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Current Status of Goose Breeding in the World and Türkiye

Arzu Üçtepe[1]*

[1]*Isparta University of Applied Sciences, Faculty of Agriculture, Department of Animal Science, 32260, Isparta, Türkiye.*

Abstract

Goose production represents a relatively small but economically and culturally important branch of the global poultry sector. This review aimed to provide a comprehensive overview of the current status, production characteristics, and international trade structure of goose breeding worldwide and in Türkiye using recent statistical data and relevant literature sources. Although geese are utilized for meat, fatty liver, feathers/down, egg production, and alternative production systems, global goose production remains highly concentrated geographically. According to recent FAO statistics, China overwhelmingly dominates both world goose population and goose meat production. In 2024, Asia accounted for approximately 89.66% of the global goose population, while China alone represented 88.68% of the world goose population and 98.05% of global goose meat production. In contrast, geese represented only 1.29% of the total world poultry population. In Türkiye, goose breeding is predominantly based on indigenous local populations raised under traditional free-range village systems, although semi-intensive production systems have become increasingly widespread in recent years. Kars province consistently maintained the highest goose population in Türkiye during the last decade. However, goose production in Türkiye continues to face several important constraints, including low reproductive performance, hatchability problems, limited breeding stock availability, insufficient integrated slaughtering and processing infrastructure, and regionally concentrated consumption patterns. Despite its relatively limited contribution to total poultry production, goose breeding remains an important alternative poultry sector with substantial potential for sustainable expansion. Future development of the sector will largely depend on advances in genetic improvement, reproductive management, hatchability efficiency, modern production systems, processing infrastructure, and value-added product development.

Keywords: *Goose production, Goose meat, Goose trade, Poultry sector*

Introduction

Domestic geese (family: Anatidae, order: Anseriformes) are among the earliest domesticated poultry species and are generally considered to have originated mainly from two major ancestral lineages: the Greylag goose (*Anser anser*), associated predominantly with European domestic geese, and the Swan goose (*Anser cygnoides*), associated predominantly with Chinese domestic geese (Kozák, 2019; Wen et al., 2023). In addition, based on genetic, phenetic, phylogenetic, and historical analyses, Romanov (1995) proposed six major centers of domestication, breed formation, and dispersal for domestic geese, including the West-European center comprising breeds derived mainly from the western greylag goose (*Anser anser anser*); the Chinese center comprising Chinese and African geese originating largely from the Swan goose (*Anser cygnoides*) with possible influences from *A. anser, A. indicus, A. erythropus, and Cygnus olor*; the Euro-Asiatic center formed through complex hybridization between European and Chinese domestic geese and western and eastern Greylag geese; the Egyptian center represented by the ornamental domesticated Egyptian goose (*Alopochen aegypticus*); the North-American center involving the semi-domesticated Eastern Canada goose (Branta canadensis canadensis); and the Australian center associated with the local domestication of the Cape Barren goose (*Cereopsis novaehollandiae*) (Romanov, 1995). Differences in domestication history may also be associated with morphological and production differences between European and Chinese domestic geese. Chinese domestic geese are generally smaller and lighter, with relatively higher egg production, stronger legs and wings, and a characteristic knob at the base of the beak, whereas European domestic geese are typically larger and heavier with comparatively lower egg production (Wen et al., 2023). In general, compared with their wild ancestors, domesticated geese exhibit substantial increases in body weight and egg production, along with changes in reproductive behavior, including a shift from predominantly monogamous to more polygamous mating systems, and reduced migratory characteristics. Accordingly, considerable variation in body weight exists among domestic goose breeds, ranging from 2.3 kg in Philippine geese and 2.8 kg in ganders to 9.1-10.9 kg in Toulouse geese and 11.8-13.6 kg in ganders (Kozák, 2019). Considerable variation also exists in egg production traits among domestic goose breeds, ranging from 30 eggs per female annually in Pilgrim geese to more than 200 eggs per laying period in Huoyan geese (Buckland & Guy, 2002). In addition, fatty liver production represents one of the highest-value products derived from geese, with force-feeding practices applied for approximately 14-21 days increasing liver weight from around 80 g under normal physiological conditions to approximately 600-1000 g (Boz & Sarıca, 2018). Furthermore, feathers and down obtained from domestic goose populations constitute economically valuable by-products, with feather yield

generally ranging from 200-260 g in geese weighing 3.5-4.5 kg to 290-327 g in geese weighing 5-7 kg, while total plumage weight may reach 250-300 g per bird (Kozák, 2011).

