

## ROMANIA'S LIVESTOCK SECTOR: CHALLENGES AND PERSPECTIVES ON PRODUCERS' ASSOCIATIONS

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### Abstract

*The paper proposes an analysis of producer associations within Romania's zootechnical sector. The research focuses on the structure, distribution, and activities of producer associations, highlighting their importance in rural development and identifying key challenges and opportunities related to the use of European funds. Documentation included the use of open-access articles available on platforms such as Google Scholar, ResearchGate, and Clarivate. Information about producer associations in the livestock sector was sourced from the website of the Ministry of Agriculture and Rural Development, while data on economic agents active in NACE Code 014 - Animal Raising - were obtained from the TopFirme.com platform. Relevant information from the websites of industry-specific associations was also selected to complement the analysis. The collected data were statistically processed and interpreted. The market concentration was evaluated using the Gini-Struck index calculation method. The research results indicate a low number of associative entities at the national level and a low market concentration, thereby highlighting the untapped potential of the zootechnical sector. The development of associative forms in Romania's zootechnical sector must be supported and promoted through public policies and measures for fiscal and administrative assistance.*

**Key words:** Gini-Struck Index, livestock production, producers' associations, rural development, Romania.

### INTRODUCTION

The zootechnical sector represents a significant component of Romanian agriculture, both in terms of its contribution to GDP and its impact on supporting rural areas. The territory inhabited by the Romanian population has a long-standing tradition of animal husbandry, facilitated by favorable natural resources: pastures with diverse vegetation, flowing water sources, and salt deposits essential for sheep and cattle. Unfortunately, the seasonal nature of production on upland pastures imposes major nutritional constraints on livestock production systems (Ministry of Agriculture and Rural Development - MADR, 2015).

Although animal-based food products are vital for the population and form a key component of national food security, Romania faces challenges in supplying domestically-produced goods to its own consumers, with the domestic market relying heavily on imports. In terms of the number of economic operators, the Romanian zootechnical sector

is less developed compared to the crop farming sector.

Research conducted by Ziarul Financiar reveals that the number of companies active in animal husbandry is 2.5 times lower than that of operators involved in cereal cultivation (Nițu, 2023).

Approximately 8,500 companies are registered in Romania for cereal cultivation, while only 3,300 companies declare zootechnical activities, as reported by Termene.ro data (2024).

Romania's zootechnical potential is underutilized, with the local sector characterized by a smaller number of animals relative to the country's agricultural land area compared to Western Europe (AgroTV, 2022). Additionally, Romanian farmers fail to maximize the value of crop production through the zootechnical sector, with much of the harvest being sold as raw material.

Research made by Sandu (2015) highlights a substantial reduction in livestock populations in Romania between 1990 and 2013: cattle (-59.18%), pigs (-66.22%), sheep (-35%), and

poultry (-44%), with only goat populations increasing by around 30%.

Animal husbandry should aim to ensure sufficient livestock numbers to meet the population's consumption needs while improving the genetic value of breeds to boost domestic consumption and export potential.

Vidu (2023), in an interview with the specialized journal *Agrointeligenta*, mentioned that the development of Romania's livestock sector occurs through two systems: intensive-industrial and traditional. While the intensive method ensures higher productivity, traditional animal husbandry methods should not be overlooked.

Romania's natural pastures have significant potential for livestock rearing, and the national zootechnical sector could theoretically feed over 70 million consumers without relying on imports (Gelatu, 2023).

Ensuring good breeding conditions in livestock farms, in compliance with European animal welfare regulations, is another critical characteristic necessary for the local sector (Enea et al., 2023).

National legislation outlines the following possible forms of association and cooperation in agriculture: producer groups, agricultural companies, associations, and cooperatives. These forms of association are diverse, shaped by the relationships established between agriculture and other sectors of the national economy, as well as within agriculture itself, between economic agents and units for storage, processing, and distribution of agricultural products (*Agrointeligenta*, 2015). According to current legislation, associations in Romanian agriculture can take the following forms: agricultural companies and other types of associations in agriculture (Law No. 36/1991, with amendments); associations (Government Ordinance No. 26/2000, approved by Law No. 246/2005, with amendments); and agricultural cooperatives (Law No. 566/2004, with amendments) (Parliament of Romania, 1991).

