between producers and consumers, where partners are bound by a written agreement. Such partnerships can be seen in community-supported agriculture, which exists under different names in the EU: AMAP

(Association pour le maintien d'une agriculture paysanne) in France, RECIPROCO (Relações de Cidadania entre Produtores e Consumidores) in Portugal, GAS (Gruppi di Acquisto Solidale) in Italy, SoLaWi (Solarische Landwirtschaft) in Germany.

Another approach is to classify food supply chains in two broad categories:

- traditional SFSC which tend to be farm-based, in rural areas, and are more likely to take the form of on-farm sales through farm shops, roadside sales and 'pick-your- own' systems, or sales at producer markets. They are usually operated by farming families and often use traditional and artisan methods.
- neo-traditional SFSC are more complex operations consisting of collaborative networks of producers, consumers and institutions, but they often seek to sustain traditional farming practices through new models and social innovation. Examples include: delivery schemes, urban-located farm shops, collectively owned farming systems usually located either in the city or on the urban fringe. They can be seen as local food movements that are often driven and supported primarily by urban residents. There is a large variety of SFSC and local food systems across the EU, and nearly all types of organisation can be found in every part of the EU. Variations can be found in each organisational type: selling a single type of product or a range of products; cooperatives, voluntary sector or private businesses; selling on the internet; adding products from other farms to one's own supply, etc.

EU support to SFSC and local food systems

EU rural development policy, funded by the European Agricultural Fund for Rural Development (EAFRD), has been offering measures to help in setting up and developing SFSC and local food systems through support for investment, training, the LEADER approach [1] and organisation of producers. A wide range of

measures and combinations of measures can be mobilised by Member States and regions to support projects along the food supply chain.

Of the six main EU priorities for rural development, set out in Regulation (EU) No 1305/2013, Priority 3 relates to the food chain organisation promotion. It is subdivided into two focus areas, Focus Area 3A, 'Improving competitiveness of primary producers by better integrating them into the agri-food chain through quality schemes, adding value to agricultural products, promotion in local markets and short supply circuits, producer groups and organisations and inter-branch organisations', and Focus Area 3B, 'Risk management'.

The Agricultural European Innovation Partnership (EIP-Agri) contributes to the Europe 2020 strategy for smart and sustainable growth. It was launched in 2012 and aims at fostering competitive and sustainable farming and forestry that achieves 'more and better from less'. In 2015, the European Commission launched the EIP-AGRI Focus Group on Short Food Supply Chains to conduct research on the way to 'stimulate growth of short food supply chains in Europe, both in terms of numbers of producers involved and volumes traded, to increase farm income'. A group of 20 experts analysed the different SFSC in Europe and concluded that collaborative SFSC offers the most potential for scaling up. This type of food system, where several farmers, organisations or individuals agree to work together, offers many benefits, such as an improved product range for consumers, resource sharing amongst producers and processors, increased negotiating power, reduced competition between small producers, and mutual support. Their final report identifies possible solutions to the technical, organizational and financial barriers to the scaling up of SFSC.

The labelling issue

Across the EU, a wide variety of local or regional labels have been developed

so that consumers can identify agricultural products with local provenance. It is shown [2] that a huge majority of citizens agree that such labels are useful. However, given the proliferation of brands and labels, some studies suggest 'label fatigue' and distrust of food assurance schemes.

In this context, the issue of a European label for local products has been on the table for the last few years. The Committee of the Regions, in its 2011 Opinion on 'Local food systems', recommended the adoption of a European labelling scheme. Furthermore, the Agricultural Product Quality Scheme Regulation (2012) includes a request to the European Commission to draw up a report on a possible 'new local farming and direct sales labelling scheme to assist producers to market their produce locally'.

Requirements for the food products traceability implementation in Ukrainian legislation

In Ukrainian legislation, the requirements for the product tracing of raw-materials/food products are mentioned in the Law of Ukraine "The Basic Requirements for Food Safety and Quality" (December 23th, 1997 № 771/97-VR, in the edition of 16.01.2020) [3]. Thus, in accordance with paragraph 74 of Art. 1 of this document: "product tracing - the ability to identify the market operator, time, place, subject and other conditions of delivery (sale or transfer), sufficient to establish the origin of food, animals intended for food production, food contact materials, or substances intended for inclusion or expected to be included in foodstuffs at all stages of production, processing and circulation". However, the term " product tracing " used in the Law does not fully correspond to the term from Regulation (EU) 178/2002. Thus, in this Regulation (EU) reference is made specifically to foodstuffs, feed, animals intended for the manufacture of foodstuffs or substances intended for inclusion or expected to be included in foodstuffs or

feedingstuffs. And the definition contained in the Law makes a reference to the market operator.

The information that is provided using the traceability system helps:

- improve and reduce the cost of food recall;
- provide the food consumer with accurate information, for example, about the origin of the food;
- improve the risk assessment by the controlling (competent) body.

Requirements for food market operators to ensure traceability are given in Art. 22 of the mentioned law. It stipulates that market operators must be able to identify other market operators who supply them food on a "step back" basis, as well as other market operators to whom they supply food and other facilities based on the principle of "step forward". According to the law, the information necessary to ensure traceability must be kept for six months from the end date of sale of the food product marked on the label. However, this document does not require the introduction of internal traceability by food market operators and does not set special requirements for food labeling to ensure traceability.

At the same time, it should be noted that in order to ensure the highest standards of food safety and effective implementation of the farm-to-table principle, food must be traceable along the entire food chain, and therefore both external and internal traceability is required. The presence of internal traceability is one of the elements of the effective traceability system.

Taking into consideration that Ukrainian legislation currently provides only minimum requirements for traceability, market operators interested in implementing an effective traceability system, which can include the best European and world practices.

Due to this to ensure food traceability the main steps for the Ukrainian market operators should be:

- implementation of the legally established requirement "step back - step forward";
- consideration of the possibility of internal traceability implementation at the enterprises and determination of the necessary information to be recorded and collected according to this requirement, based on the size of the enterprise, the type of produced products and the type of raw-materials used in production;
- the batch determination for the raw-materials used for food products production by the food market operator to capture the movement of the food along the food chain;
- creating and maintaining accurate traceability accounts that can be provided over a short period of time for planned control or investigations at the request of the competent authority.

To develop an effective traceability system at a single enterprise, the following recommendations, given in the Bulletin [4], which offers a two-step approach, can be used:

Step 1 - the operating diagram development

It is important to determine how stable information providing will be ensured at all stages of the production process.

Step 2 - preparing instructions for each activity shown in the operating diagram.

Also the effective solution should be to use the approach set out in [5], which provides step-by-step advice on developing traceability systems in a single enterprise and includes the following stages:

- 1) determination of the volume of the traceability system;
- 2) determination of the optimal batch size;

3) determination of the required information for the traceability system, including:

- a) the information about the food ingredients used by the food market operator;
 - b) the information on internal processes necessary to maintain traceability during food processing or preparation, where applicable;
 - c) the information that should accompany the process of distribution of food products produced by the food market operator;
- 4) determination of the storage period of the necessary information for ensuring traceability, and development of the data removal procedure;
- 5) development of a procedure for checking and testing the traceability system;
- 6) registration of ion the traceability system supporting documents.

2. Country Profile: Ukraine

2.1. *An overview at the physical and demographic aspects of the eligible area*

Ukraine is a country located in Eastern and Central Europe. It is bordered by Russia to the east and north-east; Belarus to the north; Poland, Slovakia and Hungary to the west; and Romania, Moldova and the Black Sea to the south. It is the second-largest country in Europe on its area (603,628 km²) [6]. The geographic center of Europe is located in Ukraine - near the Rakhiv city, Transcarpathian region. Ukraine is divided in 24 administrative regions, 1 autonomous republic (Crimea) and 2 cities with special status: Kyiv and Sevastopol (fig. 1).



Figure 1. The administrative regions of Ukraine

The eligible areas for the Black Sea Cross-border Cooperation Program are South East regions – Odessa, Mykolaiv and Kherson regions.

Odessa region is a coastal and border region of Ukraine, located in the extreme southwest of the country.

The state borders of Ukraine with Romania and Moldova pass through the territory of the region. In the south, Odessa region faces the Black Sea. The length of sea and estuarine coasts from the Danube creek to the Tiligul estuary reaches 300 km.

Along with an especial favorable transport and geographical location, Odessa region has favorable conditions that generally form a high natural resource potential of the region. The main natural wealth of the region is its land resources, which are represented mainly by chernozem soils with high natural fertility. In addition to the warm steppe climate, these factors form a high agro-industrial potential of the region.