Despite their long domestication history, their commercial importance has generally remained lower than that of chickens, turkeys, and ducks because goose production is still largely based on traditional and small-scale production systems in many countries (Kozák et al., 2010). Nevertheless, geese continue to represent an economically and culturally important poultry species in several regions of the world, particularly for meat, fatty liver, feather, and down production (Kozák, 2021). This study aims to provide a comprehensive overview of the current status, production characteristics, and global production and trade patterns of goose breeding in Türkiye and worldwide using the most recent available data.

Goose Breeding in the World

Geese are currently raised worldwide as multipurpose poultry species because of their adaptability and economic value, particularly in East and Southeast Asia and in some Eastern European countries, where goose meat has considerable economic and cultural importance (Saatci et al., 2021). In addition to meat production, geese are utilized for egg production, fatty liver (foie gras; typically >400 g in French standards; Fernandez et al., 2019), cooking fat, and feather products (feathers and down) (Kozák, 2021). Furthermore, they are also used as alarm animals for security purposes, in biological weed control systems, and for hobby or ornamental breeding (Cilavdaroğlu et al., 2020). Accordingly, domestic goose breeds can be broadly classified according to their predominant production purposes, including meat, egg, fatty liver, feather/down, and dual-purpose production types. Heavy breeds such as Emden, Toulouse, White Italian, Rhenish, Alsatian, Danish, Czech, and White Kołuda geese are mainly associated with meat production, whereas Landes and some Hungarian goose lines are widely used for fatty liver and feather production, respectively. Chinese geese are recognized for their reproductive and egg production performance, while breeds such as Rhenish, Slovak, Cuban, Roman, and Synthetic Ukrainian geese are valued for traits including rapid growth, lean meat production, adaptability, and suitability for commercial crossbreeding (Lewko et al., 2023; Nowicka and Przybylski, 2018). In China, commercially important native breeds include Huoyan, Sichuan White, Yili (China's only native *Anser anser* derived goose breed; Dong et al., 2023), and Wanxi White geese, and hybrid goose lines have also been developed to improve meat quality and production performance (Jun et al., 2023; Yan et al., 2023). Moreover, several improved goose breeds, hybrids, and commercial lines have been developed through breeding programs in different European countries, including White Kołuda geese and the W11, W31, and W33 lines in Poland, Babat Grey and Babat White geese in Hungary, Roman (Romanola/Italian) geese in Italy, Czech (Bohemian) and Novohradská geese in the Czech Republic, Pomeranian geese in Poland and Germany, Eskildsen geese in Germany, and Stow geese in the United Kingdom, and French White (INRA) goose lines in France, as well as the G35 white goose line developed for meat production and the G36 grey goose line developed for foie gras production in France (Cilavdaroğlu et al., 2020; Kırmızıbayrak, 2018). Nevertheless, goose production is still strongly influenced by environmental conditions and seasonal reproductive patterns and is constrained by several biological and reproductive limitations, including pronounced seasonality, broodiness behavior, relatively low egg production, low fertility, poor semen quality, and mate-selection behavior (Yan et al., 2025). Depending on the breed, geese generally produce 15-60 eggs per laying season, with egg weights ranging from 130 to 210 g and fertility rates varying between 53% and 98% (Önk & Kırmızıbayrak, 2019). Accordingly, various nutritional, managerial, and reproductive biotechnological approaches have been proposed to improve reproductive performance in geese (Akhtar et al., 2021; Shi et al., 2008).

Goose production systems vary considerably among countries depending on climatic conditions, production purposes, and management traditions. In China, traditional integrated fish-goose production systems (semi-intensive) remain the predominant production model, although the use of modern intensive closed-house systems has increased in recent years. In France, Eastern European countries (particularly Poland, Hungary, Romania, and Czechia), and South America, intensive and semi-intensive systems are widely practiced, whereas extensive pasture-based production remains common in certain regions of Europe and Africa. In Türkiye, traditional free-range village production systems are still maintained; however, intensive and semi-intensive goose production systems have become increasingly widespread in recent years (Sarı et al., 2021).

Figure 1 shows that chickens overwhelmingly dominated the global poultry population in 2024, accounting for 93.50% of the total population. In contrast, ducks, geese, and turkeys represented substantially smaller proportions at 4.31%, 1.29%, and 0.82%, respectively, while other poultry species accounted for only 0.08%.

