

## ANALYSIS OF THE STATUS OF FOOD AND DRINKS PROTECTED BY GEOGRAPHICAL INDICATION SCHEMES IN ROMANIA AND EUROPEAN UNION

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### Abstract

*Food production is experiencing nowadays the transition to "smart" products which are processed by new protective techniques or minimally processed; there is also an increasing interest in traditional foods, which are perceived as healthier, and more environmentally friendly. In this regard, EU agricultural policies are based on specific measures for the entire food chain, aimed at reducing food waste and increasing sustainability; this has an essential role in protecting the availability, accessibility, and quality of agri-food products. In this paper, we focused on presenting the main categories of foods and drinks protected by geographical indication schemes PDO (Protected Designation of Origin), PGI (Protected Geographical Indication), TSG (Traditional Speciality Guaranteed), GI (Geographical Indication) at the EU and Romanian levels. We presented the statistics based on eAmbrosia EU and the Romanian Ministry of Agriculture database, the procedure for registration, and the role of this certification for the producers, community reputation, and branding.*

**Key words:** eAmbrosia database, GI, PDO, PGI, quality schemes, registration, statistics, TSG.

### INTRODUCTION

Consumers appreciate food quality when deciding to buy food which is also important for manufacturers when negotiating food products' prices. Food schemes were implemented and used by the European Commission (EU) in order to protect food products with specific quality characteristics. The EU agricultural policy is focused on the "quality switch" in the food chain which means the orientation of food production towards standardized quality designed foods and on local, traditional, and organic production.

These regulations have a specific regional or local impact on social, economic, and environmental levels and also may determine an increased consumer interest (Poetschki et al., 2021).

There is an increased perception of the EU food schemes for quality in the context of consumers' high concern on health issues and implications (food additives, sugar, and fat content and genetically modified organisms) but still low interest in eco-labeling and EU food certifications (Costea et al., 2012).

EU has developed food quality systems to secure and advocate foods with special characteristics connected to their geographic origin, organic processing, and also for traditional foods. These systems are a useful tool to help highlight the quality and traditions associated with registered products and to reassure consumers that they are genuine products, not imitations that seek to benefit from the good name and reputation of the original (Sadilek et al., 2016; Tregear et al., 2016).

All these quality schemes are labelled with a specific EU logo for origin and quality. The logo indicates that the labelled product has certain characteristics resulting from the geographic location in which it was manufactured or from traditional ingredients or manufacturing processes. The logo also informs customers of the quality, origin, and/or authenticity of the food (Xu et al., 2022).

In addition, most activities related to the production and processing of food products protected by quality schemes take place in rural areas; this can have an immediate

benefit. From a cultural perspective, programs that focus on the geographical origins and traditional aspects of food contribute to the preservation and promotion of cultural heritage (including the preservation of gastronomic traditions). As a product becomes more popular with consumers, it can attract tourists who may be interested in the history of the product and the region, how it was made, and the quality control process. Therefore, other relevant sectors (tourism and hospitality) in rural areas can also benefit from these quality systems. Economic development in these areas can also bring other benefits, such as improved infrastructure and public facilities, better use of land and efficient management of natural resources (Dogan et al., 2012).

The PDO and PGI quality schemes grant the exclusive right to use registered and protected product names to the manufacturer who made the initial application and to any other manufacturer who can meet the requirements of the scheme. With regard to PDO and PGI, producers outside the geographic location are expressly excluded from the use of registered names. Using an approved logo allows manufacturers to make informed choices by communicating to consumers the quality and authenticity of their products. Finally, several studies have shown that these programs make an invaluable contribution to sustainable rural development, for example by conserving local crop varieties, supporting rural diversity and social cohesion, and creating employment opportunities (Blakeney et al., 2021; Conneely et al., 2015; Crescenzi et al., 2022).

Food products that are protected due to their geographic origin fall under the EU intellectual property system. This means that the names of these products are protected both in the EU and abroad. Specific protection agreements are often concluded between the EU and third countries to ensure that products are not misused or counterfeited. Conversely, products originating abroad can also be protected within the EU if an agreement is reached (Curzi et al., 2021; Cardoso et al., 2022).