Warm sea, therapeutic mud, mineral waters, sea beaches create an exceptionally high recreational potential of Odessa region. In the lower reaches of large rivers (Danube, Dniester) and estuaries, on the coasts and in the shelf zone there are valuable unique natural complexes, wetlands, ecosystems that form a high biosphere potential of the region, which characterized with national and international importance.

Mykolaiv region is located in the steppe physical-geographical zone, mainly within the Black Sea lowlands. In the west it borders with Odessa region, in the north - with Kirovograd, in the east - with Dnepropetrovsk and Kherson regions. In the south, the region is washed by the Black Sea. The main water artery of the region is the Southern Bug river, 257 km long within the region. The climate is temperate continental with mild snowless winters and hot dry summers.

Kherson region is located in the south of Ukraine. In the east it borders with Zaporizhia, in the south on Sivashev and Perekopsky isthmus - with the Autonomous Republic of Crimea, in the northwest - with Mykolayiv, in the north - with Dnipropetrovsk regions of Ukraine.

The territory of Kherson region is located in the Black Sea lowland, in the steppe zone, on both banks of the lower reaches of the Dnieper. It is washed by the Black and Azov seas.

2.2. *The production system*

Agricultural production

Agriculture plays an important role in the Ukrainian economy. Ukraine has very favorable climatic conditions (fertile Ukrainian chernozems, a long vegetation period, sufficient moisture), as well as demographic conditions (a sufficiently high density of rural population settlement) to achieve high rates in agricultural production. In Soviet times, Ukraine was considered an all-Union breadbasket, the area of its arable land is about 32 hectares, which is approximately 1/3 of all arable land in Europe. In 2014, Ukraine became the sixth country in the world for grain exports, the third for the supply of corn, and the first for the production of sugar beets and carrots in Europe. The main branch of specialization in agriculture in Ukraine is crop production, with preference given to the cultivation of industrial and fodder crops (sugar beet, sunflower, etc.). Cereals are Ukraine's main crop (15.5m ha) followed by sunflower seeds (4.5m ha). For both crops Ukraine is an important exporter. Cereal yields are half of the EU's average.

As of the end of 2019, the agricultural sector brought the country almost 40% of foreign exchange earnings, demonstrating stability over the past three years (fig. 2).



Figure 2. Ukraine's place in world exports

Producing 90-100 million tons of grain crops annually, Ukraine maintains a leading position in the world. At the same time, the country is the third largest exporter of grain in the world (annual exports are 50-60 million tons). So, according to the State Customs Service, at the end of April 2020, Ukraine has already exported about 50 million tons of cereals, legumes (with their processed products) and flour.

As for the harvest and export of sunflower, Ukraine has no equal in this area in the whole world. It is produced 10.5 million tons of sunflower, which is almost a third of all sunflower seeds produced in the world - 27% of global production. Additionally Ukraine possess first place in the export of sunflower oil - 3.3 million

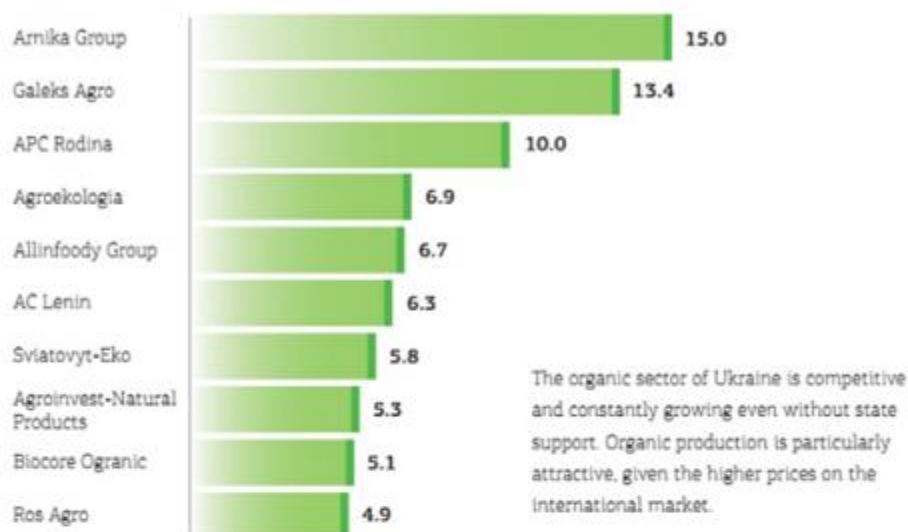
tons per year. Other positions of Ukraine in the global food market are as follows: 4th place in the volume of corn exports (16.7 million tons). 5th in terms of barley exports (2.3 million tons) and 7th place in terms of barley production (9.1 million tons).

For nowadays one of the main problems in the agricultural sector is the negligent use of the most valuable resource in Ukraine. Lands suffer from various types of degradation: loss of fertile layer, erosion and pollution. More than half of all are subject to soil erosion fertile lands of Ukraine.

Organic farming

According to the monitoring conducted by the Ministry of Economy, in 2019 the total area of agricultural land with organic status and transition period amounted to about 468 thousand hectares (1.1% of the total area of agricultural land in Ukraine). At the same time, there were 617 operators of the organic market, 470 of them were agricultural producers.

Top 10 companies by organic farmland area, thou. ha



Organic farmland area by crops in 2019, thou. ha



The largest area, 133.4 thousand hectares, is occupied by grains production. Within the last 10 years, the area allotted to organic production has increased by 39 thousand hectares.

Today, the domestic consumer market of organic products in Ukraine continues to expand through the main supermarket chains. The main types of

organic products produced in Ukraine are cereals, milk and dairy products, cereals, meat and meat products, fruits and vegetables.

Export. It should be mentioned that Ukrainian organic products are bought mainly by EU countries. In 2019, Ukraine ranked 2nd out of 123 countries in terms of imports of organic products to the EU, rising two places compared to the previous year.

Thus, in 2019, 3.24 million tons of organic agri-food products were imported into the EU, more than 10% of which are Ukrainian. At the same time, Ukrainian imports to the EU increased by 27% - from 265.8 thousand tons in 2018 to 337.9 thousand tons in 2019.

Animal husbandry

Animal husbandry is an important branch of the national economy that provides the population with food, processing industry - raw materials, as well as contributes to the creation of the necessary state reserves of livestock farming products, intensive use of land resources. But the actual state of the industry now does not correspond to its potential and needs additional attention by the state.

Animal husbandry market has its own characteristics in Ukraine:

- qualitatively stands out among other markets by a set of goods sold on it. Cargo grouped into certain groups, such as: meat and meat products, milk and dairy products, eggs;
- has a high level of interchangeability and low income elasticity, and conditionality of volumes production of goods is provided not only by effective demand, but also physiological consumption norms;
- it sells essential goods - food that has essential for human existence;

- it is a determining result of the functioning of agriculture and processing industries;
- continuity of market functioning, which is caused by the need to meet daily needs in nutrition;
- products of all manufacturers are relatively homogeneous.

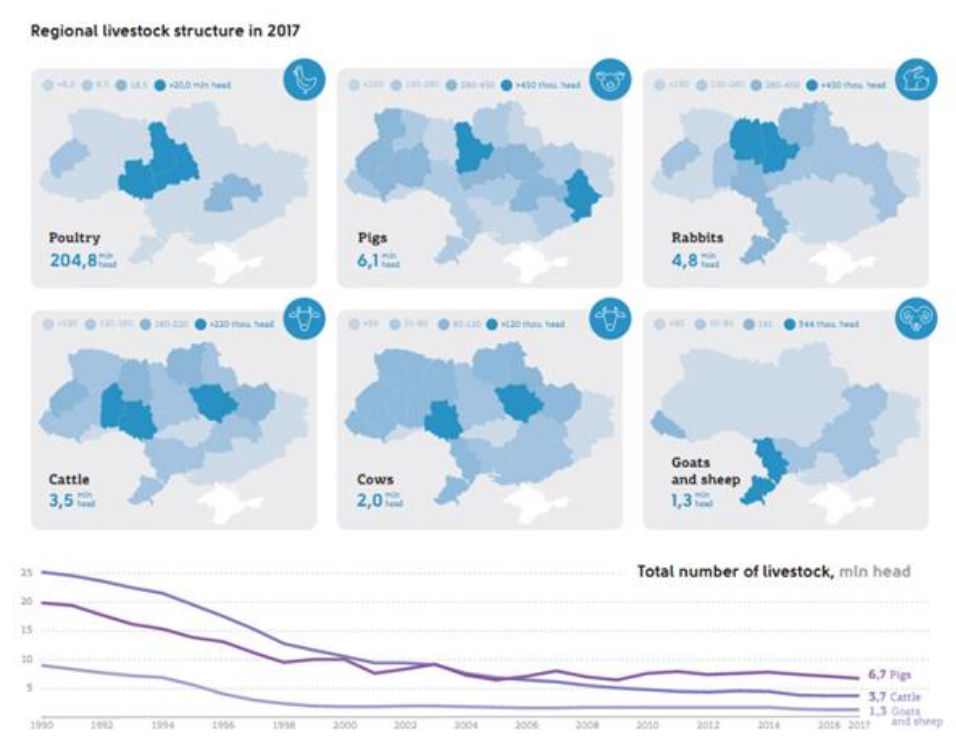


Figure 4. Livestock sector in Ukraine

As of May 1, 2020, the number of cattle in Ukraine amounted to 3.45 million heads, which is 6.8% less than on the same date in 2019 (3.69 million heads). This is evidenced by the data of the State Statistics Service. The number of cows by the indicated date decreased by 6.5% - to 1.78 million heads, while in 2019 in the same period it was 1.91 million heads. The number of pigs, in turn, decreased by 6.2% - to 5.76 million heads (6.13 million heads a year earlier), the number of sheep and goats - by 6.7%, to 1.47 million heads (1, 57 million heads).