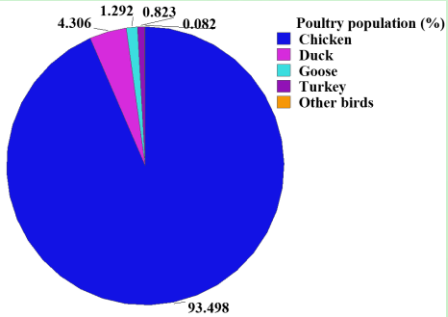

Figure 1. Proportional distribution of the world poultry population by species in 2024 (FAO, 2026)

Figure 2a shows that the global goose population increased from 375.03 million head in 2020 to 382.51 million head in 2024, despite a slight decline in 2022. This trend indicates the continued expansion of global goose production in recent years. Figure 2b demonstrates that, despite this numerical increase, the relative contribution of geese to the global poultry population declined slightly from 1.35% in 2020 to 1.29% in 2024. However, ducks maintained a relatively stable share at 4.3%, whereas the proportion of turkeys decreased from 0.96% to 0.82% during the same period.

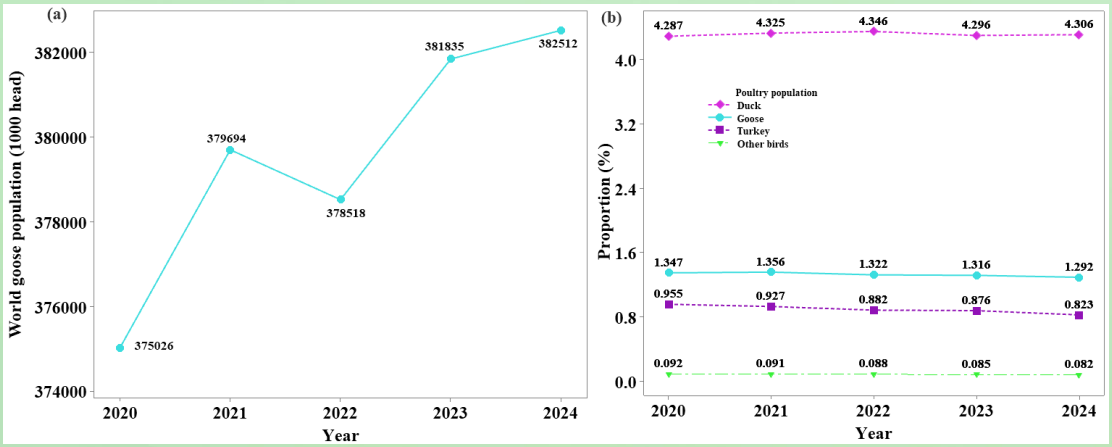

Figure 2. World goose population and its proportion within the poultry population between 2020 and 2024 (FAO, 2026)

The global goose population was estimated at approximately 359.12 million head worldwide (FAO, 2026). Asia dominated the world goose population in 2024, accounting for approximately 89.66% of the global total (342.95 million head). Africa and Europe contributed 6.07% (23.23 million head) and 3.79% (14.51 million head), respectively, whereas the Americas and Oceania represented only 0.45% and 0.02% of the world goose population (Figure 3).

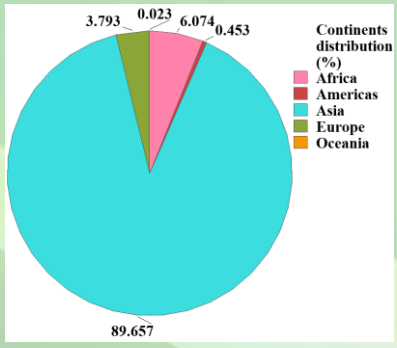

Figure 3. Proportional distribution of the world goose population by continent in 2024 (FAO, 2026)

As presented in Table 1, the global goose population in 2024 was overwhelmingly dominated by China, which accounted for 88.68% of the world total. Mozambique and Myanmar ranked second and third, respectively, whereas Türkiye represented 0.35% of the global goose population.

Table 1. Leading countries in world goose population and their proportional shares in 2024 (FAO, 2026)

Country	*Goose population (1000 head)*	*Proportion (%)*
China	333082	88.680
Mozambique	16473	4.386
Myanmar	5857	1.559
Russian Fed.	3577	0.953
Egypt	3524	0.938
Madagascar	3009	0.801
Ukraine	2964	0.789
Türkiye	1303	0.347
Venezuela	1000	0.266
Iran	984	0.262
Other countries	3828	1.019
World total	359128	100.000

