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EVOLUTION OF ANIMAL AGRICULTURAL PRODUCTION IN ILFOV COUNTY, ROMANIA: CASE STUDY FOR BUFTEA AREA

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ABSTRACT

The paper analyzes trends in livestock populations and animal agricultural production in Ilfov County, with a case study focused on the Buftea area during the period 2017-2022. The findings reveal significant changes and challenges in this sector. By 2022, notable decreases were observed across nearly all livestock categories, with the exception of bee families, which recorded a 6.25% increase in numbers. The most dramatic decline was in pig herds, which fell by an alarming 81.59%, reflecting broader issues such as disease outbreaks (e.g., African swine fever), economic pressures, or changes in agricultural practices. Other livestock categories, including cattle, sheep, goats, horses, and poultry raised for meat or eggs, also experienced significant reductions, highlighting a major contraction in livestock farming activities. Animal agricultural production followed a similar downward trend. Meat, milk, and egg production all decreased over the studied period, corresponding to the reduced livestock numbers. However, one notable exception was honey production, which increased by 17.37%, suggesting a growing interest in or resilience within the beekeeping sector in the region. This increase also highlights Ilfov County's potential for expanding apiculture, supported by favorable environmental conditions and market demand. The statistical data available on the website of the National Institute of Statistics and the data provided by Buftea City Hall were used for the elaboration of the article.

Keywords: *Buftea area, livestock, Ilfov County, animal agricultural production.*

INTRODUCTION

Ilfov County is located in the South-Muntenia region and borders Bucharest (ADRB, 2023). Agriculture, including the livestock sector, benefits from favorable climatic conditions and good infrastructure (Mărcuță et al., 2023). The proximity to the urban market ensures that agricultural products from the county are easily accessible to a large consumer base. However, productive land is relatively limited due to urban expansion and infrastructure development (Siminea, 2020). Additionally, challenges such as disease outbreaks and market volatility have

impacted production, highlighting the need for adaptive strategies for local farmers (Ciobănică, Cofas, 2024). Small and medium-sized farms dominate the agricultural landscape in Ilfov, but there are also a few large agricultural holdings, particularly in the poultry and pig farming sectors. Large farms benefit from modernization and advanced technologies, while small farms tend to be more traditional, often oriented towards self-consumption. This fragmented structure undermines long-term competitiveness and can lead to inefficient use of financial resources, perpetuating subsistence agriculture (Burghilea et al., 2016). Animal agricultural production includes a variety of products such as meat, milk, eggs, and honey. Despite the pressures of urbanization, agriculture remains a crucial component of Ilfov's economy. The county's fertile lands support the cultivation of cereals, sunflower, and rapeseed. However, the agricultural workforce has decreased by 56.49%, reflecting a shift toward mechanized practices (Mărcuță et al., 2023).

Ilfov County and the Buftea area have undergone significant socio-economic development, including demographic growth and diversification of economic activities (Scarlat, Dobre, 2019). As such, Local Development Strategies must prioritize sustainable development by improving infrastructure and promoting local agricultural products. These strategies aim to balance urban expansion with the preservation of rural heritage and agricultural productivity (Ciobănică, Cofas, 2024). Despite its proximity to Bucharest and significant agricultural potential, the county requires targeted rural development measures to support economic diversification and improve the quality of life in rural communities (Mack, Fîntîneru, Kohler, 2018). It is equally important to ensure active community involvement in decision-making processes (Pocol, Moldovan-Teselios, Cavicchioli, Cordea, 2017). The Ilfov County Development Strategy 2030 outlines a vision to enhance economic competitiveness, including modernizing agricultural farms, improving infrastructure, and promoting sustainable development. Key objectives include encouraging innovation, supporting small and medium-sized enterprises, and integrating environmental sustainability into development projects (Ilfov County Council, the World Bank, 2020; ADRBI, 2023). Ilfov County stands at a crossroads, navigating the tensions between its agricultural heritage and the pressures of urbanization. Strategic planning and the effective implementation of agricultural policies are essential to harmonize these dynamics, ensuring sustainable growth that benefits both urban and rural communities.

MATERIALS AND METHODS

The authors used statistical data from the National Institute of Statistics (INS, 2024), which refer to the number of animals in the categories of cattle, pigs, sheep, goats, poultry, as well as the number of bee colonies existing in Ilfov County, during the period 2017-2022. At the same time, the live weight of animals intended for slaughter, of the aforementioned species, was also analyzed, as well as milk production, egg production and the amount of honey extracted. The specific records of the Buftea City Hall provide a solid basis for the article.