The development of producer associations can be a source of economic growth, optimizing the use of local resources and capitalizing on regional advantages. Members of agricultural associations can gain additional economic benefits, positively impacting rural

communities' welfare. At the European level, the development of specialized agricultural cooperatives in Western states, organized across various levels, is a key factor in increasing farmers' competitiveness, achieving high-performance products, and securing higher prices for cooperative members. Romanian farmers can benefit from Western experience in developing agricultural associations (Gherman et al., 2016).

A characteristic of Romanian agricultural cooperatives is their low level of investment in innovation, promotion, or rural development activities. Local associations, relatively newly established, differ from their Western counterparts, which have a tradition spanning hundreds of years. In Western cooperatives, local production is fully utilized (with activities such as collection, processing, and joint marketing), whereas Romanian units often limit themselves to selling raw materials or conducting imports (Marin & Turek-Rahoveanu, 2015).

A study by Crețu & Tudor (2020) among producer groups in Călărași focused on specific aspects of the development of associative forms in the analyzed area (results achieved, difficulties, advantages, disadvantages, and future plans). The research showed that the main benefits were increased negotiation power with suppliers and buyers, reduced production costs per unit, and the introduction of modern agricultural technologies. The success of associations strongly depends on the cohesion of cooperative members and the level of human involvement.

The agricultural sector is a crucial component of the Romanian economy but is affected by high inflation, rising prices of fertilizers and fuels, and variable climatic conditions (severe drought, floods, extreme temperatures), leading to significant losses for local farmers. Producer associations could mitigate these factors by reducing risks (Florea et al., 2019). Research by Florea et al. (2020) investigates investment options for managers of 219 agricultural cooperatives in Romania, highlighting the importance of modernizing storage facilities, processing primary products to obtain high-value-added goods,

digitization, and promoting the circular economy.

Results reveal that these investments can strengthen farmers' roles in the food supply chain, reduce specific risks, and ensure sustainable development, with a direct impact on national food security.

Excessive fragmentation of agricultural land in Romania, due to the lack of vision in land restitution policies after the political regime change and the inefficiency of applied reparceling measures, has led to 3.422 million agricultural holdings, the highest number in the EU Member States, over 92% of which have utilized agricultural areas of less than 5 hectares.

A study by Zlati et al. (2023) analyzes the reasons why farmers join agricultural associations, using the fsQCA method. The main negative influence factors identified were governmental policies, which led to the disappearance of several producer groups in the South-East region, emphasizing the importance of state institutional support for the viability of these entities.

MATERIALS AND METHODS

For the bibliographic documentation, representative articles were selected from the Clarivate, Google Scholar, and ResearchGate databases, complemented by publications and journals of producer associations.

Legislative regulations and information on accessing European funds were obtained from documents issued by the European Commission, the Ministry of Agriculture and Rural Development, and the Agency for Financing Rural Investments.

Data regarding producer associations in Romania's zootechnical sector were extracted from the database of the Ministry of Agriculture and Rural Development. For the economic analysis of the livestock sector, statistics from TopFirme.com were used.

The selected information was processed, graphically represented, and interpreted. To evaluate the concentration of associations in specific areas, the method based on the Gini-Struck Index calculation was applied.

The obtained results were compared with findings from related studies in the specialized literature.

RESULTS AND DISCUSSIONS

Key Economic Features of Romania's Livestock Industry

According to "NACE Code 014 - Animal Raising", this group includes the raising and breeding of all animals, except aquatic animals. It excludes activities related to the care and maintenance of farm animals (NACE 0162) and the production of raw hides obtained from the slaughter of animals in slaughterhouses (NACE 1011) (NACE Codes.RO, 2024). The classes within this group include the following activities (Table 1).

Table 1. Specific Activities for NACE 014

NACE Code	Activity
0141	Raising of dairy cattle
0142	Raising of other cattle
0143	Raising of horses and other equines
0144	Raising of camels and camelids
0145	Raising of sheep and goats
0146	Raising of pigs
0147	Raising of poultry
0149	Raising of other animals

Source: Coduri CAEN.RO (2024).