Under organic dehesa production conditions in Spain, female live weight in goose populations ranged from 4.81 to 5.20 kg, whereas male live weight ranged from 5.13 to 6.11 kg at 30-32 weeks of age in Embden, Toulouse, and Embden × Toulouse F1 cross populations (Solé et al., 2015). In Lindovskaya goose populations reared under semi-intensive grazing conditions, female and male live weights reached 3.02 and 3.61 kg, respectively, at 16 weeks of age (Akbaş et al., 2020). In another study conducted under semi-intensive production conditions, with geese subjected to oat fattening during the final three weeks before slaughter, female and male live weights in White Kołuda (W31) goose populations reached 6.17 and 6.74 kg, respectively, at 16 weeks of age (Kucharska-Gaca et al., 2022). Similarly, in a Canadian study conducted exclusively on male goose strains and Embden-sired crosses reared under semi-intensive pasture-based production conditions, 16-week body weight ranged from 4.90 kg in the selected synthetic strain to 6.43 kg in the large Embden × selected Chinese cross, while dressing percentage (eviscerated carcass basis) varied between 60.1% and 62.5% (Shrestha & Grunder, 2005). In another study conducted on indigenous goose populations reared in the Afyon region of Türkiye, hot carcass yield values were 64.1% and 62.0% in males and females, respectively, whereas corresponding cold carcass yields decreased to 62.6% and 61.5% (Peşmen and Yönetken, 2020). However, lower carcass yield values were reported in other goose populations, including 59.0% in white Chinese and 56.8% in grey Chinese geese (Chaiwang et al., 2025), as well as hot carcass yield values of 59.2%, 58.1%, and 57.6% in Linda, Toulouse, and Mast goose populations, respectively (Aslan et al., 2024); both studies included equal numbers of male and female geese. Likewise, relatively high cold carcass yield values were also reported under semi-intensive production systems, with carcass yields of 82.1% and 77.4% in male and female Anatolian goose populations, respectively, whereas the corresponding values in Mast goose populations were 81.0% and 78.1% (calculated from Ürer et al., 2026).

Goose meat is considered a nutritionally valuable poultry product because of its high protein content (approximately 22%) and favorable fatty acid composition, particularly its richness in monounsaturated and polyunsaturated fatty acids. In addition, goose meat provides important minerals such as iron, zinc, phosphorus, iodine, and selenium, while goose fat contains relatively lower levels of saturated fatty acids compared with many other animal fats, thereby contributing to its nutritional and dietary value (Krunt & Zita, 2026). Although goose meat possesses high nutritional and economic value, its consumption remains relatively limited globally and is largely concentrated in particular regions and periods as part of traditional local consumption patterns (Gündüz et al., 2019). Nevertheless, compared with other poultry species, both goose production and goose meat consumption have remained relatively limited worldwide (Figure 1 and 4c). Average global goose meat consumption is estimated at 0.343 kg per capita per year. China represents the leading country in goose meat consumption, with an annual per capita consumption of approximately 1.73 kg, while France ranks among the major consumers, largely due to the traditional production and consumption of foie gras (Vorona & Makarynska, 2022).

Marked species-specific differences were evident in the global concentration patterns of poultry meat production in 2024 (Figure 4). Chicken meat production exhibited the most geographically dispersed production structure among the evaluated poultry species, with the United States (20.18 million t; 15.73%), China (16.07 million t; 12.52%), and Brazil (13.71 million t; 10.69%) accounting for the largest shares of total world production. Overall, the leading chicken meat-producing countries contributed 59.39% of global production, indicating a relatively diversified international production system (Figure 4a) (FAO, 2026).

In contrast, duck meat production demonstrated a markedly concentrated pattern dominated by China, which produced approximately 6.04 million t and accounted for 82.33% of world production, whereas the remaining leading producer countries individually contributed comparatively minor shares (Figure 4b). Goose meat production exhibited the highest degree of geographic concentration, with China alone producing 5.30 million t and accounting for 98.05% of total global production, reflecting an exceptionally centralized production structure (Figure 4c). Although the Russian Federation was represented among the countries with notable goose stock

populations in the FAO database (FAO, 2026), corresponding data on slaughtered animals, carcass yield, and goose meat production for 2024 were not available.

Global turkey meat production displayed an intermediate concentration pattern, led by the United States with approximately 2.32 million t corresponding to 45.55% of world production, followed by Germany (404 thousand t; 7.95%) and Poland (349 thousand t; 6.87%) (Figure 4d) (FAO, 2026). Collectively, these findings highlight substantial interspecific variation in the geographic distribution and concentration dynamics of global poultry meat production.

