PROMOTION OF CULTURAL HERITAGE — REGIONAL AND TRADITIONAL POLISH MEAT PRODUCTS

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Abstract
The diverse culinary heritage of various countries in the European Union (EU) has been attracting attention for a very long time. This type of high-quality traditional food should be fully exploited and promoted as a common good that is part of the history of given countries. In order to distinguish individual products and their value (not only cultural, but also qualitative), the EU created special awarding signs (quality schemes) that conform to the quality of traditional products: Protected Designation of Origin (PDO), Protected Geographical Indication (PGI), or Traditional Speciality Guaranteed (TSG). One of the first associations with Polish cuisine would undoubtedly be meat dishes, which play an important role in preserving the tradition. The most popular types of meat in Poland are pork, beef, and then poultry. In addition, game animals are very popular, including wild birds (black grouse and larks). This type of dishes is prepared according to traditional recipes handed down from generation to generation. Products typical of the region obtained from local crops and animal breeding are used in their preparation. Thanks to this, traditional dishes acquire specific taste values, which cannot be recreated in other parts of the country.

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Introduction
According to the study «Apetyt na region» (Appetite for the region), carried out by Citybell Consulting and ARC Rynek Opinia, about 67% of Poles bring in from their trips regional food products, such as cheese (35%), honey (14%), fish (14%), cold cuts (13%) or bread (8%). Each country has its own specific agricultural products and foodstuffs that characterize a given region and are part of the tradition and culinary culture of the people living there [1]. For example, mutton and lamb meat (mostly in the form of smoked ribs) dominated in one of Polish regions — Podhale. Kindziuk or dried sausage is an important dish for people from another part of the country — Podlasie. In the Kurpie region, cuisine was dominated by venison. Some of the dishes were known in several regions. An excellent example is «czerenia», i. e. goose or duck blood soup. In Malopolska voivodship, tripe and duck were characteristic meat dishes. Also, other meat products play an important role in Polish regional culinary culture [2]. Polish cold cuts, sausages, hams, and smoked meats are an inexhaustible range of valued flavors and aromas. Depending on the culinary regions, these products can be prepared in different ways, using different culinary techniques and methods of serving which make each product really special. It all adds up to the uniqueness of the culinary traditions of a given region.

The definition of a regional and traditional product was included in Regulation (EU) No 1151/2012 of the European Parliament and of the Council of November 21, 2012 on quality schemes for agricultural products and foodstuffs [3]. The purpose of this law is to help producers of agricultural products and foodstuffs to inform their buyers and consumers about the characteristics of their goods, thereby ensuring:

a) fair competition among farmers and producers of agricultural products and foodstuffs with added-value characteristics and properties;
b) consumers’ access to reliable information about products;
c) compliance with intellectual property rights;
d) the integrity of the internal market.

The measures set out in this Regulation are intended to support agro-processing activities and farming systems linked to high-quality products and thus contribute to the achievement of the objectives of rural development policy. The Regulation establishes quality schemes that provide the basis for the definition and, where appropriate, protection of names and terms which, in particular, indicate or describe agricultural products characterized by:

a) value-added features, or
b) value-added characteristics as a result of the agricultural production or processing methods used in their production, or of the place of their production or marketing [3,4].

Food described as «traditional» covers different categories of products that are characterized by specific raw materials, processing methods and place of origin. According
to EU Regulation No. 1151/2012 [3], «traditional» product should have a documented history on the market for a period indicating its transmission from generation to generation, and it should correspond to the time usually assigned to one generation [5,6]. It includes goods whose quality or unique ingredients and properties result from the use of traditional production or processing methods which were used for at least 25 years. Another important factor is to possess an element of the cultural heritage of the region, in which they are produced, and to be part of the identity of the local community [7]. In addition, the product should have specific characteristics which distinguish it from other similar products of the same category in terms of «traditional taste» [5,8].

The first regulations preventing counterfeiting of regional and traditional products throughout the European Union (EU) were issued as early as 1992 and 1993 [9,10]. They were aimed at standardizing the procedures of verification and identification of unique products in the territory of the EU. On their basis, a system of Protection of Designation of Origin and Geographical Indication of products was created. Traditional speciality guaranteed (TSG) highlights the traditional aspects, such as the way the product is made or its composition, without being linked to a specific geographical area [11].