According to the data, the poultry population in the country also decreased by 1.2% compared to May 1, 2019 - to 207.86 million heads. In the same period last year, the poultry population in all agricultural enterprises in Ukraine reached 210.39 million heads.

The agro-food industry

Under the influence of modern European integration processes and strategies of reforming Ukraine new principles of national economy development are created. In this aspect the agro-food industry in this aspect acts as a lever to ensure food security of the country, forms a strong export potential.

Around 15% of the total annual industrial production of the Ukraine is from the food sector. Food production is a key part of Ukrainian export policy. The food industry exports products such as cheese, dairy, sweets and alcoholic beverages (beer, wine and vodka) to Europe.

Food production is closely connected to further development in the agricultural sector. Implementation of innovative technologies in production and manufacturing processes in both these fields may bring a major breakthrough and comprehensively increase the profitability of the sector.

The food industry unites more than 40 subsectors and manufactures. The main subsectors are flour and cereals, sugar, meat, dairy, baking, oil and fat, fruit and vegetables, alcohol, and fish.

More than other industries, the food industry is associated with agriculture, as it receives from it raw materials (grain, sugar beets, milk, potatoes, meat) and returns waste to it. Thus, the enterprises of sugar, butter, wine, canning gravitate to the sources of raw materials, flour, baking, dairy, confectionery - to the consumer.

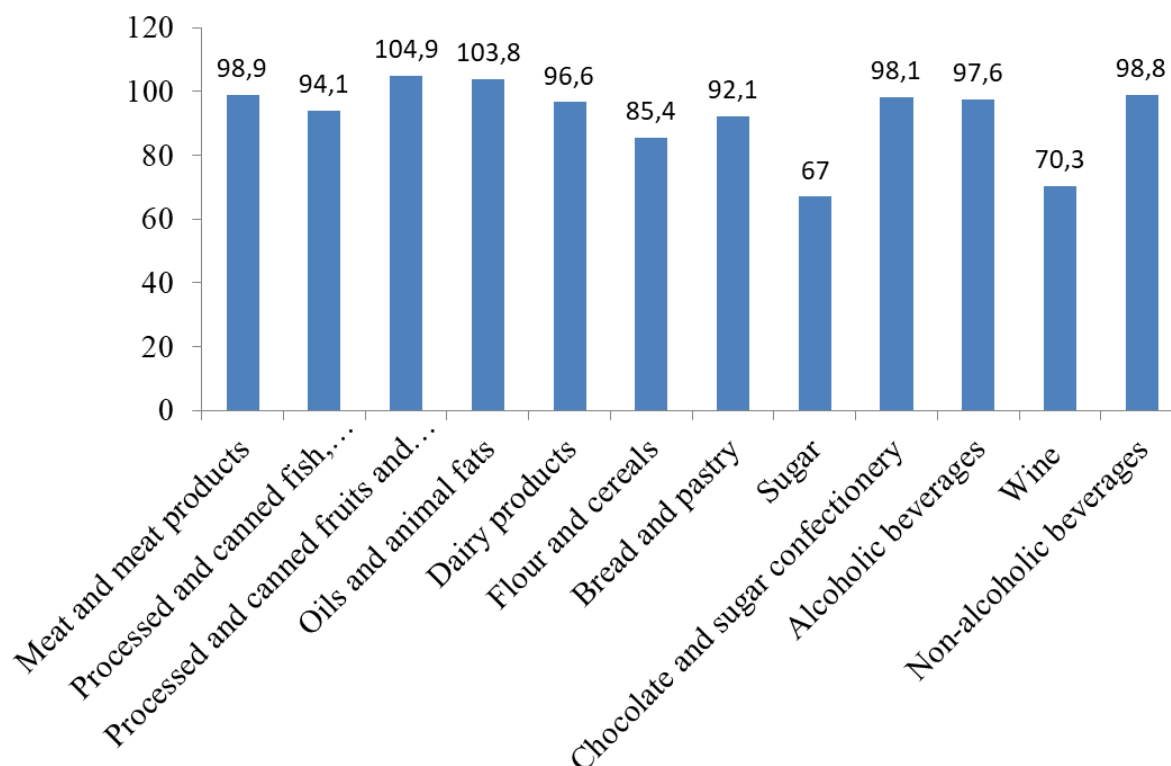


Figure 5. Indices of industrial production in agro-food sector (2020 to 2019),%

Key challenges for the further development of Ukraine's agro-food sector are related to the improvement of the overall business environment, regulatory restrictions on land ownership, inconsistent food safety standards (with international standards), limited access to credits.

3. Panoramic view of typical regional products: brands, certifications, traditional cooking recipes

In the Odessa, Nikolaev and Kherson regions, which are geographically located around the Black Sea basin, there are no original local (with a clearly traceable history) animal species or plant varieties. The peculiarity of the products grown in this regions creates a complex of unique natural conditions in each individual regional location (landscape, microclimate, soil, water, wind rose, etc).

3.1. Traditional products of the eligible area

Agroproducts produced in the eligible area

Odessa region

Specie of karakul sheep, LLC "PCC" BORODINO-A", Frumushika Nova, Tarutinsky district

In 2006, the construction of a sheep complex for 5000 species of karakul sheep began in Tarutinsky district. After 2 years, 70% of buildings and structures were built. In 2009, the livestock of the sheep complex exceeded up to 5000 heads. And at the beginning of 2010, there were more than 8600 heads in the Borodino group of enterprises.

Karakul sheep are fat-tailed coarse-wooled milk-meat sheep. It is known that it was bred in Central Asia through skillful selection, in favorable natural conditions and feed for raising sheep.



The farm is carrying out in-depth selection and breeding work on the creation of factory flocks of black, gray and colored sheep. The task was also set to bring out the breed type of severe color, two factory species of black and gray colors, as well as the factory type - moire. Due to the scientific selection work

carried out, the farm receives a large number of lambs with excellent quality fur (smushki).

Smushki - fur removed from the 1-3rd day after birth lambs of the karakul specie. A karakul smushki is a thick, elastic, silky and shiny hairline, which forms dense curls of various shapes and sizes: rolls, bean-shaped, etc. The most valuable are fur with rolls, arranged in parallel-concentric or straight rows.

In 2009, the smushki were sent to Italy for sewing fur products according to patterns purchased from the world's leading fashion designers. The sent fur received an assessment of 8 points on a 10-point system among specialists and fashion designers participating in the exhibition "MIFUR" (Italy, Milan). This is one direction of vertical integration of the company. The other one is the production of cheese «bry`nza»—a brine-cured sheep's milk cheese.

Tomato “Prima donna”, Utkonosovka

Tomato “Prima donna” is an early ripe, high-yielding hybrid of a tomato of the Transnistrian selection mainly grown in greenhouses. These vegetables are

heart-shaped with a pronounced sharp tip - "nose". They are characterized with rich red color at the stage of maturity, their pulp is dense, the skin is thin and elastic. The average weight of one tomato is 100-130 grams.

Tomatoes "Prima donna" are characterised with sweet taste with sourness. Tomatoes are in stable demand and are better known to customers under the name



"Utkonosovka tomato". The specific taste of tomatoes is given by the unique natural growing conditions (mainly the water provided from lake Katlabukh, which is used for irrigation). Most private households in the mentioned village has been exclusively

cultivating this tomato variety for over 40 years.

Tomatoes "Prima donna" are equally can be used for fresh consumption, their aroma and delicate pleasant taste will become the highlight of any salad, while they are also suitable for heat treatment, for preparing tomato paste, ketchup, juices, lecho and salads as a canned food.