According to data provided by the TopFirme.com platform, there are approximately 3,299 economic operators with their main activity declared under the NACE Code 014 group. The distribution of economic operators across the eight specific activity categories is uneven (Figure 1).

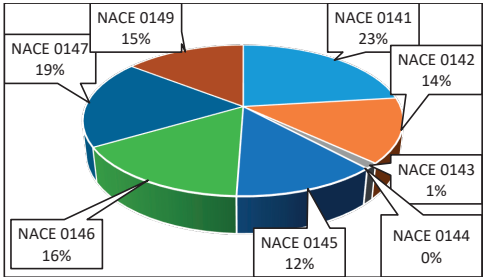


Figure 1. Companie by NACE activities  
Source: Authors, by using TopFirme.com (2024)

According to data provided by the TopFirme.com platform, there are approximately 3,299 economic operators with their main activity declared under NACE Code 014 - Animal Raising. The distribution of economic operators across the eight specific activity categories is uneven (Figure 1). Rankings of companies are made by the platform based on the latest submitted financial statements, for informational purposes (TopFirme.com, 2024).

The “NACE Code 0141 - Raising of Dairy Cattle in Romania” presents the following data: 762 economic operators, representing 0.03% of the total economic operators in Romania, with a total turnover of 1.3 billion lei/approximately 299 million euros (equivalent to 0.05% of the country’s total turnover), and a net profit of 153.2 million lei/approximately 34.8 million euros (0.03% of the total national net profit). The sector employs 2,831 workers, representing 0.07% of the total employees in Romania. A Top 5 ranking of counties by turnover includes Alba (262.7 million lei/9.7 million euros), Bistrița-Năsăud (96.6 million lei/22 million euros), Mureș (87 million lei/19.8 million euros), Arad (84.2 million lei/19.1 million euros), and Brașov (82.9 million lei/18.8 million euros). The counties of Alba, Bistrița-Năsăud, and Mureș have a strong presence in this sector in terms of both the number of economic operators and turnover. Although the sector represents a relatively small share of the Romanian economy, it plays a key role in ensuring milk and dairy product production, contributing to national food security and rural development.

In the “NACE Code 0142 - Raising of Other Cattle” sector in Romania, 455 economic operators are registered (0.02% of the total economic operators in Romania), with a cumulative turnover of 947.3 million lei/approximately 215.3 million euros (0.04% of the total national turnover) and a net profit of 57.7 million lei/approximately 13.1 million euros (0.01% of the national net profit).

This sector employs 1,062 people, representing 0.03% of the total workforce in Romania. The Top 5 counties by turnover include Maramureș (137.5 million lei/31.3 million euros), Prahova (126.4 million

lei/28.7 million euros), Bihor (97.4 million lei/22.1 million euros), Sibiu (94 million lei/21.4 million euros), and Harghita (69.2 million lei/15.7 million euros).

The counties of Maramureș, Prahova, and Bihor have a strong presence in this sector in terms of the number of economic operators and turnover. The sector plays an important role in supplying the domestic market with beef.

40 economic operators are registered with their primary activity under “NACE Code 0143 - Raising of Horses and Other Equines”, with a combined turnover of 98.3 million lei/approximately 22.3 million euros, a net profit of 1.8 million lei/approximately 409,730 euros, and 666 jobs. The Top 5 counties include Bucharest (68.7 million lei/15.6 million euros), Bihor (18.3 million lei/4.2 million euros), Arad (4.1 million lei/936,990 euros), Ilfov (1.6 million lei/357,445 euros), and Sibiu (1.3 million lei/293,374 euros). The sector plays an important role in promoting equestrian activities and conserving horse breeds. Bucharest and Bihor cover approximately 85% of the number of economic operators as well as turnover.

A single economic operator, located in Vâlcea County, conducts activities declared under “NACE Code 0144 - Raising of Camels and Camelids”, with a declared turnover of 219,134 lei/49,803 euros, a net profit of 14,048 lei/3,193 euros, and two employees.

Romania has a long-standing tradition in “Sheep and goat farming NACE Code 0145”. There are 410 economic operators registered with this sector as their primary activity, with a combined turnover of 936.7 million lei/212.9 million euros (0.04% of the national total), a net profit of 36.1 million lei/8.2 million euros, and 737 jobs (0.02% of the national total).