The European quality system distinguishes three product categories: Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Speciality Guaranteed (TSG) (Figure 1).

The basis for PDO registration is the manufacturing tradition and the special and unique quality associated with historically established production and processing methods for at least 25 years, which guarantee the high quality of the product obtained. Moreover, the PDO quality scheme is granted to a product, in which all production stages take place in the same geographical area [3,13]. Similarly, for PGI registration, the certification scheme indicates the above, but the link with the territory is less, and at least one of the production phases must take place in a specific region.

None of Polish meat products are registered as PDO. However, three meat products have obtained PGI certification: 1. jagnięcina podhalańska (a. k. a. podhalaniska lamb), 2. kiełbasa biała parzona wielkopolska (a. k. a. «Wielkopolska» white steamed sausage), and 3. kiełbasa piaszczańska (a. k. a. piaszczańska sausage) [3,12,13].

In addition, there are four meat products registered as TSG: 1. kiełbasa myśliwska staropolska (a. k. a. staropolska hunter’s sausage), 2. kabanos, 3. kiełbasa jałowcowa staropolska (a. k. a. staropolska juniper sausage), and 4. kiełbasa krakowska sucha staropolska (a. k. a. dry Krakowska staropolska sausage).

**Description of some Polish meat products registered as PGI or TSG**

**«Wielkopolona» white steamed sausage (Kiełbasa biała parzona wielkopolska) (PGI)**

Steamed sausages have been well known in Poland for a long time. The recipes depend on the availability of meat. In Wielkopolska, the production rule for white raw sausages and later on for white cooked sausages were well documented in the 90s of the 20th century.

The popularity of the sausage increased so much that butchers started producing it on a large scale. The sausage was available all year long and gave rise to various forms of its use in preparing dishes.

The tastiness of «kiełbasa biała parzona wielkopolska» is created by the taste of cooked pork with a gentle aroma of garlic and pepper. The sausage will not taste properly without the addition of marjoram. The uniqueness of the sausage is due to the use of fresh, chilled, uncured meat, 70% of which is derived from ham.

«Kiełbasa biała parzona wielkopolska» is used in more and more new recipes for meals published, among others, in magazines and on Internet forums. The unique character of the sausage successfully combines the traditions of the region with the present day and is protected by geographical indication [12].

**Hunter’s sausage (kiełbasa myśliwska staropolska) (TSG)**

For the production of Hunter’s («myśliwska») sausage, meat from pigs with a greater weight and fat content than typical pigs (body weight of up to 120 kg, above 3% intramuscular fat content) is used. More fatty type of meat gives a distinctive flavor of the product and is based on native Polish breeds of pigs: Wielka polska biała, Polska biała zwisłoucha, Puławska or Złotnicka. Fattening is based on traditional mixtures of cereal and other natural components [14]. Energy is provided by feed mixture components including cereal like wheat, rye, oat and corn. Lupin, fava bean, soy, rape cake, fodder yeast and dried green fodder are used as protein components. The raw material used for the production of the described product is 50%
beef and 50% pork. The unique smell and taste distinguish «Myśliwska» sausage from other types of sausages. This is due to the use of different spices like juniper, pepper and garlic. Juniper is a traditional spice used in Polish cuisine and occurs frequently in forests. Its addition to the sausage enhances the taste and smell of the product and influences its specificity [15]. «Myśliwska» sausage is warm-smoked and heat-treated to an internal temperature of at least 70 °C. These processes of production give the product the characteristic color and unique taste. The internal temperature of 70 °C inactivates microorganisms present in the stuffing. The final stages of the production process are cooling to <10 °C and drying at 14–18 °C for 5–7 days to achieve the appropriate quality characteristics [4,16].