These findings not only document a worrying trend in traditional animal husbandry, but also highlight the need for targeted interventions to stabilize and revitalize the livestock sector.

RESULTS AND DISCUSSION

All four categories of animals (cattle, pigs, sheep and goats) experienced a significant decrease during the analyzed period (Fig. 1).

The sharp declines across most animal categories in Ilfov County highlight the urgent need for targeted interventions to stabilize the livestock sector. Sheep and goat farming may provide opportunities for resilience, while addressing challenges in swine and cattle farming is essential for the long-term sustainability of agriculture in the region.

The number of cattle declined steadily from 6,525 in 2017 to 3,501 in 2022, a reduction of 46.3% over the six-year period. This trend could be attributed to the high costs of maintaining dairy and beef cattle and the shift away from traditional cattle farming, in favor of more profitable or less resource-intensive activities.

The swine population saw the most drastic decline, from 27,237 in 2017 to just 4,916 in 2022, a reduction of 81.9%. Instability and rising feed costs have made swine farming less viable.

Sheep populations fluctuated but remained relatively more stable compared to swine. Starting at 29,091 in 2017, the number peaked at 24,280 in 2020 before declining to 11,992 in 2022.

Sheep farming continues to hold importance as a traditional activity, but declines after 2020 may be tied to urban expansion reducing grazing areas or lower profitability.

Goat populations have declined from 13,438 in 2017 to 5,015 in 2022, although goats can adapt to small-scale farming and milk production continues to have a niche market demand.

Last but not least, another reason for the decline in the number of animals is the diseases they face and the strict conditions imposed to avoid them (Aygün, 2023).

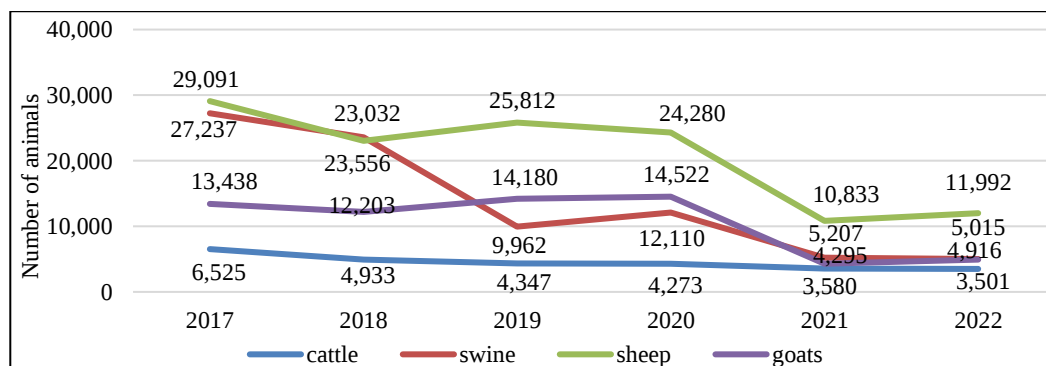


Figure 1. The number of animals existing in Ilfov county, from the most important categories intended for consumption, 2017-2022

*Source: own interpretation after INS, 2024

The poultry sector experienced a significant decline (-65.44%), especially after 2020, Figure 2. While the number of chickens increased slightly between 2017 and 2020, peaking at 471,515 in 2020, the dramatic decrease after that year (down to 136,447 in 2021) can be attributed to factors such as rising production costs, health issues like epidemics (e.g., Avian flu), and accelerated urbanization, which has reduced the land available for large farms. In 2022, there was a slight recovery (140,807 chickens), but the sector remained significantly affected.