Quality schemes for products and geographic indication items address a chance for the improvement of the small, neighborhood

economy, particularly in provincial regions and hindered regions (Muça et al., 2022).

## MATERIALS AND METHODS

For this analysis, we have investigated all the types and categories of food and drinks subjected to registration under quality schemes at the EU and national levels. The data was collected from the European Union official website, eAmbrosia database (Figure 1), accessed on 30 March 2023, and from the Romanian Ministry of Agriculture and Rural Development website (<https://www.madr.ro/>, accessed on 30 March 2023) and CPAC (<https://cpac.afir.info/>, accessed on 30 March 2023), only for the Romanian products.



Figure 1. Screenshot for the eAmbrosia website, the EU quality systems registry

In the Register of Agricultural and Food Products, foods are classified into different classes: cheese; other products of animal origin (eggs, honey, dairy products except for butter, etc.); fresh meat, meat products (boiled, salted, smoked, etc.); fresh or processed fruits, vegetables and grains; bread, pastries, cakes, confectionery, biscuits, and other bakery products; oils and fats; fresh fish, molluscs and crustaceans and derived products; beer; chocolate and derived products etc. Here is also a Wine register and a Register of spirits. All the quality schemes registered in Romania can be found, in addition to the eAmbrosia database, in CPAC database by the Ministry of Agriculture and Rural Development.

In the CPAC database, in addition to the DOP, IGP, GI, STG, Mountain Product, and Organic Product quality schemes, we can also find other nationally certified quality systems, namely Traditional Product, Established Recipe, and Certified Wines (Figure 2).

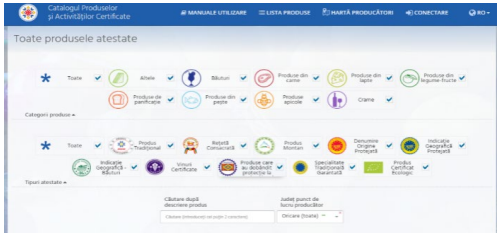


Figure 2. Screenshot for CPAC website, catalog of certified products and activities

## RESULTS AND DISCUSSIONS

The food market is now abundant in all types of products and consumers must identify criteria for choosing; these are often price and quality, but EU quality schemes become slowly a new tool to recognize the food quality products, based on sensory characteristics and geographical area (Sperdea, 2015).

The results of this study are centered on the main quality schemes: PDO (Protected Designation of Origin); PGI (Protected Geographical Indication); TSG (Traditional Speciality Guaranteed); GI (Geographical Indication). Based on data extracted from eAmbrosia, we have analysed the situation of each category of products, by status, country, and scheme types.

In the eAmbrosia database (accessed on March 2023), a number of 1942 products from the PDO quality scheme category, 1335 PGI, 61 STG and 257 GI were registered, applied and submitted at the European Union level.

Of the 3595 products with a special indication, 3344 were registered as follows:

- PDO: 1821 products with special indication;
- PGI: 1222 products with special indication;
- TSG: 56 products with special indication;
- GI: 245 products with special indication (Figure 3).

Compared to March 2021, the number of these types of products increased by 10.22% (for PDO), by 16.39% (for PGI), by 10.91% (for TSG) and 2.9% (for GI) (eAmbrosia, accessed May, 2021).

84 PDO quality scheme products, 189 PGI, 6 TSG, and 21 GI were registered, applied, and submitted in non-EU countries.

From the total products registered in non-EU countries, only 48 products were PDO registered, 162 registered PGI, 18 registered GI, and 4 products registered TSG (Figure 4).