*Kabanos (TSG)*

The biggest advantages of kabanos are the specific taste and extended shelf life, which are ensured by drying and smoking processes. It is a thin, dried and smoked pork sausage in sheep intestine. The typical color of the surface is dark red with different shades of cherry. Kabanos has a specific taste of heat-treated corned pork, and a light after-taste of caraway and pepper. The specificity of the product is due to pork used in production process. Meat from more fatty type of pigs (weight of up to 120 kg) gives characteristic features of kabanos [17]. Pork with an intramuscular fat content above 3% ensures characteristic taste and appropriate technological properties of the obtained products [4]. Meat from Polish purebred pigs like Wielka polska biała or Polska biała zwisłoucha and traditional production methods (in particular the most important stages: grinding, curing, smoking) provide unique taste of kabanos and exceptional crispiness. The characteristic feature of kabanos is a snapping sound produced when it is broken to half. Due to the effect of properly conducted drying and smoking processes, meat acquires a peculiar fragility. Smoking and heat-treating give the right color of the skin and appropriate taste qualities. The heating process destroys any pathogens present in the stuffing. Also, specific taste and smell of kabanos are the result of spices: natural pepper, nutmeg, and cumin [17].

**Other traditional and regional products in Poland**

Consumer choice of certain foods is strongly influenced by cultural heritage. Nowadays, young generations are showing a progressive interest in their cultural heritage. This interest affects the satisfaction of various needs, including mental and social needs, and is related to the desire to preserve and display the values of cultural heritage [18,19]. In Poland, traditional food products are perceived by consumers as extremely tasty and of high quality [5,18,20].

At the national level, the registration of traditional products is carried out by the Ministry of Agriculture and Rural Development, and the entry on the lists is made after evaluation by the competent voivodship marshal (the head of the provincial-level government). The list of traditional products of the Ministry of Agriculture and Rural Development includes 1972 different food products (as of May 30, 2020). The presence in this list favors increasing interest in a product within a given community at the provincial, district or municipal levels (voivodship, poviat, commune, respectively), as well as among tourists, and it becomes a kind of local showcase [21].

**Table 1. Number of different edible products (e. g. meat products, honeys, drinks, sweets, etc.) on the traditional product list issued by voivodships in 2020 [22]**

| Name of voivodship | Number of products |
|--------------------|--------------------|
| Dolnośląskie       | 52                 |
| Kujawsko-Pomorskie | 92                 |
| Lubelskie          | 223                |
| Lubuskie           | 82                 |
| Łódzkie            | 150                |
| Mazowieckie        | 224                |
| Opolskie           | 68                 |
| Podkarpacie        | 246                |
| Podlaskie          | 74                 |
| Pomorskie          | 179                |
| Śląskie            | 145                |
| Świętokrzyskie     | 94                 |
| Warmińsko-Mazurskie| 46                 |
| Wielkopolskie      | 98                 |
| Zachodniopomorskie | 55                 |

Meat products occupy an important place in Polish cuisine. This type of products, especially highly processed and consumed in excess, may have an adverse effect on human health and well-being. However, as meat and meat products are a very important part of the diet, they should not be eliminated from it. Polish cuisine is divided into several culinary regions. In many of them, similar raw materials are used for the production of food, but the specificity of the regional cuisine lies in the unique method of combining them, the use of different culinary techniques, the method of serving or naming. It all adds up to the uniqueness of the culinary traditions of a given region.

**Description of other traditional Polish meat products**

*Bacon stewed in beer*

The bacon stewed in beer is produced in the village of Lazy in Polish voivodships — Małopolska (Figure 2). Due to good soil and favorable climatic conditions conducive to the production of healthy and high-quality raw materials, this region has a rich agricultural and breeding tradition that is still cultivated. A record of the recipe for bacon stewed in beer has been preserved in the family notebook with recipes since the 1950s. The bacon stewed in
beer is prepared from lean, raw, boneless bacon. In the past, the dish was usually prepared after pig slaughter, which took place on farms several times a year. It was served at the festive table, e.g. for a cold Easter breakfast with horseradish and bread. The bacon is prepared in several stages. First, it is necessary to clean the bacon. The next step is the preparation of the marinade, which consists of garlic, salt, oil, marjoram and pepper. The marinade should be rubbed thoroughly into the bacon, which is then placed into the fridge for a minimum of five hours. Prepared meat is put into a gooseneck (or a heat-resistant dish), beer is added, the dish is placed into the oven preheated to a temperature of about 160–170 ºC and simmered covered with a lid for about 1.5 hours. After that, the lid is removed; bacon is sprinkled with caraway seeds and baked for about 15–20 minutes [23].