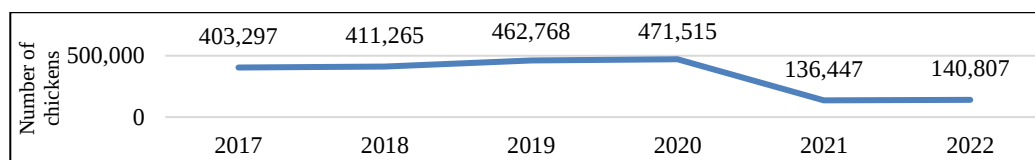


Figure 2. The number of chickens existing in Ilfov county, 2017-2022

*Source: own interpretation after INS, 2024

Unlike the poultry sector, beekeeping has shown greater resilience, Figure 3. The number of bee colonies increased by 6.25% during the analyzed period, reaching from 10,337 colonies in 2017 to 10,983 colonies in 2022. However, the sector reached a peak of 15,553 colonies in 2019, followed by a gradual decline until 2021 (10,483 colonies). This stability can be explained by the adaptability of beekeepers and the constant demand for honey and other bee products on local and regional markets. The relatively favorable natural environment supports beekeeping, but factors such as climate change or pesticides can affect the long-term sustainability of this sector.

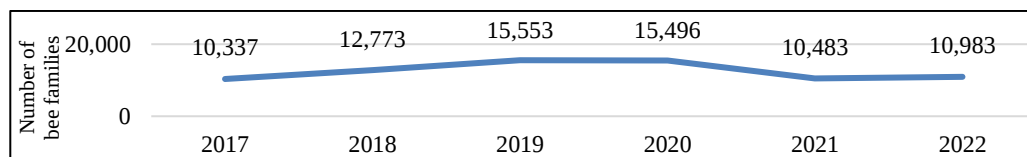


Figure 3. The number of bee families existing in Ilfov county, 2017-2022

*Source: own interpretation after INS, 2024

Milk production (Fig. 4) and egg production (Fig. 5) recorded significant decreases, which can be attributed to the decrease in the number of animals in the county (cattle and birds). Milk production in Ilfov County declined steadily, falling from 41,000 hectoliters in 2017 to 21,000 hectoliters in 2022, representing a significant decrease of -41.21%. The decline is directly linked to the reduction in the number of dairy cattle in the county, as highlighted in previous data regarding livestock. Other contributing factors could include lower productivity per animal, rising production costs, or challenges in maintaining dairy operations in an increasingly urbanized environment. A notable drop occurred after 2020, likely due to external pressures such as economic instability, market volatility, or health-related challenges like disease outbreaks in livestock.

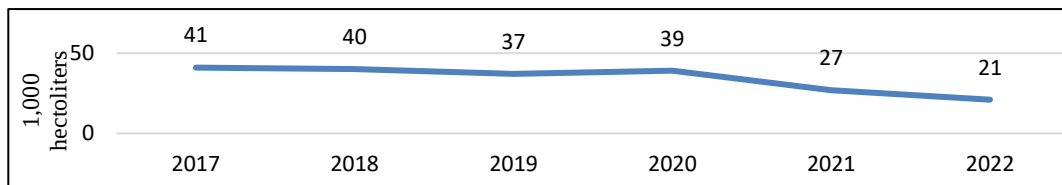


Figure 4. Milk production in Ilfov county, 2017-2022 (1,000 hectoliters)

*Source: own interpretation after INS, 2024

Egg production experienced a more dramatic decline compared to milk, falling from 58 million pieces in 2017 to just 13 million pieces in 2022, a reduction of -77.59%. This sharp decrease aligns with the drastic reduction in the poultry population, reflecting systemic challenges in the sector. The drop after 2020 is particularly pronounced, indicating that disruptions during this period had a profound impact on egg production.

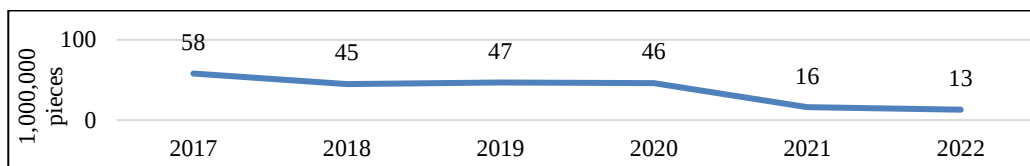


Figure 5. Eggs production in Ilfov county, 2017-2022 (1,000,000 pieces)

*Source: own interpretation after INS, 2024

Honey production (Fig. 6) followed a more stable trend, with a 17.37% increase, from 167 tons in 2017 to a peak of 318 tons in 2020, reflecting a period of growth in the apiculture sector. This growth can be attributed to favorable environmental conditions, increased interest in apiculture, and rising consumer demand for honey and other bee products, both locally and regionally. Following the peak in 2020, production dropped to 216 tons in 2021 and further to 196 tons in 2022. The decline may be linked to: environmental factors, such as climate variability or pesticide use, which negatively impact bee populations and honey yields; economic challenges, including rising production costs or limited access to resources for small-scale beekeepers.