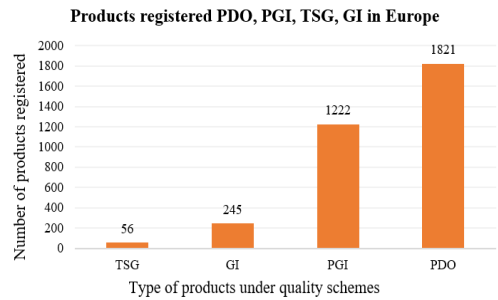


Figure 3. PDO, PGI, STG, and GI products number registered in the European Union

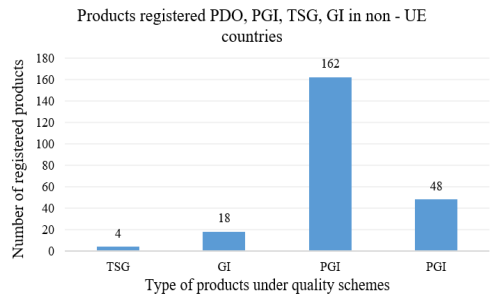


Figure 4. PDO, PGI, STG, and GI products number registered in non-EU countries

### ***PDO (Protected Designation of Origin) products***



*Products:* Food, agricultural products, and wines.

*Specifications:* All operations from production, processing, and handling should occur in the specific region. This means that the milk for the cheese-making must exclusively come from the region where the cheese is made.

*Example:* PDO Kalamata olives are produced entirely in the Kalamata region of Greece, using varieties of olives from that area.

*Label:* Mandatory for food and agricultural products, optional for wines.

Product names registered as PDO are those with the strongest links to the location where they were registered.

In the eAmbrosia database, there were 2.026 registered, published, and applied PDO products in EU with 1.821 registered.

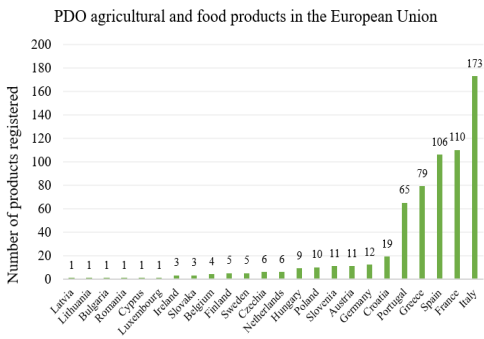


Figure 5. The country-by-country situation of PDO agricultural and food products registered in the EU

Italy with 173 products is the country with the most PDO-registered agricultural and food products (Figure 5) followed by France with 110 and Spain with 106 products, respectively. Romania, has only one registered product in the PDO category, Telemea de Ibănești.

The PDO quality schemes category includes superior wines that present specific characteristics and must meet a series of quality-related requirements: the delimitation of the creation region, the viticultural assortment utilized, the winemaking techniques, the alcoholic strength by least normal volume, the examination and enthusiasm for the organoleptic qualities.

In the category of PDO wines, Italy and France lead the rankings (with 408 wines and 363, respectively).

Romania has 40 wines registered under PDO quality schemes, including Pietroasa, Însurăței, Adamclisi, Cotnari, Murfatlar, Odobesti, Sâmburești, Bohotin, Dealu Bujorului, Nicorești, Drăgășani, Cotești (Figure 6).

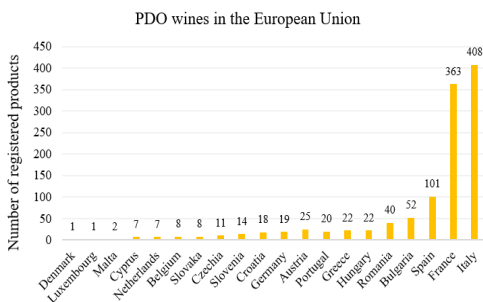


Figure 6. PDO wines registered in the EU countries

Famous French wines can be also found in this category, like vin Sante del Chianti, Pinerolese, Beames de Venise, La Grande Rue, Casa del Blanco, Granada, Coteaux Bourguignons, Nero Di Troia.

### PGI (Protected Geographical Indication) products



*Products:* Food, agricultural products and wines.

*Specifications:* For most items, no less than one of the phases of processing or handling should occur in a separate area. For example, Gouda Holland PGI is made with milk from dairy farms all over the Netherlands, while Noord-Hollandse Gouda PDO is only made with milk from the province of Noord-Holland.

*Example:* Queso Castellano is a cheese that it is made in Castilla y León made only with raw or pasteurized sheep's milk, 100% from Castilla y León.

*Label:* Mandatory for food and agricultural products, optional for wines.