The Top 5 counties by turnover include Brașov (142.9 million lei/32.5 million euros), Hunedoara (141.8 million lei/32.2 million euros), Timiș (119 million lei/27 million euros), Tulcea (103.3 million lei/23.5 million euros), and Mureș (93.7 million lei/21.3 million euros). Brașov, Hunedoara, and Timiș are counties with significant contributions to

the sector in terms of both the number of economic operators and turnover.

Romania is the leading exporter of live sheep in the European Union, with a total export value of 5,722,433 euros (912.9 tons, 6.27 euros/kg) (Profit.ro, 2024).

In the “Pig farming sector in Romania - NACE Code 0146”, there are 527 economic operators (0.02% of the total economic operators in Romania) with a combined turnover of 3.1 billion lei/710.5 million euros (0.12% of the total national turnover), a net profit of 285.1 million lei/approximately 64.8 million euros, and 3,235 jobs (approximately 0.08% of the total workforce in Romania). Counties with significant impact on this sector include Vrancea (390.2 million lei/88.7 million euros), Vâlcea (360.2 million lei/81.9 million euros), Ilfov (236.7 million lei/53.8 million euros), Neamț (217.9 million lei/49.5 million euros), and Bihor (188.3 million lei/42.8 million euros). Although this sector represents a small share of the national economy, it covers part of the domestic pork consumption.

The “Poultry farming sector - NACE Code 0147” has shown significant growth in recent years. At the national level, this sector is the only one that has grown compared to the communist period (+60%) and covers domestic consumption, with surplus available for export. In 2023, Romania produced 723,000 tons of poultry meat (over 51% of the total meat production at the national level), with an average consumption level of 28.2 kilograms per capita per year (Cicovschi, 2024). The sector includes 626 economic operators (0.02% of the total), with a combined turnover of 6.6 billion lei/1.5 billion euros (0.26% of the country's total turnover), a net profit of 630.4 million lei/143.3 million euros, and 8,959 jobs. The Top 5 counties in terms of turnover and number of employees at the national level include Dolj (725.5 million lei/164.9 million euros), Vâlcea (506.2 million lei/115 million euros), Bihor (447.7 million lei/101.8 million euros), Brașov (402.4 million lei/91.5 million euros), and Prahova (369.4 million lei/84 million euros).

Although the sector's contribution to the national economy is small, its impact on

national food security is significant, ensuring the population's needs for poultry meat and eggs.

Companies with their primary activity under “NACE Code 0149 - Raising of Other Animals” represent 478 economic operators (0.02% of the total economic operators in Romania), with a combined turnover of 118.5 million lei/26.9 million euros, a net profit of 19 million lei/4.3 million euros, and 462 employees (0.01% of the total workforce in Romania).

Economic operators from Brașov (23.8 million lei/5.4 million euros), Bucharest (23 million lei/5.2 million euros), Argeș (8.4 million lei/1.9 million euros), and Cluj (8 million lei/1.8 million euros) account for over 55% of the sector's turnover.

The main specific activities in this sector in Romania include beekeeping (for honey and other apicultural products), snail farming (for domestic consumption and export), silkworm farming (for natural silk production), fur animal farming (as long as it remains permitted nationally), and rabbit farming (for meat and fur). Starting in 2027, the farming of minks and chinchillas for fur will be banned in Romania (Petrache, 2024).

### **Associations and Producer Groups in Romania's Zootechnical Sector**

The Ministry of Agriculture and Rural Development (MADR) provides a list of representative associations and federations in the animal husbandry sector (MADR, 2024). According to the information from the ministry, as of 2024, there are 38 representative associations and federations registered nationally in the field of zootechnics.

The distribution of associations based on the animal species they represent is shown in Figure 2.

Most associations are registered in the sheep and goat farming sector, followed by cattle farming and pig farming.

Across counties, the distribution includes only 35 counties (including Bucharest), each hosting at least one association in the field (Figure 3).