Peaches Red Haven, Favorite, Collins and Cardinal varieties (villages Udobnoe, Kazackoe, Starokazach`e)



Mentioned peach varieties have been growing in the villages Udobnoe, Kazackoe, Starokazach`e for 40 years. For more than a decade, the region has been known as the "peach paradise" or "peach capital" of Ukraine. Peaches are

characterised with high amount of juice and special aroma, which are due to the natural microclimate of the Dniester valley, in the place where the river flows into the Dniester estuary.

Large-fruited sweet cherry (village Troytskoe)



Farmers have been engaged in the cultivation and selection of sweet cherries since the second half of the nineteenth century. Initially, the first seedlings of fruit trees of the Melitopolskaya large-fruited variety were brought from the Zaporozhye region. Over the hundred years of breeding work, the variety has got characteristic features which essential only in this geographical location due to the fertile soils and microclimate of the Turunchuk river valley.

Danube Delta Strawberries (area between cities of Vilkovo and Kiliya)



These type of strawberries are resistant to traditional diseases and therefore are not sprayed with pesticides. The smell of berries is rich, bright, pronounced, felt from afar. And it cannot be perfect - it is an organic product, with its own small flaws, endowed with nature.

Walnut and rosehip (Cooperative "Black Sea Walnut", Troitskoe village)



Cooperative "Black Sea

Walnut" was founded in 2012 to plant a mixed walnut and hazelnut gardens. The enterprise is located in the Belyaevsky district of the Odessa region. Rosehip is also experimentally planted.

Mykolayiv Region

Teruar honey from the banks of the Southern Bug river ("Honey Brothers", Migia village)



The apiary is located in the northern part of Mykolaev, namely, in the steppe of the Pervomaisky district. This is a very interesting place to collect honey due to the presence of sunflowers, many wild herbs and flowers, acacia groves, and, in addition, the unique flora of the Granite-Steppe Pobuzhie Reserve.

Oysters (Scythia Oysters Farm, Chervonoukrainka village)



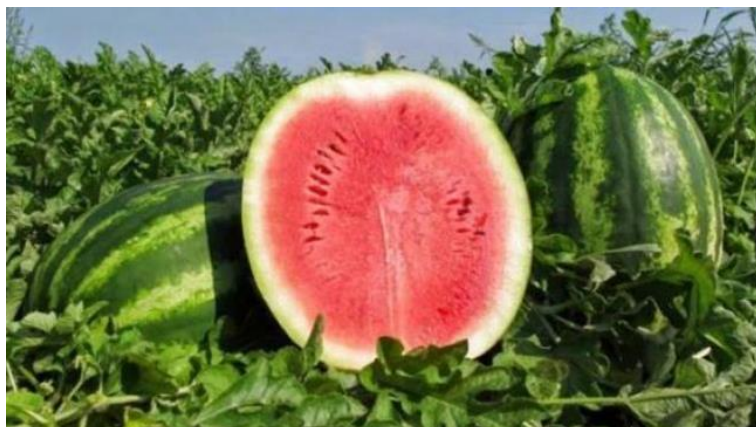
Scythian oysters are grown in the waters of the Tiligul estuary in an ecologically clean place on the border of the Mykolaev and Odessa regions, directly in the natural national park, which once again confirms the environmental friendliness and safety of the water area where the oyster produced.

Benefits of Scythian oysters:

- freshness. Unlike an imported oyster, which is delivered to the local market in 4-5 days, and then is provided to consumer, local oyster has the freshest taste and aroma of the sea. This product is characterised with unique delicate taste with sweet nutty and cucumber aftertaste. The Black Sea has a lower salinity (17-18) compared to the waters of the World Ocean. This means that Ukrainian oyster is refined all its life (about 16 months). This is what gives local oyster its delicacy.
- uniform filling of meat;
- slim and aesthetic sink. It's no secret that the size range of an oyster (from 5 to 0) is determined by its weight. The thicker the shell, the less meat as a percentage of its total weight.

Kherson Region

Kherson watermelon (Association of Kherson watermelon producers, Kherson city)



Kherson region has its own regional features: climatic and soil conditions are the most optimal for growing watermelons. They are not only big and tasty, but also have medical effect.

The Crimean Tatars brought watermelons to the Kherson region. In the middle of the 19th century, fruits were grown on the territory of Aleshek. In 1969, an experimental station for melon growing was founded in Golaya Pristan, new hybrids and varieties of watermelons are being bred here.

Kherson watermelons are in demand not only in Ukraine, but also in Lithuania, Estonia, Latvia, Belarus, Poland, Germany, Romania and Denmark. In 2019 4.67 thousand tons of watermelons worth almost a million dollars were exported from the Kherson region.

Saffron (farm "Lyubimovsky Saffron", Lyubimovka village)



For the seventh year in a row, the most expensive spice in the world - saffron - has been harvested in the Lyubimovka village, Kherson region.

Today, on the farm the area for the saffron growing is 5 hectares, 1 hectare is allocated for the cultivation of the spice itself, 2 hectares – for

reproduction, and 2 hectares– for bulb growth. In the last section, bulbs with mechanical damage are grown.

Ukrainian saffron is successfully sold on the local market: restaurateurs, spice sellers buy it, and many Ukrainians also buy saffron in small packages for their own needs. In addition, farm is a tourist location now.

Marble beef (State Enterprise "Experimental Farm "Askanijskoe", Tavrichanka village)

The farm maintains 600 heads of southern beef cattle, which is also called "zebu".

In the early 80s, beef cattle were bred by the breeders of the Institute of Animal Husbandry of the Steppe Regions named after M.F Ivanov “Askania-Nova” in the Kherson region. “Zebu” has combined 14 species of "relatives" from Europe, USA, Canada - countries that specialize in raising ungulate animals.

The meat of the Askanian "zebu" is characterised as lean, because marbled beef doesn't contain fat at all. The farm reveals a secret - the whole "trick" is in the animals feed. Marble meat produced by "Askaniskiy" is ordered by several elite restaurants in the Kherson region. A delicacy, especially in the form of steaks, is appreciated by gourmet visitors.

Processed Products in the eligible area

Odessa region

Family-run operation of meat delicacies "Balkan Yastia" (Bolgrad city)

Family-run production of meat delicacies "Balkanski Yastia" in Bolgrad is a mini-workshop that provides all stages of the production of dry-cured sausages and meat delicacies based on natural raw materials. The company was founded by the

Bessarabian family - Sergei and Natalia Rusevs. The products are made according



to ancient recipes using raw materials of local breeds and spices.

The assortment includes dry-cured sausages (karnak, sujuk, sushenytsa), jerked beef and pork, semi-finished meat products (kebab, kyufte, pleskavitsa).

Family-run operation

"Balkanski Yastia" is a participant of the EU project "Geographical indications" and the wine and gastronomic route "Roads of wine and taste of Ukrainian Bessarabia".

In addition to production facilities, the wine and gastronomic tourist location has a branded store of finished products and a tasting room decorated in the style of a traditional Bulgarian mehana (national restaurant). Mekhana "Balkanski Yastia" has a museum exposition on ethnographic themes: authentic costumes of Bessarabian and Thracian Bulgarians, handmade carpets, antique furniture, various tableware, including more than 400 decanters for wine and rakia.

Family-run creamery " Schedraya okolitsa" (Tabaki village)

Creamery "Schedraya okolitsa" is a small experimental family-run dairy production with modern equipment and its own cheese cellar. The company is engaged in the production of traditional and original soft and semi-hard cheeses, as well as other dairy products.

The creamery is located in a unique place - near the famous Trayanovy Val in the village of Tabaki, Bolgrad district. Within the framework of the project "Roads



of Wine and Taste of Ukrainian Bessarabia", the founders of the enterprise Galina and Petr Kurdovs strive to preserve and popularize traditional Bessarabian cheeses, as well as restore forgotten recipes of traditional regional cuisine.

At the creamery, excursions are organised with suggestion to visits the production workshops and cellars, where cheeses ripe in the cold. Guests are shown the production process of cheese making, during which all operations are carried out manually. After the tour, guests can be offered to taste set of finished products and to participate at the master class on the production of traditional cheese.

Assortment of the creamery:

- cow cheese "Black Princess";
- cow cheese " Flyuger ";
- “Bukovinsky” cheese;
- ”Vertep” cheese;
- goat cheese "Vertep";
- hard cheese "Baby piquant";
- marinated semi-hard cheese;
- sheep cheese "Budzhak";
- mixed cheese "Kashkaval Bessarabskiy";
- cheese roll “Gebzhalia” with cream.