«Kindziuk» or «skilandis» — Traditional specialty from eastern Poland

It is a very tasty and durable product from eastern part of Poland called «Podlasie» (Figure 3), and thanks to the addition of salt, it can hang in a cool place, even in hot weather. This meat is an example of how to manage keeping the product fresh without the use of preservatives and chemicals that are used nowadays. The history of its creation is related to the need to provide food for the harvest season in a time when refrigerators were not known. Meat and cold cuts were prepared in winter, so that they were ready for the time of intensive work in the field (spring and summer). The meat of the ham, sirloin and shoulder blades was cut into 1–3 cm pieces, salted and seasoned abundantly with garlic and pepper, then firmly stuffed into a cleaned pork stomach and sewn up. The product was hung for a short time in a warm place by the stove to be dried, and then taken to the attic, where kindziuk dried in an airy place. Sometimes it was smoked. Kindziuk cut into smaller pieces, served with home-made bread and butter is considered a delicacy. In summer, kindziuk can be used to cook very tasty borscht and sour soups with a specific smell [24].

The modern method of making kindziuk resembles the old one, except that today it is more often made in a pork bladder than in the stomach. Thanks to this, the product has the smaller size. Also, nowadays more spices are added to cure the meat (e.g. allspice, coriander, mustard) [25].

Biłgorajska sausage

Biłgorajska sausage is produced in family farms using local, traditional recipes passed down from generation to generation. From the 60–70s, the recipe, composition of raw materials, production and smoking methods have never been changed [26].

Biłgorajska sausage consists mainly of crushed meat and fat raw materials. The natural casing sticks tightly to the stuffing, is brown to dark brown and evenly wrinkled. Jelly and looser binding of meat raw materials is allowed. It is a crispy and brittle sausage, and has the taste and smell characteristic of pork, smoked and roasted sausages. The smell of smoking is strongly felt in a traditional smokehouse with the use of alder wood and spices, especially garlic. Biłgorajska sausage is based on raw materials obtained exclusively in the region, from the ecologically clean areas of Roztocze. These are pork, garlic and alder wood for smoking [27]. Throughout the production process, the most important factor influencing the quality of the final product is the quality of meat and spices. The raw materials prepared after cutting are mixed, and cooked pork skins are also added. In winter and spring, about 10% more garlic is given due to the loss of aroma during storage. Alder wood is also an important factor, which gives a specific flavor and aroma bouquet. Thermal treatment consists of smoking with hot smoke in a special smokehouse made of burnt bricks fired with alder wood. The smoking process takes about 4–6 hours, then the sausage is cooled down with air [26].

Smoked ham from Wisznice

A typical ham from Wisznice has the form of an irregular cylinder, up to 30 cm long and up to 10 cm in diameter. The finished ham has a brown surface color with a shade of dark cherry, a soft and slightly juicy texture, a salty taste and the smell of alder smoke. It owes its characteristic taste and juiciness to the high-quality raw material from local pig farms, as well as the addition of natural spices and proper smoking. Other stages of production are equally important. The production process is performed as follows. First, the necks of young pigs are rubbed with salt and placed tightly in special pools for 2–3 days. After this time, they are soaked in hot water for 2–3 hours, washed and put to drain. The hams are injected with the brine containing a small amount of pecosalt, covered with spinning nets, tied and hung on smoking
sticks to dry. The hams are smoked for 3–4 hours with the smoke of dry alder wood in closed smokers made of burnt red brick. Then, they are boiled in a steam kettle at the temperature of 80–82 °C for 60–150 minutes and hung up until evaporation of moisture [28].