PGI places an emphasis on the connection between the name of a certain quality, reputation, or another characteristic that can essentially be attributed to the geographical origin of the products (Glogovețan et al., 2022). Regarding the situation of agricultural and food products PGI registered, published, and applied, at the EU level, there were 870 products, with 783 registered.

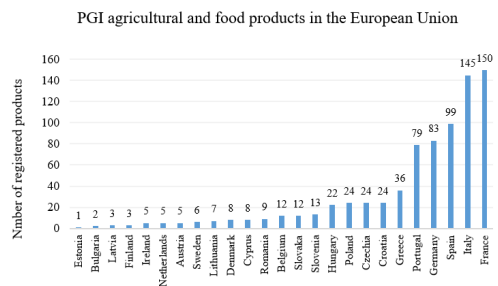


Figure 7. PGI agricultural and food products registered in the EU, by country

France and Italy are top of representatives in this product category: France with 150 PGI-registered agricultural and food products and Italy with 145 PGI-registered agricultural and food products (Figure 7). Romania registered a PGI product on 30.03.2023, Plăcinta Dobrogeană.

At the EU level, there were 439 wines registered as a PGI quality scheme.

As expected, Italy takes first place in the category of wines from PGI quality schemes with 118 wines, followed by Greece with 114 wines.

France also occupies an important place in the ranking of PGI wines, 3rd place, with 75 wines.

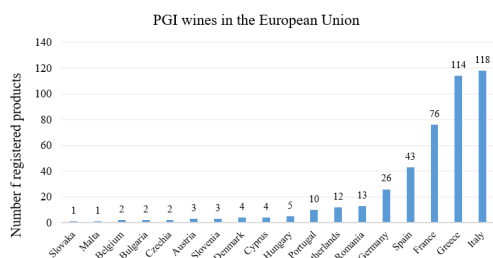


Figure 8. PGI wines registered in the EU, by country

### GI (Geographical Indication) products



**Products:** Spirits and flavored wines.

**Specifications:** At least one of the distillation or processing steps must take place in that region for the majority of products. However, the raw materials need not necessarily be from the same area.

**Example:** Nocino is a liqueur of ancient tradition, typical of the province of Modena since 1870. The raw material from which it is obtained, and which characterizes it sensorially, is the walnut hulls, collected before the hardening of the shell, with which an infusion of alcohol is made.

**Label:** Optional for all products.

If a particular quality, reputation, or another character can essentially be attributed to the geographical origin of the product, then the Geographical Indication (GI) protects the name of a spirit drink or aromatized wine that originates in a country, region, or locality.

The proportion of the production process that must take place in that region or the quantity of raw material that originates from that region is what distinguishes PDO from PGI.

The GI protection is applied only to alcoholic beverages and aromatized wines (Chifor et al., 2022).

At the level of the European Union, in March 2023, there were a number of 245 spirits registered in the eAmbrosia database as a GI quality scheme.

As shown in Figure 9, France occupies the most important place in this category, with 53 varieties of spirits, followed by Germany with 36 and Italy with 35 varieties each.

Following the evolution of processing technologies and developments in food science, consumers tend to be oriented toward traditional foods and recipes, manifesting their national identity, interest in food safety and security, or origin of products. In a study conducted by Petrescu-Mag (2017), it was observed that 67.6% of consumers buy products by the manufacturer's name, 45% take into consideration the country of origin when purchasing foods and 47.5% consider that special labels on the products are important.

Geographical indications and quality schemes can be used by stakeholders and authorities as a tool for quality and product marketing to consumers. It is observed that at EU level and also Romania there is a high concentration of wines with registered geographical specifications (Bichescu et al., 2017).

In the eAmbrosia database, at the EU level number of 56 STG agricultural and food products were registered in March 2023.

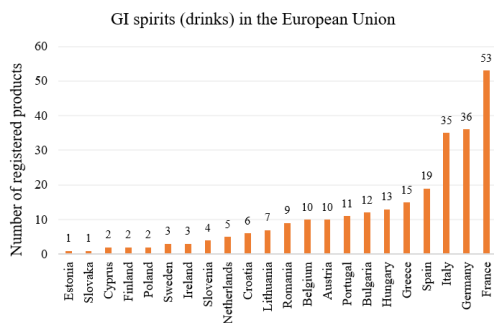


Figure 9. The country-by-country situation of GI-type spirits registered in the European Union

## TSG (Traditional specialty guaranteed) products



**Products:** Food and agricultural products.

**Specifications:** The minimum period of existence of a product on the market to acquire recognition is 30 years.

**Example:** Mozzarella Tradizionale TSG is a stringy, soft cheese made from whole fresh cow's milk, produced in southern Italy; its name comes from the verb mozzare, which means "to cut".