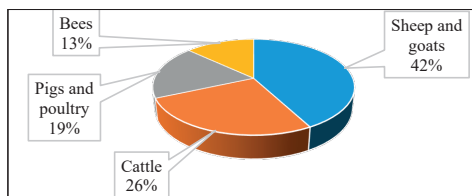


Figure 2. Associations by livestock activities  
Source: Authors, by using MADR (2024)

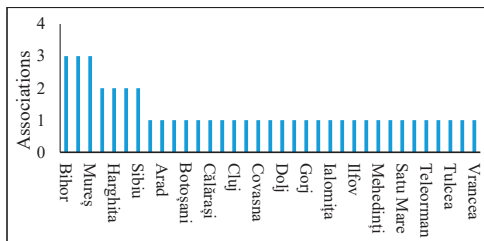


Figure 3. Associations by counties  
Source: Authors, by using MADR (2024)

The counties of Bihor, Brașov, and Mureș each have three associations registered, while Bacău, Harghita, Neamț, and Sibiu each have two associations.

Some national federations have branches in multiple counties, which is why the total count of counties with at least one registered associative entity amounts to 45.

The counties of Brăila, Călărași, Galați, Sălaj, Satu Mare, and Vaslui have no registered organizations. Correlating information about zootechnical associations with data on economic agents under NACE codes reveals that the counties of Brașov, Mureș, and Bihor, frequently mentioned among the economic leaders in the zootechnical sector, also stand out by having a larger number of associations. Counties with significant activity in animal husbandry tend to be better represented through associative forms.

The presence of these organizations can serve as an indicator of the level of organization and access to resources, factors that directly contribute to the development of the zootechnical sector.

The calculation of the Gini-Struck Index (GSI) for the Romanian zootechnical sector yields a value of 0.081738553, which indicates an excessively diversified market. The calculation method and the interpretation of results were recommended by Săvoiu et al. (2010).

## CONCLUSIONS

The research highlighted the role of the zootechnical sector in Romania's agricultural economy, both in terms of its contribution to GDP and its impact on rural development and food security. The relatively small number of associations and cooperatives compared to other European countries reflects the low level of organization and cooperation among domestic agricultural producers, which limits the sector's competitiveness. There is an uneven distribution of associations across counties, which may indicate a lack of representation in certain regions, potentially affecting farmers' ability to access development funds and markets. The low value of the Gini-Struck Index indicates excessive diversification and low concentration of associations, suggesting untapped potential for consolidation and collaboration.

There is significant growth potential for Romania's zootechnical sector through the optimal use of local resources, the promotion of animal welfare, and the adoption of modern technologies. However, government strategies and support measures are needed to encourage producer associations and to reduce gaps compared to practices in other European Union member states.

## REFERENCES

- Agrointeligenta (2015). *Forms of association in agriculture: producer group, agricultural company, association and cooperative*. Available at <https://agrointel.ro/30457/forme-de-asociere-in-agricultura-grupul-de-producatori-societatea-agricola-asociatia-si-cooperativa>
- AgroTV (2022). *The livestock sector in Romania, numerically inferior to Europe*. Available at <https://agro-tv.ro/sectorul-zootehnic-din-romania-inferioritate-numerica>.
- Cicovschi, A. (2024). *Romanians are consuming more and more chicken: it is cheaper than pork*. Available at <https://adevarul.ro/economie/romanii-consuma-tot-mai-multa-carne-de-pui-este-2396349.html>.
- Codes CAEN. (2024). Codes CAEN 2024. GRUPA CAEN 014. <https://www.coduricaen.ro/014-cresterea-animalelor>.
- Crețu, O.R., & Tudor, V.C. (2020). Economic and social impact of associations in groups of agricultural producers - a case study in Romania. *Scientific Papers Series Management, Economic*