Brynzarnya "Kuba-Daleko" (village Primorskoe)

Brynzarnya and the eco-hotel "Kuba-Daleko" are located on the territory of the Danube Biosphere Reserve, next to the resort area of the village of Primorskoye, near the town of

Vilkovo, which is situated on the canals in the Danube Delta. The complex is part of the multinational culture of Bessarabia.

"Kuba-Daleko" has its own goat farm and brynzarnya, where cheese "bryndza" is produced. Here the best conditions have been created for the production of goat cheese, which is traditional for this area, and for recreation organisation in an ecologically clean place.

"Brynza" is very useful: it contains a lot of calcium and phosphorus, easily digestible protein and vitamins, while its energetic value is only 260 kcal. The producers constantly experiment with recipe - they mix it with herbs, soak it in wine.

Degustation take place in the house-museum of lipovan (ancient) lifestyle. Tourists will have a short tour of brynzarna, history of Bessarabia. After the excursion, guests can purchase local products and souvenirs.

The brynzarnya owners are members of the global Slow Food movement, which encourages the development of regional cuisines, the use of organic local products.



Family-run production of meat delicacies "Local Foodie" (Odessa city)

Local Foodie is a small family-run business for the production of craft meat delicacies in Odessa, not far from the sea, on the shore of the Kuyalnitsky estuary. The recipe of dry-cured sausage and meat is the honor of the manufacturer. It is simple and straightforward: lean meat tenderloin, freshly ground spices (no artificial powder mixtures), bacon and wine. The manufacturer uses exclusively local Ukrainian products for the production. The meat is only provided from the Odessa region. Some of the spices are delivered from abroad for the production, although some of them are grown in Ukraine.

Organic chips Duna Chips produced by LLC "Dunaiskiy Agrariy" (Safyany village)

The first chips based on organic raw-materials - two varieties of melons and plums which are produced at the Danube Agrarian agricultural enterprise in the Odessa region.



Organic raw materials for chips are grown on the same farm. This product is made by freeze-drying method and contains preserved vitamins and minerals without added sugar and synthetic preservatives.

The used raw materials are grown without nitrates and pesticides. First, fresh berries, fruits or vegetables are frozen at their peak quality at temperatures below - 40 °C. Further the freeze-drying method is used and average heating of frozen food in a vacuum is implemented. Ice crystals do not pass into liquid, but immediately turns into water vapor, preserving the cellular structure.

Mykolayiv Region

Hydrolates and essential oils (LLC "Natural Essences", Mykolayiv city)

The company produces hydrolates based on more than 30 plant species and 100% pure essential oils from more than 15 essential oil plants. The local climate allows to grow plants that allow to produce high quality hydrolates and essential oils.

For the essential oils production rare plants are used: yarrow, St. John's wort, German chamomile. The products are well known in Ukraine and are in high demand.



The main activity of the company is the production of hydrolates and essential oils from plants by steam distillation method. The company cooperates with medical centers, beauty and health centers, sports centers, pharmacies and consumers interested in health lifestyle.

Canned organic vegetables and natural juices TM "Vladam" (Mykolayiv city)

Highly qualified employees of the company develop a variety of recipes for pickled vegetables. Processed vegetables have excellent taste, they do not contain preservatives or artificial additives, and are pickled according to original



homemade recipes. In 2005 a new marinade line at the Vladam cannery was installed.

Imported equipment, the latest seaming and packaging machines provide to produce natural vegetable juices and canned vegetables of high quality with

suitable prices. Products of TM "Vladam" are packed in a glass jar to preserve the highest biological value.

Canned organic vegetables TM "Stodola" (Pervomaisk city)

The farm is located in the Mykolayiv region in the Pervomaisk city. Every year the area of vegetables is expanded: this year the company has cultivated and process about 2 hectares for vegetables. The farm works only with open ground

and grow unusual vegetables in organic conditions.



Every year farmers experiment with vegetables which are unusual for Ukraine. Okra and truffle potatoes were started last year. These are healthy vegetables, which are good for the circulatory system, eyesight, and even slow down aging.

Now company is experimenting with growing Melotria, also known as cucamelon or Mexican cucumber. This is a liana with miniature fruits, like grapes in size, outwardly similar to a watermelon, and

tastes like a cucumber. Also they are planning to plant the first asparagus seedlings, it is becoming more and more popular both in the world and in Ukraine.

It was built a new cannery shop next to our vegetables fields, which met the HACCP requirements standards for the production of safe food products. The company preserve products in glass jars and additionally sell them for export.

Kherson Region

Ukrainian sun-dried tomatoes (Chernobaevka village)

Ukrainian sun-dried tomatoes is a family-run business. They rent a small shop that meets all sanitary and hygienic standards. The technical conditions for the production of products were approved, the necessary certificates were obtained, confirming the high quality of final products.



The company does not seek for an industrial capacity, but manufactures products in limited quantities, carefully controls the quality of each jar.

For the company's specialists, the creation of sun-dried tomatoes is a gastronomic art and they are happy to share their creativity with consumers.

Ukrainian sun-dried tomatoes are natural products, which do not contain preservatives and flavor enhancers or regulators, stabilizers, etc. For the preparation of these products, natural spices, salt and oil are used.

Bekmes (Green Farms of Tavria, Golaya Pristan city)

The idea of creating the project appeared in 2008. Several dozen members of local farms united and, under the banner of rural green tourism, the idea was turned into a project and was implemented on the border of Golaya pristan and Tsyurupa regions.



The main concept of the project is to combine the cultural, educational, environmental and entertainment components based on the synthesis of the history of the region, ecology

and contemporary art for the development of ecological tourism - the Green Farms of Tavria.

The farms are located on the territory of the "Ninth Cossack palanca" in the lower reaches of the Dnipro river. Traditionally, at the end of summer, the Green Farms of Tavria prepare bekmes - delicious watermelon honey. Such honey is made from non-marketable watermelons. 70-100 years ago, watermelon juice in large braziers was put on a fire: the moisture evaporated within 10-12 hours - and a kind of jam was prepared from it.

Bekmes is not only tasty, but also healthy product, 100 g of which contains 106 calories. It can be consumed by those who have diabetes, liver disease or want to lose weight.

Honey - souffle (farm "Tavriysky Pasichnik", Tavriyskoe village)



Honey-soufflé or cream honey is a product based on 100% natural honey. Its structure is airy, like a cream. It is obtained by whipping fresh honey for a long time at a temperature of + 14-16 °C. Honey-soufflé does not spread or crystallize.

The farm produces honey-soufflé with various fruit flavors: sea buckthorn, raspberry, kiwi, cherry, etc. For this, dry fruit juice is used.

LiQberry organic berry pastes (Kherson city)

LiQberry has been producing unique berry pastes since 2011. The product does



not contain any additives and contains only berries.

The use of selected ecologically pure berries in combination with innovative technology (author - academician S. Osipenko) made it possible to obtain a

product superior in healing properties compared to fresh blueberries.

Ukrainian scientists and technologists, under the control of the idea's author, academician Sergei Borisovich Osipenko, an outstanding Ukrainian scientist, have created a unique innovative hydrothermodynamic technology for berries processing, which makes it possible to obtain these valuable components of the seeds and skin. The use of developed technology allows to produce valuable-added product based on the natural raw-materials. Scientists used the effect of

cavitation, high pressure and low temperature hydrolysis for the mentioned technology.

Thus, new products were obtained - berry pastes containing by-products of processing (seeds and skin), which provides the higher nutritional value formation for the product compared to fresh berries. Additionally these products are characterized with an increase of the antioxidant activity.

3.2. *Labels in the Region*

At the moment, there are no food products, which are registered with PDO, PGI or TSG designations labels. The following producers have applied their products for registration of the PGI designation:

Odessa region	Mykolayiv region	Kherson region
1. "Borodino-A"	–	1. «Kherson Watermelon
2. "Black Sea Walnut"		Producers Association»

Agro-ecological-recreational cluster "Frumushika-Nova" (Tarutinsky district) and the production cluster "Black Sea Walnut" (Belyaevsky district) in the Odessa region are participants of the project “Road of Wine and Taste of Ukrainian Bessarabia”, and also produce the products that have the potential for registration as geographical indications.



«Kherson Watermelon Producers Association» has applied for registration of the geographical indication "Kherson Watermelon", and interested to create a whole subculture around this product. It sponsored the Kherson Watermelon ART competition for children.



3.3. *Traditional cooking recipes*

The history of the Lipovan cuisine formation

Traditions of cooking are an important part of human life, and they are formed simultaneously with the development of national culture. Lipovan cuisine is part of the unique subculture of the Danube Delta indigenous population.