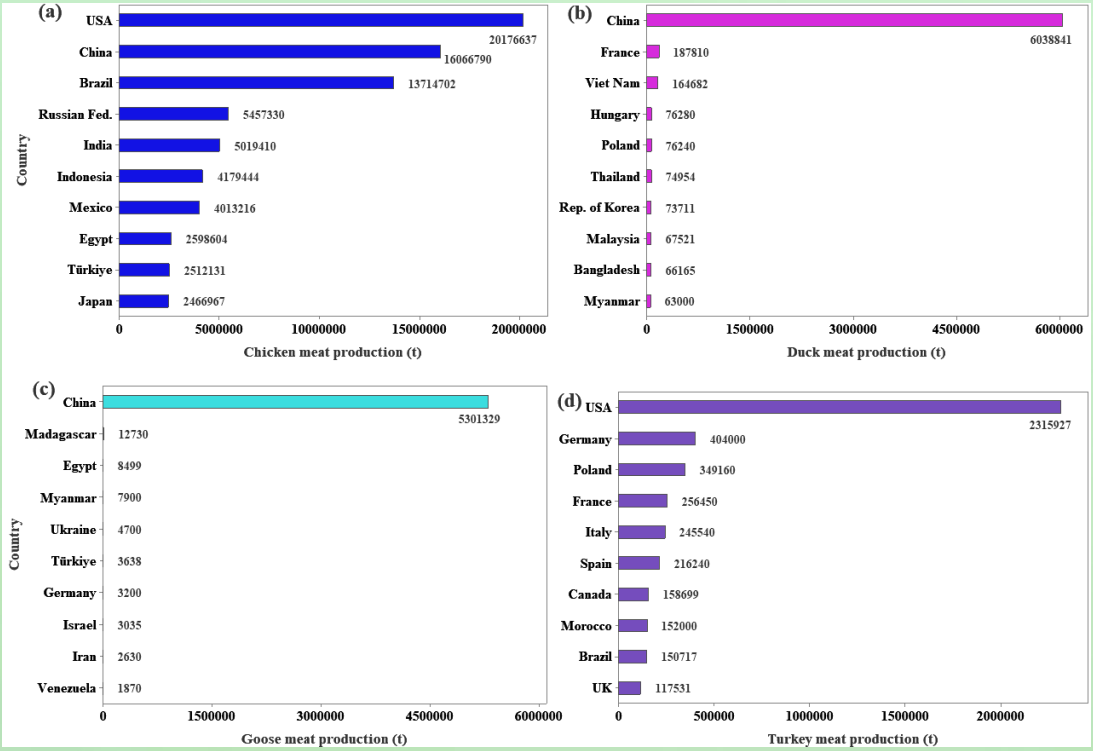

Figure 4. Leading poultry meat producing countries by species in 2024 (different X-axis scales) (FAO, 2026)

Germany, based on FAO official records, consistently exhibited the highest goose carcass weights between 2020 and 2024, ranging from 7.08 to 7.55 kg. Although based on FAO estimated values, China ranked second and showed a marked increase in carcass weight from 5.85 kg in 2020 to 6.89 kg in 2024, representing an increase of approximately 1.00 kg within five years and approaching the levels reported for Germany. However, Canada and the United Kingdom maintained relatively stable carcass weights at approximately 5.00 and 4.70 kg, respectively, whereas New Zealand, Norway, and France displayed comparatively lower values around 4.00-4.30 kg (Figure 5). According to FAO estimated values, Türkiye maintained a constant goose carcass weight of approximately 2.50 kg during the same period (FAO, 2026). Overall, substantial variation in goose carcass weight was observed among countries, with nearly a twofold difference even among the leading countries.

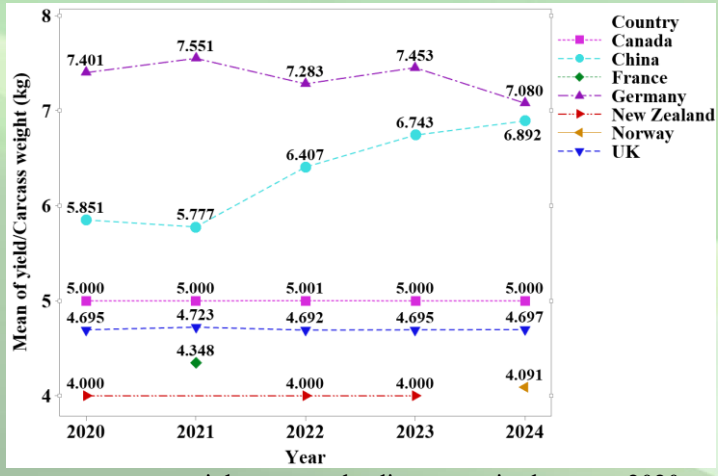

Figure 5. Changes in goose carcass weights among leading countries between 2020 and 2024 (FAO, 2026)

According to FAO official statistics for 2024, Albania and Hungary were the leading importing countries for live geese, importing 992 thousand and 907 thousand head, respectively, whereas Poland and Hungary were the leading exporting countries, exporting 488 thousand and 191 thousand head, respectively (FAO, 2026).