**Label:** Mandatory for all products.

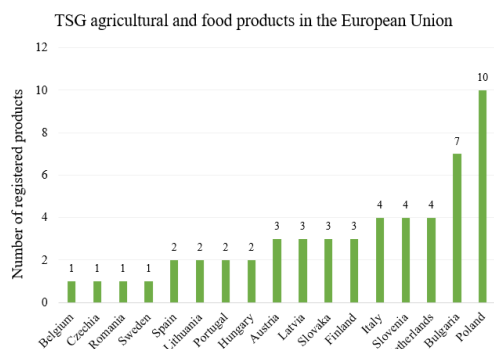


Figure 10. TSG agricultural and food products in the EU countries

TGS products underline the traditional characteristics like the specifics of the processing technology, food composition, its structure, without binds it to a particular geographic region. When a product is registered as an TSG, it is protected from misuse and counterfeiting.

In addition, each member state can use its own set of national and regional quality labels. The logos of the respective national quality schemes can be found on the packaging of products that are protected by those schemes, whether they are in countries outside of the EU or at the EU level (Mariani et al., 2021; Menapace & Moschini, 2021).

The situation of traditional STG products at the European level is shown in Figure 10, where their number for each country is shown.

Thus, Poland and Bulgaria are the countries with the most STG products registered, respectively 10 and 7 products. The Netherlands, Slovenia, and Italy also have 4 products each (Figure 10).

In this product category, Romania has only one registered product, namely traditional salad with carp roe.

Nowadays, the interest of Romanian producers in certification through EU schemes has been increasing and products that were known only at the regional level are becoming recognized in many areas of the country. In order to increase food sustainability, local authorities have implemented procedures for the attestation of traditional food products (Zugravu et al., 2021).

Until March 2023, Romania had registered, published and applied 83 products with special indication, of which 73 were registered, 10 having applied or published documentation; 47 products with a special Romanian PDO indication were submitted, registered, and published (Table 1).

Table 1. Registered and published Romanian PDO products

No	Product name and type	Registration date
1-34	Recaș; Segarcea; Miniș; Dealu Mare; Mehedinți; Oltina; Aiud; Lechința; Drăgășani; Alba Iulia; Sâmburești; Sebeș-Apolod; Banat; Cotnari; Iași; Iana; Bohotin; Crișana; Nicorești; Pietroasa; Dealul Bujorului; Dealul Mare; Panciu; Banu Mărăcine; Târnave; Murfatlar; Huși; Sarica Niculițel; Cotești; Odobești; Ștefănești; Babadağ; Dealu Mare	10/05/2007
35	Adamcliși	30/07/2007
36	Însurăței	14/11/2018
37	Telemea de Ibănești	15/03/2016

Table 2. Applications for PDO Romanian products

No	Product name and type	Application date
1	Jidvei	05/07/2022
2	Drăgășani	16/08/2021
3	Cotnari	16/02/2023
4	Bohotin	20/07/2021
5	Murfatlar	24/10/2022
6	Iași	06/03/2023

25 traditional Romanian PGI products were submitted, registered and published until March 2023 (Table 3).