The formation of the Lipovan cuisine is an interesting historical process, which reflects the life of this ethnic group, its character, customs. Lipovans

managed to preserve their identity among the numerous ethnic groups of Bessarabia and create a unique subculture in the Danube delta region with no less unique cuisine, in which fish cooking undoubtedly plays the lead position.

Fish dishes in Vilkovo have been formed and improved over several centuries and have gone from boiled fish and fried crucian carp to such complex and original dishes as fish borscht "on storchak", Vilkovo-style pike perch cutlet, stuffed cabbage rolls, fish pies giblets, eel pilaf, etc.

The fish cuisine of the Vilkovo Lipovans is a bright example of the isolated ethnic culture of the Danube Delta community and an invaluable property of the Ukrainian national cuisine.

Lipovan cuisine has been developing for over three hundred years. Its development was influenced by religious, socio-political and natural factors. An important role in the formation of Lipovan cuisine was played by the fireplace - the place where food was prepared. The formation of cuisine is an interesting historical process that reflects the life of the people, their character.

The religious factor in the formation of Lipovan cuisine

Lipovan temple dishes are prepared by church chefs for the entire community on major church holidays and on the day of a holy or sacred event. If the day of the temple accompanies with the days of the ban on fishing, the residents turn to the authorities with a petition for permission to fish. And they, as an exception, are allowed to fish for the temple table.

If the temple dinner falls on fasting, on Wednesday or Friday (non-meat days), then the best Lipovan chefs prepare only fish dishes. But this does not mean that the temple dinner will be modest and "boring", because Lipovan chefs have no equal in preparing the most diverse, original, excellent, amazing, delicious fish

dishes. An example is borsch "Na Storchak", chopped Danube herring cutlets, Vilkovo cutlets, Vilkovo sweet pepper stuffed with fish, fish cabbage rolls, fish cabbage rolls in grape leaves and many other dishes.

The development of the unique Lipovan fish cooking was influenced by the god-fearing observance of fasts and non-meat days among the indigenous population.

On fast days, Lipovans cook lean fish (pike, pike perch) without adding oil, they also eat salted, dried, steamed, boiled fish. Each young woman from Vilkovo knows how to cook a dozen lean dishes from sander.

Well, after fasting, on holidays, especially on Easter, every Vilkovo family prepares such dishes that they would be happy to be included in their menu by first-class European restaurants.

The political and economic factor in the formation of Lipovan cuisine



The modern Lipovan fish cuisine was formed for several centuries, changed, improved, absorbed the culinary culture of neighboring peoples. Ukrainian settlers, who arrived in the Danube Delta, always lived in their own, rather closed spiritual and cultural world, but in terms of economic and technical development they were always open - from other peoples living

on the lower Danube, they adopted everything that helped them to survive.

It should be noted that the Turkish culinary traditions had a great influence on the formation of Lipovan cuisine because the Turks have been the closest neighbors of the Lipovans for more than 200 years. During the period of the old believers' resettlement to the Danube Delta, Ukrainian cuisine was still at the stage of development. Experts believe that the modern form of Ukrainian cuisine was formed only by the 19th century.

At the same time, Turkish cuisine was already known far beyond the borders of Turkey. So, in Turkey, many vegetables began to be consumed much earlier than in Russia and Ukraine. For example, aubergine, which have long been widely used in Turkish cuisine, was considered untraditional food in Russia and Ukraine and wasn't been used. Also, sweet peppers appeared in Turkey much earlier than in Ukraine.

Choosing fishing as their main activity, the Lipovans conducted intensive trade with Turkey. The fish was not only sold, but also exchanged for kitchen goods, in the production of which the Turks were high quality specialists. The private museum of the Vilkovo city contains a unique collection of copper buckets, braziers, turks, basins, the design of which differs from similar products of European origin. The abundance of Turkish kitchen goods in Lipovans' everyday life indicates about their close economic and social connections among these groups of people.

Old Believers cossacks were guides between Lipovan and Turkish cuisines. They were in the military service of the Turkish sultan and worked closely with the Turkish janissaries. It should be noted that, adopting the culinary culture from the Turks, they implemented it into the Lipovan environment through church communication and family knots.

The special influence of Turkish cuisine on the formation of Lipovan cuisine can be traced in the technology and methods of preparing fish dishes. At the same time, the Lipovans not only adopted fish recipes, but also improved them. For example, Lipovane chopped turkish cutlets are not based on fresh anchovy, but based on Danube herring. The Turkish garlic-pepper paste salamur has also changed - it has become liquid, more convenient to use. The Turkish fish pilaf remained unchanged. The technologies for making Lipovan and Turkish soups are very similar. Turks are not fans of spices, because they believe that eggplant should taste like eggplant, lamb - lamb, and pumpkin – as pumpkin. In Lipovan cuisine, they are also minimally used - all local dishes have a natural taste.

The Romanian national cuisine did not have a particular influence on Lipovan cuisine, since during the period of the settlement of the Old Believers in the Danube Delta, it was not yet fully formed.

The natural factor in the formation of Lipovan cuisine



The Old Believer Orthodox faith had a huge impact on the formation of the Lipovan culinary culture. But the natural factor played an equally important role in the formation of Lipovan cuisine too.

For the Lipovan faith in the Lord and the nature around are synonyms. The Old Believer perceives nature as an integral part of the world created by

God.

At the early stage of the formation of social life, fishing for the Lipovans of the lower Danube was the main activity. This was facilitated not only by natural resources, but also by a religious worldview. Fishing among the Old Believers was associated with the life of the first Christian communities in the Mediterranean. Fishing as a type of labor activity, and fishing as a philosophy - this is the essence of the Lipovans and their main life idea.

The fish has become a staple food product and a professional activity for Old Believers. As of 1835, 1175 people were engaged in fishing in the Vilково town and the Zhebriyanskiy estuary, among them 966 were in Vilково.

The abundance of fish influenced the formation of not only Lipovan cuisine, but also the mentality of this people. There is a joke in Vilково town that Lipovan has only two thoughts in his head, the second is always about fish.

To this day, for Vilково Lipovans fish occupies a special place not only in cooking, but also in socio-economic life.

The fireplace effect on the formation of Lipovan cuisine

Old Believers, having settled in the Danube Delta, began to equip their homes with the obligatory construction of a fireplace. At the same time, specialist, who can built them, were in great shortage. The stove for the Lipovan was a strategic object - a wet and stagnant fisherman who came from fishing needed to warm up and dry his clothes.



They built a large, multifunctional stove: it heated the house, used for cooking, sleeping, drying clothes and even in the absence of a bath it was used for washing. Here, near the fireplace, a kitchen was equipped.

A wide variety of fish dishes in Lipovan cuisine was due not only to the abundance of fish, but also to the variety of ways to cook it in the oven.

Fish in the oven was boiled, stewed, baked, dried. For this, special tableware were used - cast iron cauldrons and clay pots.

The stove in Vilkovo was massively widespread until the middle of the twentieth century, then it was replaced by a Dutch oven, in which there was a cooking plate and an oven, which replaced the oven when cooking by special method.

The Dutch oven can still be found in many Vilkovo houses today. For three centuries, the Russian stove was an irreplaceable structure in the Lipovan's house. Every day, from year to year, when preparing food, the hostesses talked to the stove, in some families the stoves were even given a name. The Russian stove became especially indispensable during strict fasting, when oil could not be used in cooking.

An interesting technology for preparing a simple but very tasty “Pekanka” dish has survived to this day. It is characterized with a special taste only when it is cooked in the oven. Salt is poured into the brazier with unpeeled perches and placed in the oven. The perches are baked in salt without water and oil. Perch

baked in salt was served with baked potatoes, salamura and winter vegetable pickles.

For cooking in summer period, outdoor stoves are used in Vilkovo town, which are equipped in the courtyard, under a covered canopy. They have two terms: *garnushka* and *kabitsa*. *Lipovan garnushka*, unlike the Cossack *cabica*, is higher, with a solid two-winged chimney, all decorated. Such a stove in Crimea is called a summer Greek stove. A cooking stove and a built-in oven are used in the *garnushka*, which characterized with the absence of the oven.

In some Vilkovo houses, you can still find a Russian oven, but it was built in the same way as the *garnushka*, in the courtyard, under a canopy, and its functions were narrowed down to baking bread.

Bessarabian cuisine

Bessarabian cuisine was formed over several centuries under the influence of many other cuisines: Moldovan, Romanian, Bulgarian, Ukrainian, Jewish, Turkish and even Greek. Recipes of many dishes have been passed down from generation to generation.

It is proposed many vegetable dishes, including stuffed vegetables, an abundance of spices, a special attention is paid for lamb and cheese “*bryinza*”. The nationalities, living in this territory, have formed the region gastronomic culture for centuries.