As presented in Table 2, the international trade of goose meat in 2024 was largely dominated by a limited number of countries. China and Germany accounted for 39.90% and 38.22% of global imports, respectively, whereas China (39.34%), Poland (37.35%), and Hungary (20.29%) emerged as the principal exporting countries in the global goose meat market.

Table 2. Leading countries importing and exporting goose meat in 2024 (FAO, 2026)

Importing countries	*Import quantity (t)*	*Proportion (%)*	*Exporting countries*	*Export quantity (t)*	*Proportion (%)*
China	15679.47	39.90	China	15433.45	39.34
Germany	15019.93	38.22	Poland	14650.10	37.35
France	2227.10	5.67	Hungary	7960.71	20.29
Czechia	1971.62	5.02	Germany	405.37	1.03
Austria	1110.10	2.82	Austria	200.13	0.51
Other countries	3290.79	8.37	Other countries	579.17	1.48
World total	39299.01	100.00	World total	39228.93	100.00

The global trade of edible goose offal in 2024 exhibited a marked regional concentration. Israel accounted for the largest share of global imports with 38.31%, followed by Germany (14.40%) and China (9.68%), whereas Hungary and Poland dominated global exports, representing 43.63% and 41.89% of total exports, respectively (Table 3).

Table 3. Leading countries importing and exporting edible goose offal (including liver) in 2024 (FAO, 2026)

Importing countries	*Import quantity (t)*	*Proportion (%)*	*Exporting countries*	*Export quantity (t)*	*Proportion (%)*
Israel	980.11	38.31	Hungary	367.90	43.63
Germany	368.42	14.40	Poland	353.19	41.89
China	247.63	9.68	Belgium	44.65	5.30
Czechia	192.56	7.53	Germany	35.35	4.19
Belgium	168.05	6.56	France	12.53	1.49
Other countries	601.91	23.52	Other countries	29.51	3.50
World total	2558.68	100.00	World total	843.13	100.00

The global market value of goose down is reported to range between 100-130 USD per kilogram. Furthermore, in European Union countries, the purchase price of goose fat is higher than that of butter (Vorona & Makarynska, 2022). Foie gras, regarded as one of the most valuable products derived from goose production, has an estimated market value of approximately 30-40 USD per kilogram. France accounts for nearly 80% of global foie gras production and consumption, while China, France, and Bulgaria are among the leading exporting countries. Moreover, notable production activities in Canada, Germany, and Poland, together with high consumer demand in countries such as Spain, Switzerland, and Belgium, indicate the widespread commercial importance of foie gras in international markets (Czibolya, 2015; Guemene & Guy, 2004; Karadağ, 2025). The international goose product market is further shaped by strong consumer demand for high-value specialty products, particularly in affluent European countries where foie gras and goose fat constitute important niche commodities (Dumlu, 2024).

Goose Breeding in Türkiye

Goose production is practiced across all regions of Türkiye, and indigenous Turkish geese constitute the majority of the national goose population, with goose breeding being primarily oriented toward meat production (Önk & Kırmızıbayrak, 2019; Kırmızıbayrak, 2020). Indigenous Turkish geese are generally classified according to plumage coloration, including white, black, pied (black–white), brown-yellow, and grey (ash-colored) varieties, which may be raised either separately or in mixed flocks (Akın and Çelen, 2020; Arslan, 2018; Boz and Sarıca, 2018; Cilavdaroğlu et al., 2020). These indigenous genotypes are generally characterized by relatively low growth and reproductive performance, with egg production typically remaining around 15-20 eggs per season. Nevertheless, considerable phenotypic variation exists among regional populations, and geese raised in Kars and Ardahan provinces, particularly in Ardahan-Sugöze, Kars Central, and Akyaka, are recognized for their comparatively larger body size and more developed body conformation (Kırmızıbayrak, 2018). In indigenous Turkish goose populations, female live weight ranged from 3.87 to 4.69 kg, whereas male live weight ranged from 4.54 to 5.73 kg between 16 and 18 weeks of age across intensive and free-range production systems (Boz et al., 2017).

In Türkiye, several exotic goose genotypes have been introduced over time, including 12,000 Romanola goose eggs imported from Italy in 1988 and 2,040 INRA goslings introduced through an FAO project in 1993. In recent years, producers have also introduced breeds such as Embden, Toulouse, African, and Chinese geese to meet

increasing demand, and crosses involving these genotypes and indigenous Turkish geese are still present in local populations (Boz & Sarıca, 2018).