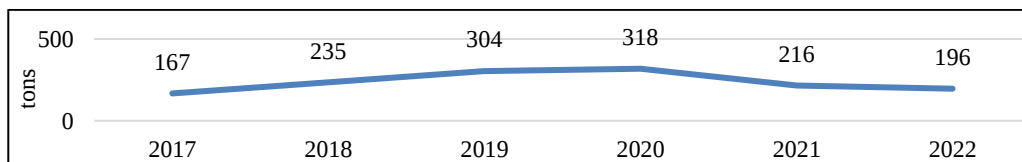


Figure 6. Honey production in Ilfov county, 2017-2022 (tons)

*Source: own interpretation after INS, 2024

Overall, Ilfov County experienced a generalized decline in meat production, with a significant reduction in the live weight of slaughtered animals of over -60% for cattle and pigs and only -14% for poultry, sheep and goats, Figure 7.

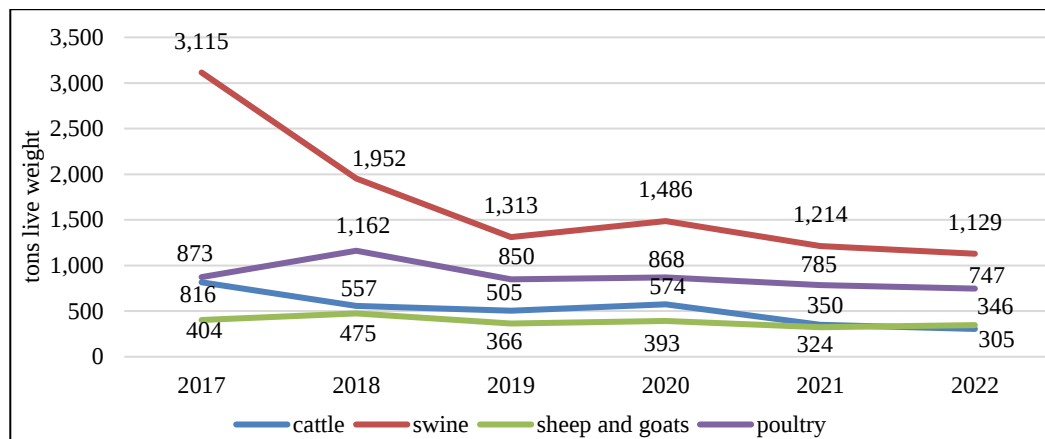


Figure 7. Live weight of animals intended for slaughter for consumption in Ilfov county, 2017-2022 (tons live weight)

*Source: own interpretation after INS, 2024

In the area of Buftea, the livestock and beekeeping sectors represent modest but significant activities for the local economy. Currently, there are two sheep owners with herds of 300 and 350 sheep, respectively, reflecting an orientation toward sheep breeding as a traditional agricultural activity. This sector plays an important role in local production, contributing to milk, cheese, and lamb, which have a secure market in Buftea and even in Bucharest due to the growing demand for authentic agri-food products.

In addition to sheep farming, beekeeping is also well-established in Buftea, with approximately 20 active beekeepers. They contribute to the production of honey, pollen, propolis, and other apicultural products, which enjoy consistent demand both locally and regionally. The activity of beekeepers is supported by the area's natural conditions, including forests and green spaces, which provide a favorable environment for bees (Buftea City Hall, 2023).

CONCLUSION

The livestock sector in Ilfov County suffered a significant decline between 2017 and 2022, with a marked reduction in livestock and the production of meat, milk and eggs. The decline in pigs was the most severe, followed by cattle and poultry, while the beekeeping sector remained relatively stable. These declines can be the result of economic factors, health (diseases), or changes in market demand. The situation suggests the need for recovery measures and support to stabilize and revitalize livestock production in the county.

BuŢtea's proximity to Bucharest offers a unique market advantage, allowing producers to supply fresh meat, dairy and eggs to urban consumers in agri-food markets, retail stores and specialty food stores.

Strategic recommendations for the region may include enhancing veterinary services, promoting sustainable livestock practices, supporting diversification into resilient sectors like beekeeping, and fostering policies to mitigate the economic and environmental pressures impacting animal agriculture. Such measures are essential for ensuring the long-term viability of the livestock industry and maintaining its contribution to the regional economy.

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