The most delicious dishes that you should definitely try when you visit Bessarabia are: *kavarma*, *kurban*, stuffed bell peppers, cabbage rolls and *dolma*, fish soup, *dunayka* fish, cheese “*bryinza*”, *kyrma* (*milina*), *mamalyga*.

Cheese “bryinza”



It is produced mainly from sheep and goat milk, less often from cow milk. In Ukraine, cheese “bryinza” is produced not only in Bessarabia, but the local technology of producing and storing bryinza differs from the rest regions. Previously, ferment for feta cheese was made from the stomachs of newborn lambs. It should be mentioned that this method has been abandoned and artificial leavens are used for this purpose.

Prepared bryinza must be kept in brine according to the method used in ancient Greece. There is a legend that the Greeks moved goats to Bessarabia because they ate olive trees at home. They began to grow goats here, made cheese from their milk, and delivered it to Greece. For the transportation the cheese was soaked in sea water. Now sea water has been replaced with brine. Before serving, cheese is sprinkled with myrud - a mixture of ground thyme, mint and dill, or red pepper.

Various dishes are prepared with cheese “bryinza”- Kyyrma (or Milina), Gozleme (or Prozhituri), Makarins. Gyozeleme (or Prozhituri) are pies with cheese “bryinza”. Makarines is the dish which contain layers of unleavened dough which firstly cooked like dumplings, and then baked with cheese “bryinza”.

Milina (or Bannitsa)

Ingredients: flour - 0.5 kg; water - 100-150 ml; salt – 5 g; egg (in some recipes); sunflower oil - 0.5 cups; for the filling: cheese “bryinza”; sour cream; butter; 2-3 eggs; greens (parsley, dill - optional).



Cooking: knead the dough and divide it into 12 parts; roll out each part of the dough on a table to a thickness of 1-2 mm; distribute the filling on the sheet in a small layer; roll the filled sheet into a tube and

place it on a baking sheet clockwise, starting from the center; repeat the same with all the dough and fillings; grease the dish with yolk; additionally it can be sprinkled with sesame seeds; bake in the oven for 40-45 minutes at a temperature of 170-180 °C.

Dunaika



It is a Danube herring. It tastes special through the water plants that grow in the Danube. Herring eats them and due to this is characterized with an incomparable taste. Any dish with the Dunaika will be unique to this

region. For example, boiled in salamur Dunaika, baked Dunaika or Dunaika cutlets.

The fishing season for the Dunaika falls between of March-May. Due to the short seasonal fishing and extraordinary taste, the Dunaika is a scarce and delicious fish.

Boiled in salamur Dunaika



Ingredients: Danube herring - 1 kg; salt - 3-4 tbsp. spoons, vinegar.

Cooking: we cut the portions of fish, pour water into a saucepan at the ratio of 1 liter of water per 1 kg of herring; salt water at the ratio of one tablespoon per 1 dunayka, add vinegar to taste; put the cut fish in

boiling water; cook for 8-10 minutes; after that carefully take out the fish out the salamur. The fish is served with all kinds of potatoes and fresh vegetables.

Minced Dunaika cutlets



Minced cutlets from Danube herring are the Turkish dish Khamsi Mujver (minced hamsa cutlets) improved by Lipovans.

Of course, hamsa cannot be compared with the elite Danube herring, so

minced hamsa cutlets are an everyday dish, and Dunaika cutlets are considered a festive, temple dish, and are prepared for holiday table only.

Chopped cutlets are prepared only from freshly caught herring. Of course, you can also cook from freshly frozen herring, but in Vilkovovo such cutlets are called "for a fool", so it is believed that in Vilkovovo only a fool will not differ the taste of a dish made from fresh fish and frozen.

Minced Dunaika cutlets are prepared in two stages - first they are fried, then they are cooked by the stewing method. In the beginning, after frying the cutlets become dark in color, this is due to the presence of a large amount of fat and iodine in the Danube herring. After boiling and stewing, the color becomes solid, and the taste becomes soft, pleasant, juicy.

Ingredients: Danube herring - 1 kg; white sweet onion - 0.1 - 0.15 kg; potatoes - 0.1-0.15 kg; white bread - 0.2 kg; corn flour; salt, pepper, allspice; sunflower oil for frying.

Cooking: We clean the Danube herring from scales, remove the gills, wash; cut into fillets, remove the insides, rinse; fillet cut into cubes 0.5 x 0.5 cm; finely chop the onion; rub the potatoes on a coarse grater; soak bread in water and squeeze it out later; mix everything, add salt, pepper; the cutlet mass must be beaten off for consolidation; cutlets form with a tablespoon, bread in corn flour and fry in a pan in sunflower oil on both sides; put the fried cutlets in a saucepan, fill it with cold water, add salt to taste, boil it for 10-15 minutes.

Fish soup Lipovan

The Danube Delta is a unique natural phenomenon that can be called a paradise for fish. The food supply for fish here is so rich and varied that makes their meat



uniquely healthy and tasty. Also it should be noted that the waters of the Danube are called the delicacy shop of the European fishing industry.

High-quality and varied fish nutrition in the Danube Delta is one of the main secrets of the delicious taste

of Lipovan fish soup. Therefore, real Lipovan fish soup can be tasted only in the Danube Delta and only in Vilkovo, where not only the most delicious fish is

caught, but also the priceless traditions of its preparation are preserved.



So, the uniqueness of Lipovan fish soup is due to the technology of its preparation, in which boiled fish keeps its unique taste. The natural

smell and taste of cooked fish combined with the smell and taste of the famous Lipovan salamur is just a culinary miracle!

And one more little secret of Lipovan fish soup - during the meal, each fish-eater is served with a glass of local Novak wine. The smell and taste of this wine not only increases appetite, but also harmoniously complements the taste of fish.

Ingredients: fish (crucian carp, pike perch, pike, in spring - Danube herring) - 2 kg; potatoes - 0.5 kg; onions - 0.3 kg; carrots - 03 kg; tomatoes - 01 kg; sweet pepper - 01 kg; parsley, dill, salt, pepper, garlic.

Cooking: pour water into a saucepan according to the amount of fish and put it on fire; add the peeled onions, carrots and potatoes,; add tomatoes to boiling water, boil it, take it out, wipe it and put it aside; peel the garlic, bell pepper and chop finely, set aside; clean and cut the fish into large portions; add the salt in the water with vegetables and put the fish - first add hard varieties (carp, bream, podlesch, pike) to the water, then soft varieties (pike perch, perch, herring), the water should cover the fish, but it should not swim; cook for 12 - 20 minutes, avoiding boiling: after cooking, remove the pan from the heat and let the fish soup rest for 5 minutes; while the fish is resting, we make garlic seasoning - salamur; after that we take out the whole fish and put it on a dish; we take out the vegetables and put them on top of the fish; add bell peppers and fresh chopped herbs to the fish soup; additionally add salty spicy salamur to taste.



Kavarma (Bulgarian name) or Kavurma (Gagauz name)

The name of dish comes from kavurmak, a Turkish word that means "to fry". In Bessarabia, sheep meat is used for the preparation of Kavarma, and very often this is an

old animal. Since the older the animal, the more tough the meat. For the cooking it takes very long time, and then the meat is fried.

This lamb meat is cooked traditionally over an open fire in a large 100 liter pot. The meat is stewed, onions and sweet red pepper sauce are added to it, wine is sometimes added, and at the end it is seasoned with spices. Kavarma is served mainly on holidays and is eaten both ways - cold and hot. Hot Kavarma looks like a fatty soup, and a cold one - a thick meat jelly.

Ingredients: bone-in sheep meat; sheep stomach; water (quite a bit); pepper and salt to taste; herbs (thyme, marjoram, oregano - to taste); before starting, you need to separate the lard (fat) from the meat.



Cooking: the meat should be stewed in fat with a little amount water; after the meat has been cooked, it is separated from the bones and continues to be fried in a pot in its own juice; add

herbs and spices, bay leaves and chili; the dish should be stewed for several hours (about another 3 hours).

Kavarma is served hot simply with bread. When you have tasted Kavarma and realized that ratio of spices is suitable - pour the meat and sauce into the molds - after it is cooled, Kavarma can be stored in a cold place for up to two months.

Odessa eggplant caviar



In Odessa, every self-respecting hostess prepares eggplant caviar, and each hostess has her own unique and most correct recipe for this dish. The peculiarity of Odessa eggplant caviar is that the eggplants are

added with minimal heat treatment, and the rest of the vegetables are added raw.