Table 4. Goose population and estimated production data in Türkiye between 2016 and 2025 (FAO, 2026; TÜİK, 2026)

Year	*Live goose population (head)*[a]	*Slaughtered geese (head)*[b]	*Goose meat production (kg)*[b]	*Goose carcass weight (kg)*[b]
2016	933353	1020000	2548870	2.5
2017	978384	1072000	2679480	2.5
2018	1080190	1184000	2960470	2.5
2019	1157049	1273000	3181450	2.5
2020	1373960	1517000	3791670	2.5
2021	1477569	1636000	4089430	2.5
2022	1385507	1538000	3845730	2.5
2023	1328175	1479000	3697230	2.5
2024	1303026	1455000	3637660	2.5
2025	1263907	-	-	-

a: TÜİK official statistics, b: FAO estimated or imputed values obtained from FAOSTAT database.

Table 4 summarizes goose population data together with FAO estimated production data and derived ratios for Türkiye between 2016 and 2025. Goose carcass weight remained relatively stable at 2.50 kg. The live goose population in Türkiye increased markedly between 2016 and 2021, rising from 933,353 to 1,477,569 head (Table 1 and Figure 6a). After peaking in 2021, the population gradually declined to 1,263,907 head by 2025. Despite these fluctuations, geese consistently represented a relatively small proportion of the total poultry population in Türkiye, ranging from 0.28% to 0.38% (Figure 6b). Chickens overwhelmingly dominated the poultry population between 2016 and 2025 (>98%), whereas geese accounted for less than 0.40% of the total poultry population.

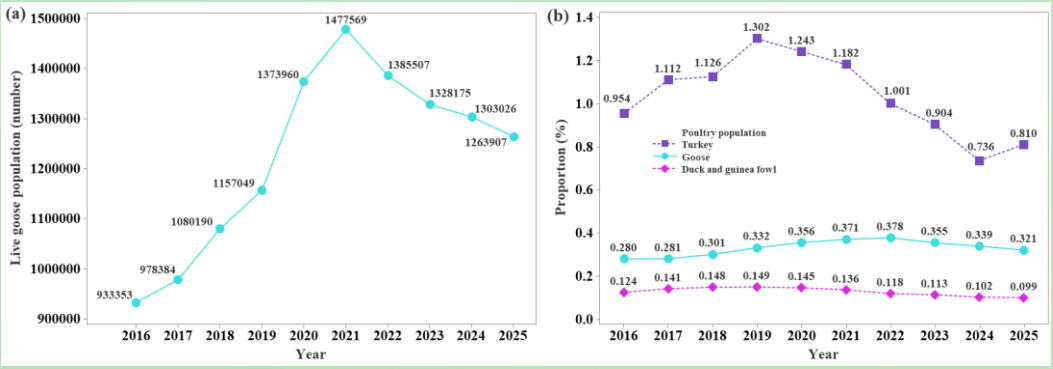

Figure 6. Live goose population and its proportion within poultry in Türkiye (TÜİK, 2026)

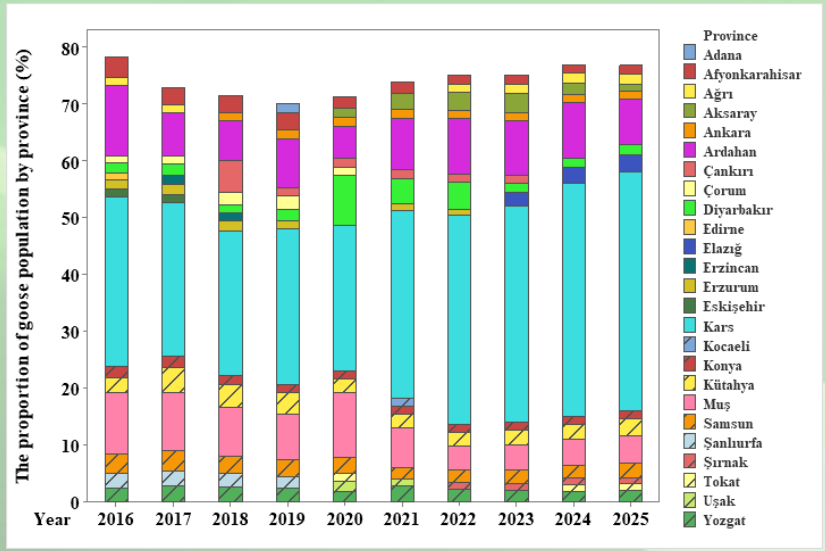

Figure 7. Leading 15 provinces by live goose population ratio over the past decade (alphabetically listed) (TÜİK, 2026).