**Thin black pudding (Kaszanka Cienka)**

The Rzgów commune is located in the central part of Poland. Due to the poor quality of the soil in this area, the inhabitants mainly deal with cattle and pig farming. One of the characteristic products prepared in the Rzgów commune is thin black pudding. It has the brown to dark brown color, visible pieces of gray-brown liver and light points of groats and fat. Its taste is characteristic of giblets steamed with the addition of blood and buckwheat, moderately salty, with noticeable spices such as pepper. For its preparation, pork raw materials, i.e. masks from heads, center, liver, pork skin, fat, lungs, greaves and blood are used. The distinguishing feature of thin black pudding is the use of white buckwheat cooked in meat broth. The delicate taste of the groats prepared in this way and liver cut into thick cubes gives the product a specific taste. Black pudding is cooked in large kettles, where the product is placed in hot water for about 30 minutes [29].

**«Salceson polski» from the Karkonosze Region**

This product entered the list of traditional meat products in 2019 and it comes from part of Poland, which is called «Dolny Śląsk». To prepare salceson, pork stomachs or beef bladders are filled with a stuffing made of pork head meat, tongues, hearts, meat from pork knuckle with jelly. The spices used to make it are mainly salt, cumin and black pepper. The meat is cured in brine with bay leaf, allspice, garlic and pepper. Then, the stomachs are tied at the ends with yarn, boiled and placed on nets, pressed with a heavy object, in order to obtain the characteristic kidney-shape. Salceson contains clear, amber-colored jelly. The cross-section shows pieces of meat, masks of heads and offal. In consistency, it is compact, resilient, slightly greasy. The taste of garlic, marjoram, pepper and cumin is noticeable and product aroma is typical of cured meat and offal [30].

**Goose pate**

Goose breeding and processing have played one of the important roles in the nutrition of the inhabitants of Zachodniopomorskie voivodship. The recipe for this meat product was brought to this region almost 70 years ago. In spring, the local population bought young geese at fairs that functioned in almost every city. They were most often used as a pate. Currently, older residents of this region are less likely to produce this product, passing the tradition of its production to the younger generation. A modern recipe for goose pate describes the several steps involved in preparing this food product. To begin with, necks of geese should be separated from the bodies. The geese are boiled in a pot, adding vegetables to the water. The liver is cooked separately. Pork bacon is baked on a greased baking tray. The onion is fried. All meat is ground with onions and dried mushrooms. Eggs, a soaked wheat roll and spices are added. The obtained mass is thoroughly mixed, put on a baking tray and sprinkled with marjoram. Goose pate is baked for about 40–50 minutes. The color of this meat product is dark brown, gray-brown in cross-section. Its consistency is firm, soft and spreadable and the taste is described as reminiscent of roasted meat, salty with the addition of pepper and herbs. The product has a delicate aroma, characteristic of roasted meats [32].

**Mazurska smoked lard**

The cuisine of the Mazury region has always been based on high-quality ingredients in this land. These include the products of animal breeding: pork, beef, less often veal and mutton, and all kinds of poultry. Pigs have been bred for a long time, and traditional fattening methods have been widely used for centuries. Only such meat gives and guarantees an unforgettable taste experience. The basis for the success of a butcher was efficient slaughter, proper processing and preservation of meat. Pigs were most often slaughtered at the farmer’s house, and meat was used to make various kinds of cold cuts, often in the homes of their later owners.

Mazurska smoked lard does not contain any preservatives or fillers. One kilogram of raw material is required to produce 0.6–0.7 kilograms of the product. If Mazurska
smoked lard is hung in appropriate airy places at 10 ± 12 °C and 75–85% air humidity, it can be a cured meat product suitable for long-term consumption [32].

### Conclusion

In Poland, the interest of producers and consumers in traditional food has increased significantly in recent years. This may be caused by the fact that the high quality of traditional products is preserved through the use of natural raw materials and additives, uncomplicated production methods and direct distribution. The growing interest in this type of food means that more consumers choose traditional products, assuming that «traditional» is synonymous with «high-quality».

Recently, a positive food trend has been observed. Polish consumers are more and more willing to reach for healthier, more natural food products. On the other hand, there is a noticeable lack of knowledge about regional and traditional products, even among people brought up in a given tradition. One of the reasons for this situation is the difficulties in reaching this type of products, as reported by consumers.