Ingredients: eggplant - 5 pieces; ripe red tomatoes - 5-7 pieces; onions - 3 pieces; aromatic sunflower oil (from fried seeds) - 3 tablespoons; parsley greens - 1 bunch; black pepper - 1 teaspoon; garlic - 1 head; hot red pepper - 0.5 teaspoons; salt - 1 tablespoon; sugar - 1 teaspoon.

Cooking: Bake eggplants on a fire (or in the oven), cool, peel and chop. Finely chop the greens, onions and tomatoes. Mix everything, add oil and crushed garlic, season with salt, sugar, pepper and refrigerate.

Fish cue ball



Ingredients:

hamsa - 1 kg, eggs - 3 pieces, salt, pepper, flour for breading, sunflower oil for frying.

Cooking: To wash the hamsa, take off insides, add salt and pepper. Beat eggs. Heat sunflower oil in a pan. Gather three hamsas together by the tails, dip first in flour, then moisten in egg, then fry. Put ready-made cue balls on a dish, serve with radishes, tomatoes, herbs.

4. Challenges and prospects of the traditional food sector of the South East regions in Ukraine

Ukraine's food industry is extremely important for the country's economy, and food production always deserves special attention in state economic policy and ensuring food security of the country. We have summarized research and analysis of different scientists to show the view on the challenges and prospects of the traditional food sector of the Ukraine.

Challenges of the food industry in Ukraine are following: decline of leading industries such as: sugar, bakery; low purchasing power of the population, which is exacerbated by the steady rise in prices for products and a "critical" share of household expenditures, as a result, unbalanced nutrition, especially in the meat, fruit and vegetable, and dairy industries; shortage and import dependence of raw materials on some items, namely meat processing, fish, dairy; high geographical concentration of export of products to the countries of the former post-socialist space, including the bakery and dairy industry; obsolescence of fixed assets and equipment of processing enterprises (more than 50%), the modernization of which requires considerable investment; insufficiency of own funds of enterprises, as well as insufficient programs of financing by the country, in particular, the need for significant funding for the process of various certification of products at food processing enterprises (HACCP, Global, etc.), concerns producers of products of animal origin, dairy, meat branch.

To all industries and productions these factors lead to: lack of innovation and investments; disproportions in the system of pricing, rising prices and tariffs on the main components of the cost of foodstuff (in particular, energy supplies); monopolization of the food market (especially such as poultry production,

confectionery, fat and oil industry), the principle of other sectors of the economy, which causes unfair competition in the food market and corruption; poor quality of the regulatory environment, which complicates the conditions of operation of enterprises; high level of shadow economy, which leads to the impossibility of generating real statistics on the activities of economic entities, assessing their profitability, as well as the loss of a large part of the country's budget; insufficient quality of products due to poor quality of raw materials, outdated equipment, non-compliance with sanitary standards, etc., limits the competitiveness of local production; absence of legislation on the protection of intellectual property; lack of relation between suppliers of raw materials and processing plants for the production of finished products with high value added; existing institutional bodies and normative acts of the government regulation, which are declarative in nature, the organizational activities of which contradict each other and impose additional administrative barriers on the development of the food industry.

It is necessary to formulate the existing prospects of development of Ukraine's local food industry to overcome the problems mentioned above.

Table 4.1 SWON analysis of current situation traditional food sector in South East region of Ukraine

Strengths	Weaknesses
Ideal climatic and environmental conditions for high quality food production, Very appreciated characteristics of the products by consumers	Low producer income Low sale prices and high production costs High capital costs Weak management skills

Production capacity Progresses in human resource management and development Skilled educated human resources Technical expertise Response to the market needs	Weak involvement in networks (innovation, markets, lobbying), farmer`s poor entrepreneurial skills in the agri-food sector
Opportunity	Threads
Existence of EU funds supporting international projects and local products in all European countries Growing international demand Cooperation and networking with innovation centres Product promotion through rural tourism Increasing interest of consumers tourists and development agencies	Economic crises Political instability Competition from imported products Competition among stakeholders Instability of markets and prices volatility Slow implementation of rural development policies

The strengths of the traditional local food sector are production capacity; skilled educated human resources; progresses in human resource management and development; technical expertise; response to the market needs; ideal climatic and environmental conditions, very appreciated characteristics of the products by consumers.

The opportunities of the traditional food sector include: existence of EU funds supporting international projects and local products; growing international demand; cooperation and networking with innovation centres; product promotion

through local tourism; increasing interest of consumers tourists and development agencies.

The weaknesses of the traditional food sector include: low producer income, low sale prices and high production costs, high capital costs, weak management skills, weak involvement in networks (innovation, markets, lobbying).

The threats of the traditional food sector include: economic crises, political instability, competition from imported products, conflicts among stakeholders; instability of markets and prices volatility, slow implementation of rural development policies.

In recent years, a dissemination company has been held in Ukraine to popularize registration PDO/PGI. Despite the fact PDO/PGI that certification is known in Ukraine to some extent, entrepreneurs of the food sector in Ukraine do not adhere to the PDO/PGI food systems because:

- The limited opportunities for innovation resulting from the product specification forms;
- The economic and transactions costs of certification;
- The bureaucracy related to the certification process;
- The insignificant difference in prices between products with PDO/PGI labels and standard products (within the same reference market);
- The Ukrainian consumer's food preferences.

Table 4.2 PDO/PGI: Positive and Negative Aspects

Strengths	Weaknesses
<p>Ideal climatic and environmental conditions for high quality food production</p> <p>High consumer`s interest for the products</p> <p>Production capacity</p> <p>Progresses in human resource management and development</p> <p>Skilled educated human resources</p> <p>Technical expertise</p> <p>Response to the market needs</p>	<p>High production costs</p> <p>Weak management skills</p> <p>Weak involvement in networks (innovation, markets, lobbying)</p>
Opportunity	Threads
<p>Growing international demand</p> <p>Cooperation and networking with innovation centres</p> <p>Product promotion through local tourism</p> <p>Increasing interest of consumers tourists and development agencies</p>	<p>Economic crises</p> <p>Political instability</p> <p>Competition from imported products</p> <p>Instability of markets and prices volatility</p>

Expected positive and negative effects of a PDO recognition could be pointed out:

Expected positive effects: - market and notoriety creation; - market differentiation on quality level products; - higher sale prices; - increase of public

funding and support, - exclusion from the misuse of product reputation on local wholesale and retail markets; - stimulus to adopt the logic of quality assurance and certification procedures, at present almost totally absent; - influence on other local agricultural and craft products; - promotional effect for tourism in the area and country; - protection of native varieties which are facing marketing;

Negative expected effects: - increase in production cost, - higher selection of the product; - increase in internal competition; - expected increase in the misuse of the name (unfair competition) due to higher prices of the product with PDO.

The agrifood sector is very important for the Ukrainian economy. There is consensus that today Ukraine is one of the potential rising stars of Eastern Europe (BE Berlin Economics, 2011; EC, 2009; Leeuwen et al., 2012; TEBODIN, 2013a). The sheer size of the country, its key geographical position, combined with its fertile soils, are features that contribute to its huge agricultural potential. Untapping the agricultural potential could give a significant boost to the overall economy as the sector still plays an important role in the Ukrainian economy. By 2011, it accounted for over 8% of GDP and 5.5% of employment in Ukraine.

The Ukraine agro-industrial complex is one of the most attractive sectors for investment, despite the difficult operating environment, the absence of a land market, legal regulations and dependence on natural conditions (TEBODIN, 2013a). This attractiveness is primarily due to increasing agricultural product prices and relatively low cost of land and labour, as well as the business value increase potential in case of legislation change (including the lifting of the moratorium on sales of agricultural land).

Main drivers of agri-food development in Ukraine: - Recent economic growth performance has been modest, and short term prospects are pessimistic. Growth may resume, but is highly dependent on policy and institutional reforms,

and the global economic recovery. - Overall consumer demand for food is depending on economic growth and population growth; population is declining and GDP growth will be slow, at least in the short term. - Modern food retail increases its market share and increasingly determines product and process standards. - Agricultural support varied over time and has an ad-hoc nature. A much more stable agricultural policy environment aiming at productivity and quality enhancements would contribute to improvements of the sector's competitiveness. - Ukraine is member of the WTO. The EU applies the Generalised System of Preferences to imports from Ukraine. EU protection is highest for cereals and meat, via tariffs and restrictive tariff rate quota. - Present exchange rate policy, now part of an overall macro-economic stability policy, is not favourable to exporters. - The EU is already an important market for Ukrainian agri-food exports; the size of the market offers Ukraine high opportunities to expand if its agri-food sector can comply with EU standards. In case of a DCFTA, access to the EU market may improve especially for cereals and meat.

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