During the last decade, Kars consistently maintained the highest live goose population in Türkiye, accounting for 29.91% (279,200 head) of the national goose population in 2016 and increasing to 42.14% (532,560 head) in 2025. Ardahan and Muş generally ranked second and third, respectively. Ardahan accounted for 12.25% (114,311 head) of the live goose population in 2016 and 8.13% (102,798 head) in 2025, whereas Muş accounted for 10.82% (100,965 head) and 4.85% (61,256 head) in the respective years. However, Diyarbakır ranked third in 2020 with 121,354 head (8.83%) and in 2022 with 64,919 head (4.69%), surpassing Ardahan and Muş in the respective years (TÜİK, 2026).

Afyonkarahisar, Samsun, Kütahya, Yozgat, Konya and Diyarbakır were consistently included among the leading 15 provinces with the highest live goose population throughout the evaluated years (Figure 7). Elazığ, which was not represented among the leading provinces in the earlier years, ranked sixth in 2023 (32,887 head; 2.48%) and fourth in both 2024 (37,874 head; 2.91%) and 2025 (37,825 head; 2.99%) (TÜİK, 2026).

Aksaray was represented among the leading provinces after 2020, ranking sixth in 2021 (41,870 head; 2.83%) and fifth in 2022 (44,150 head; 3.19%); however, its relative ranking declined to twelfth place in 2025. In contrast, Çankırı ranked fourth in 2018 (58,982 head; 5.46%) but did not maintain this position in the subsequent years and was not included among the top 15 provinces in 2024 and 2025. Edirne and Adana were represented among the leading 15 provinces only in 2016 and 2019, respectively (Figure 7).

Diyarbakır exhibited a marked increase in live goose population between 2020 and 2022, ranking third in both 2020 (121,354 head; 8.83%) and 2022 (64,919 head; 4.69%), and fourth in 2021 (65,342 head; 4.42%). However, its relative contribution declined in the subsequent years, falling to eleventh place in 2023 and ninth place in 2024 and 2025 (TÜİK, 2026).

These provinces are considered highly suitable for goose production due to their favorable climatic and rural production conditions, where traditional extensive production systems based on pasture grazing and limited concentrate feed use are still predominantly practiced. Nevertheless, increasing feed costs and the gradual decline of available agricultural and grazing lands continue to threaten the sustainability of goose production systems in Türkiye (Akın, 2023).

Despite the growing interest in goose products, demand remains limited and regionally concentrated in Türkiye. In addition, goose production is constrained by several factors, including low egg production, difficulties in obtaining fertile eggs, hatchability-related problems, the limited availability of breeding eggs and breeding stock, and the limited number of scientific studies conducted on geese (Akın, 2023; Saatci et al., 2021). Akın & Çelen (2020) further reported that governmental credit and support programs for goose production were largely concentrated in Kars and surrounding regions, while the absence of integrated production and slaughtering facilities similar to those in the broiler sector, together with the seasonally concentrated consumption pattern of goose meat, limited the sustainable development and commercialization of goose production in Türkiye.

Conclusion

Global goose production remains a highly specialized branch of the poultry sector characterized by substantial diversity in breed structure, production purposes, and management systems. Although geese represent only a limited proportion of the total world poultry population, goose breeding continues to maintain economic and cultural importance in several regions, particularly in East and Southeast Asia and certain Eastern European countries. Current FAO statistics clearly demonstrate the exceptionally concentrated structure of the global goose sector, with China overwhelmingly dominating both goose population and goose meat production worldwide.

The literature reviewed in the present study indicates considerable variation among goose breeds and production systems with respect to live weight, carcass yield, and production characteristics. Furthermore, production performance differs substantially according to genotype, sex, and management conditions. Goose production systems worldwide range from traditional extensive pasture-based systems to modern semi-intensive and intensive commercial production models.

In Türkiye, goose breeding remains predominantly based on indigenous local populations raised under traditional village-type free-range systems, although semi-intensive systems have become increasingly widespread in recent years. Kars province continues to represent the principal goose production center of the country. However, the Turkish goose sector still faces several important limitations, including low reproductive performance, hatchability problems, insufficient breeding stock availability, limited integrated slaughtering and processing infrastructure, and seasonally concentrated consumption patterns.

The available literature and current production statistics indicate that goose breeding still possesses substantial development potential both globally and in Türkiye. Improvements in genetic resources, hatchability performance, modern production systems, and processing infrastructure may contribute considerably to the sustainable expansion and commercialization of goose production in the future.

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