The promotion of traditional and regional products is supported by projects, including those of the Ministry of Agriculture and Rural Development and implemented by universities such as the University of Life Sciences in Lublin. Also, it should be emphasized that the development of the regional and traditional food market may contribute to an increase in the attractiveness of regions. The continuous trend of consuming regional products can be the basis for activating the community.

The production, protection and promotion of high-quality food play an increasingly important role in the European Union countries. The benefit of promoting regional products is to show consumers and producers how rich various regions of Poland are in terms of traditional food production and cultural heritage.

### REFERENCES:

1. Appetite for the region. Podkarpackie Province. Nationwide public opinion polls. Retrieved from https://www.horecanet.pl/Hotwasher/files/d6/d693e3e10-3391-490f-85f4-016711f3995d.pdf Accessed on August 6, 2021. (In Polish)

2. Grebowiec, M. (2010). The role of traditional and regional products in consumer decisions in retail food market in Poland. Problems of World Agriculture, 10(26)12, 22–31. (In Polish)

3. Regulation (EU) No 1151/2012 of the European parliament and of the council of 21 November 2012 on quality schemes for agricultural products and foodstuffs. Official Journal of the European Union, 55, 1–29. https://doi.org/10.3000/19770677.L_2012.343.eng

4. Gublicka, B. (2014). Traditional and regional food in Poland. Institute of Agricultural and Food Economics — National Research Institution, 116, 9–38; 78–111. ISBN978–83–7658–495–9. (In Polish)

5. Zakowska-Blemas, S. (2012). Traditional food from the consumers’ vantage point. Żywność. Nauka. Technologia. Jakość (Food. Science. Technology. Quality), 3(83), 5–18. (In Polish)

6. Korzeniowska-Ginter, R. (2009). Polish traditional and regional cuisine in consciousness of young consumers. Inżynieria i Apuratura Chemiczna (Chemical Engineering and Equipment), 48(2), 70–71. (In Polish)

7. Szlachciuk, J., Bobola, A., Oźimek, I., Czyż, E. (2017). The familiarity with Polish regional and traditional products among young consumers. Ekonomiczne Problemy Turystyki (Economic Problems of Tourism), 3(39), 77–86. https://doi.org/10.19276/ ept.2017.3.39–07 (In Polish)

8. Sajdakowska, M., Zakowska-Blemans, S. (2009). Polish consumer perception of traditional food based on the qualitative survey. Żywność. Nauka. Technologia. Jakość (Food. Science. Technology. Quality), 3(84), 95–104. (In Polish)

9. Council Regulation (EEC) No 2081/92 of 14 July 1992 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs. Official Journal of the European Communities, 35, 1–9.

10. Commission Regulation (EEC) No 1848/93 of 9 July 1993 laying down detailed rules for the application of Council Regulation (EEC) No 2082/92 on certificates of specific character for agricultural products and foodstuffs. Official Journal of the European Communities, 35, 1–9.

11. Halagarda, M., Kędzior, W., Pyrzyńska, E. (2013). Protection and registration rules for regional and traditional products. Cracow Review of Economics and Management, 918, 15–31. (In Polish)

12. Products registered as Protected Designations of Origin, Protected Geographical Indications and Traditional Specialties Guaranteed. Retrieved from https://www.gov.pl/web/rolnictwo/produkt-y-zarejestrowane-jako-chronione-nazwy-pochodzenia-chromione-oznaczenia-geograficzne-oraz-gwarantowane-tradycyjne-specialnosci. Accessed on November 1, 2021. (In Polish)

13. Klos, Z. (2012). Let’s be interested in regional products. Quality: Problems, 44, 7–8. (In Polish)

14. Hunter’s sausage. Retrieved from https://sokolow.pl/produkty/kielbasa-mysliwska. Accessed on August 9, 2021. (In Polish)

15. Malecki, J., Solowiej, B. G. (2019). Traditional and regional meat products in Poland. IOP Conference Series: Earth and Environmental Science, 333(1), Article 012006. 10.1088/1755–1315/333/1/012006