Table 3. Registered and published Romanian PGI products

No.	Product name	Registration date
1-13	Viile Caraşului; Dealurile Munteniei; Dealurile Olteniei; Terasele Dunării; Colinele Dobrogei; Viile Timişului; Dealurile Zarandului; Dealurile Transilvaniei; Dealurile Sătmăruului Dealurile Crişanei; Dealurile Munteniei; Dealurile Moldovei, Dealurile Vrancei	28/04/2007
14.	Pleşcoi Sausages (Cârnaţi de Pleşcoi)	04/10/2019
15.	Danube Smocked Makerel (Scrumbie de Dunăre afumată)	03/12/2018
16.	Săveni cheese (Cascaval de Săveni)	22/04/2021
17.	Bloated fish from Bârsa County (Novac afumat din Țara Bârsei)	06/04/2017
18.	Topoloveni Plum Jam (Magiun de prune Topoloveni)	08/04/2011
19.	Sibiu Salami (Salam de Sibiu)	19/02/2016
20.	Tulcea pike roe salad (Salată cu icre de ştiucă de Tulcea)	04/06/2021
21.	Sibiu salted cheese (Telemea de Sibiu)	16/10/2019
22.	Dobrogean pie (Plăcintă dobrogeană)	30/03/2023

Table 4. Applications for Romanian PGI products

No.	Product name	Product type
1.	Terasele Dunării	Wine
2.	Salinate de Turda	Foods
3.	Pecica bread (Pită de Pecica)	

Only 2 traditional Romanian TSG products were submitted, registered, and published until March 2023 as can be seen in Table 6.

Table 5. Romanian GI products registered, published and applied in March 2023

No.	Product name	Registration date
1.	Vinars Vaslui	21/06/2005
2.	Vinars Segarcea	21/06/2005
3.	Horincă de Cămarzana	21/06/2005
4.	Vinars Vrancea	21/06/2005
5.	Pălincă	13/02/2008
6.	Vinars Murfatlar	21/06/2005
7.	Vinars Târnave	21/06/2005
8.	Tuică Zetea de Medieşu Aurit	21/06/2005
9.	Tuică de Argeş	21/06/2005

Table 6. Romanian TSG products registered, published and applied in March 2023

No.	Product name	Status	Registration date
1.	Traditional salad with carp roe	Registered	29/09/2021
2.	Marinated sardine	Applied	

Romania had 73 products registered as PDO, PGI, GI and TSG quality schemes, as follows:

- DOP: 41 foods and wines;
- PGI: 22 foods and wines;
- GI: 9 spirits;
- TSG: 1 food (Figure 11).

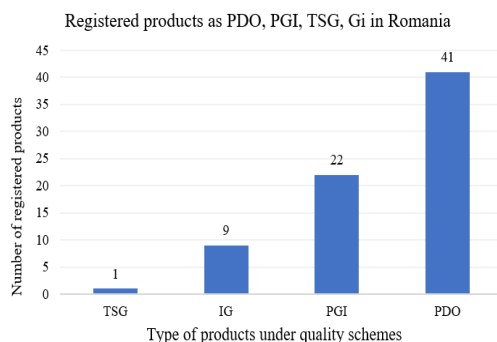


Figure 11. PDO, PGI, TSG, GI products number registered in Romania

## CONCLUSIONS

- The interest in the registration of quality schemes protected by certification labels is increasing, at the EU and also Romanian levels.
- More and more producers are following the consumer's interest and need for better, safer, less processed, traditional food products.
- Authorities and stakeholders are getting more prepared and active in supporting producers in their way for getting certifications, as a way of brand protecting, rural and communities developing. The quality schemes of food and drinks certified at EU or national level assure the proper safety of products, but, the risk of contamination in different phases of processing is not completely excluded. In this case, there is very important for the authorities to have tools for conducting controls on the food chain to ensure consumers' safety and security.

## REFERENCES

- Bichescu, C.I., & Stanciu, S. (2017). Concentration and Originality on the Wine Market. *Proceedings of 29th IBIMA Conference: Education Excellence and Innovation Management through Vision 2020: From Regional Development, Sustainability to Global Economic Growth*, Vienna, Austria, 1188–1199.
- Blakeney, M. (2021). The Role of Geographical Indications in Agricultural Sustainability and Economic Development. *Ann Agric Crop Sci.*, 6(1), 1069.
- Cardoso, V.A., Lourenzani, A.E.B.S., Caldas, M.M., Bernardo, C.H.C., & Bernardo, R. (2022). The benefits and barriers of geographical indications to producers: A review, *Renewable Agriculture and Food Systems*, 37, 707–719.
- Chifor, C., Arion, I.D., Isarie, V.I., & Arion, F.H. (2022). A Systematic Literature Review on European Food