- Engineering in Agriculture and Rural Development*, 20(2), 183-190.
- Enea, D.N., Ben Fraj, S., Acatincai, S., & Vidu, L. (2023). Study on the welfare of dairy cows on farms in Southern Romania. *Scientific Papers. Series D. Animal Science*, LXVI (1), 286-291.
- Florea, A. M., Radu, R. I., & Stanciu, S. (2020). The influence of the associative forms in the development of the Romanian agriculture during the last century. *31st IBIMA Conference: Innovation Management and Education Excellence through Vision*, 4302-4311.
- Florea, A.M., Capatina, A., Radu, R.I., Serban, C., Boboc, M.G., Stoica, C., Munteanu, M., Ion, I.M., & Stanciu, S. (2019). Limiting Factors that Influence the Formation of Producer Groups in the South-East Region of Romania: A Fuzzy Set Qualitative Comparative Analysis (fsQCA). *Sustainability*, 11(6), 1614. <https://doi.org/10.3390/su11061614>.
- Gelatu, D. (2023). *Livia Vidu, USAMV Bucharest: "We could feed 70 million inhabitants without having to import anything at all."* <https://agrointel.ro/251272/prof-dr-livia-vidu-usamv-bucuresti-potential-agricol-romania>
- Gherman, R., Iancu, T., Dincu A.M., & Brad, I. (2016). Professional Associations and Agricultural Cooperatives from Romania and U.E. – Key Factor in the Development of Agriculture. *Scientific Papers: Animal Science and Biotechnologies*, 49 (1), 265-269.
- Marin, A., & Turek-Rahoveanu, P. (2015). Analysis of the forms of association/cooperation in Romania. In *The Research Institute for Agriculture Economy and Rural Development. International Symposium. Agrarian Economy and Rural Development: Realities and Perspectives for Romania. Proceedings*, 460-465. Available at <file:///D:/New%20folder/ssrn-2745776.pdf>.
- MADR (2015). *Development of the livestock sector in disadvantaged areas*. Available at <http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice/PT33.pdf>.
- MADR (2024). *List of representative agricultural associations/federations*. Available at <https://www.madr.ro/docs/agricultura/zootehnie/lista-asociatii-federatii-reprezentative-din-zootehnie.pdf>.
- Nitu, F. (2023). *The best proof that we are simple exporters of cereals. In Romania, there are 2.5 times more companies that grow cereals than those that do animal husbandry: in Brăila the ratio is 11 to 1, in Teleorman 10 to 1, and in Ialomița 9 to 1*. Available at <https://www.zf.ro/companii/cea-buna-dovada-simpli-exportatori-cereale-romania-2-5-ori-multe-21708120>.
- Parliament of Romania (1991). *Law No. 36/1991 on agricultural companies and other forms of association in agriculture*. Available at <https://lege5.ro/Gratuit/gy3denjt/legea-nr-36-1991-privind-societatile-agricole-si-alte-forme-de-asociere-in-agricultura>.
- Petrache, C. (2024). *Farms that will be banned in Romania. These animals will no longer be able to be raised*. Available at <https://www.fanatik.ro/fermele-care-vor-fi-interzise-in-romania-aceste-animale-nu-vor-mai-putea-fi-crescute-20868621>.
- Profit.ro (2024). *Romania - the largest exporter of live sheep in the European Union*. Available at <https://www.profit.ro/povesti-cu-profit/agribusiness/romania-cel-mai-mare-exportator-de-ovine-vii-din-uniunea-europeana-21765967>.
- Sandu, M. (2015). *Assessment of Romanian Livestock Sector Available from the Perspective of Animal Food Products*. The impact of socio-economic and technological transformations at national, European and global levels, 7(7). Available at SSRN: <https://ssrn.com/abstract=2672839>
- Săvoiu, G., Crăciuneanu, V., & Țaicu, M. (2010). A new statistical method for analyzing market concentration or diversification. *Romanian Journal of Statistics*, 2, [https://www.revistadestatistica.ro/Articole/2010/A3\\_ro\\_2-2010.pdf](https://www.revistadestatistica.ro/Articole/2010/A3_ro_2-2010.pdf).
- Termene.ro (2024). Companies. <https://termene.ro/catalog/firme>.
- TopFirme.com. (2024). Codes CAEN 0141-0149, <https://www.topfirme.com>.
- Zlati, M.L., Florea, A.M., Antohi, V.M., Dinca, M.S., Bercu, F., Fortea, C., & Stanciu, S. (2023). Financing Romanian Agricultural Cooperatives' Investments for the 2023-2027 Horizon. *Sustainability*, 15(3), 2306. <https://doi.org/10.3390/su15032306>.

# TECHNOLOGIES OF THE AGRO FOOD PRODUCTS PROCESSING