16. Staroń, M. (2014). Discover Polish food. Warsaw: Polish Food, 2014.

17. Kabanossy — Traditional Specialty Guaranteed. Retrieved from http://gieldaspozywcza.pl/Wiadomosci/Kabanossy-Gwarantowane-Tradycyjna-Specjalnosc-C5%9B%CI%87–50547. html. Accessed on August 9, 2021. (In Polish)

18. Śmiechowska, M. (2014). Ensuring authenticity and reliability of regional and traditional products. Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu (Annals of the Polish Association of Agricultural and Agrobusiness Economists), 16(3), 282–287. (In Polish)

19. Saluk-Justyszczak, J., Kołodziejczyk, J., Babicz, K. Królewska, K. (2010). Functional food — a role of nutraceuticals in cardiovascular disease prevention. Kosmos (Cosmos). Problems of biotechnological sciences, 59(3–4), 527–538. (In Polish)

20. Kozłowska-Strawska, J., Badora, A., Chwil, S. (2017). Functional and traditional food — properties and influence on consumer attitudes. Problems of Hygiene and Epidemiology, 56, 212–216. (In Polish)

21. Nowak, C. (2020). Regional and traditional products in economic development promotion and rural cultural heritage protection. Journal of Tourism and Regional Development, 13, 103–115. https://doi.org/10.22630/TIRR.2020.13.9 (In Polish)

22. List of traditional products — Ministry of Agriculture and Rural Development — Gov.pl website. Retrieved from https://www.gov.pl/web/rolnictwo/lista-produktow-tradycyjnych. Accessed on August 8, 2021. (In Polish).

23. Bacon stewed in beer — Ministry of Agriculture and Rural Development — Gov.pl website. Retrieved from https://www.gov.pl/web/rolnictwo/boczek-duszony-w-piwie. Accessed on August 9, 2021. (In Polish)

24. Kindziuk from Puńsk — Ministry of Agriculture and Rural Development — Gov.pl website. Retrieved from https://www.gov.pl/web/rolnictwo/kindziuk-z-punska. Accessed on May 28, 2021. (In Polish)

25. Kuchlewska, M. Meat in Polish regional cuisine — Ogólnopolski Informator Masarski. Retrieved from https://informatormasarski.pl/przetwornictwo-z-gromykiem/mieso-w-polskiej-kuchni-regionalnej/ Accessed on August 6, 2021. (In Polish)

26. Biłgorajska sousage — Ministry of Agriculture and Rural Development — Gov.pl website. Retrieved from https://www.gov.pl/web/
27. In the land of Lublin’s traditional products. Retrieved from https://www.lubelskie.pl/file/2020/01/W-krajinie-lubelskich-produktow-tradycyjnych.pdf. Accessed on August 9, 2021. (In Polish)

28. The Ministry of Agriculture and Rural Development. Retrieved from http://www.mir.gov.pl/pol/Jakosc-zywnosci/Produkty-regionalne-itradycyjne/Produktyzarejestrowane-jako-Chronione-Nazwy-Pochodzenia-Chronione-Qzn. Accessed on August 9, 2021.

29. ‘Salceson polski’ from the Karkonosze Region — Ministry of Agriculture and Rural Development — Gov.pl website. Retrieved from https://www.gov.pl/web/rolnictwo/salceson-polski-z-karkonoszy. Accessed on May 28, 2021. (In Polish)

30. Goose pate — Ministry of Agriculture and Rural Development — Gov.pl website. Retrieved from https://www.gov.pl/web/rolnictwo/pasztet-z-gesi. Accessed on August 7, 2021. (In Polish)

31. Masurian smoked lard — Ministry of Agriculture and Rural Development — Gov.pl website. Retrieved from https://www.gov.pl/web/rolnictwo/mazurska-slonina-wedzona. Accessed on August 9, 2021. (In Polish)

32. Babicz-Zielińska, E., Zabrocki, R. (2007). Consumer of the XXIst Century. Przemysł Spożywczy (Food Industry), 1, 6–8. (In Polish)

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