- Quality Schemes in Romania, *Sustainability*, 14, 16176.
- Connely, R., & Mahon, M. (2015). Protected geographical indications: Institutional roles in food systems governance and rural development. *Geoforum*, 60, 14–21.
- Costea, C., & Chiru, C. (2012). Young Consumers' Attitudes and Purchasing Intentions towards Eco-Food. In *Proceedings of the 2012 2nd International Conference on Applied Social Science (ICASS 2012)*, Kuala Lumpur, Malaysia, 1, 510–516.
- Crescenzi, R., De Filippis, F., Giua, M., & Vaquero-Piñero, C. (2022). Geographical Indications and local development: the strength of territorial embeddedness, *Regional Studies*, 56(3), 381–393.
- Curzi, D., & Huysmans, M. (2021). The Impact of Protecting EU Geographical Indications in Trade Agreements. *Amer. J. Agr. Econ.*, 104(1), 364–384.
- Dogan, B., & Gokovali, U. (2012). Geographical indications: the aspects of rural development and marketing through the traditional products. *Procedia-Social and Behavioral Sciences*, 62, 761–765.
- Glogoveţan, A.I., Dabija, D.C., Fiore, M., & Pocol, C.B. (2022). Consumer Perception and Understanding of European Union Quality Schemes: A Systematic Literature Review. *Sustainability*, 14, 1667.
- Mariani, M., Casabianca, F., Cerdan, C., & Peri, I. (2021). Protecting Food Cultural Biodiversity: From Theory to Practice. Challenging the Geographical Indications and the Slow Food Models. *Sustainability*, 13, 5265.
- Menapace, L., & Moschini, G.C. (2012). Quality certification by geographical indications, trademarks and firm reputation. *European Review of Agricultural Economics*, 39 (4), 539–566.
- Muça, E., Pomianek, I., & Peneva, M. (2022). The Role of GI Products or Local Products in the Environment—Consumer Awareness and Preferences in Albania, Bulgaria and Poland. *Sustainability*, 14 (4), <https://doi.org/10.3390/su14010004>
- Petrescu-Mag, R.M., & Petrescu, D.C. (2017). Product Policy - Food Quality Labelling as Food Patriotism. Insights on Consumer Label Reading Behaviour. *Qual. Access Success*, 18, 327–333.
- Poetschki, K., Peerlings, J., & Dries, L. (2021). The impact of geographical indications on farm incomes in the EU olives and wine sector, *British Food Journal*, 123 (13), 579–598.
- Sadilek, T. (2016). System of quality labels in the European Union, *Ukrainian Food Journal*, 5 (3), 579–587
- Sperdea, N.M. (2015). European Quality Schemes Sgem 2015: Political Sciences, Law, Finance, Economics and Tourism; *VOL III Book Series International Multidisciplinary Scientific Conferences on Social Sciences and Arts Book Subtitle Economics and Tourism*; STEF92 Technology Ltd., Albena, Bulgaria, 267–274
- Tregear, A., Török, A., & Gorton, M. (2016). Geographical indications and upgrading of small-scale producers in global agro-food chains: A case study of the Mako' Onion Protected Designation of Origin. *Environment and Planning*, 48(2), 433–451.
- Xu, Z., Feng, Y., & Wei, H. (2022). Does Geographical Indication Certification Increase the Technical Complexity of Export Agricultural Products? *Front. Environ. Sci.*, 10 (892632), doi: 10.3389/fenvs.2022.892632
- Zugravu, C.A., Gafitianu, D., & Nicolau, A.I. (2021). Food, nutrition, and health in Romania. In *Nutritional and Health Aspects of Food in the Balkans, Nutritional and Health Aspects of Traditional and Ethnic Foods*; Elsevier Science Publishing Co. Inc.: Birmingham, UK, 227–248.
- \*\*\* eAmbrozia database, <https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/geographical-indications-register/>, accessed on 30 March 2023
- \*\*\* Ministry of Agriculture and Rural Development website (<https://www.madr.ro/>), accessed on 30 March 2023)
- \*\*\* CPAC - <https://cpac.afir.info/> (accessed on 30 March 2023)