

Kashmir Anz: India's First Indigenous Goose Breed

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Introduction:

Native to the Kashmir Valley, the "Kashmir Anz" is the first domestic goose breed in India. Since ancient times, these geese have played a significant role in the region's cultural legacy. With the accession number INDIA_GEESE_0700_KASHMIRANZ_18001, the National Bureau of Animal Genetic Resources (NBAGR) officially recognised the Kashmir Anz as the first and only domestic goose breed in India (Verma et al., 2017). Although they are more prevalent in the districts of Srinagar, Bandipora, Ganderbal, Budgam and Baramulla, these geese are primarily found in and around water bodies (lakes and wetlands) across the Valley. The name Kashmir Anz is derived from two words: Anz, which means geese in the local language and Kashmir, which represents the breed's breeding region. The Kashmir Valley has a long history of raising geese for meat, eggs and as a beloved pastime, especially around freshwater bodies like Dal, Wular and Anchar lakes (Hamadani et al., 2020). In light of the increasing demand for protein and in line with the UN Sustainable Development Goal of "Zero Hunger," it is imperative to acknowledge alternate poultry supplies such as the Kashmir Anz. Increasing rural income requires utilising this resilient indigenous resource, which produces high-quality meat and eggs with little input and is well suited to the cold Kashmiri climate (Krishi Jagran, 2025). Hardy, disease-resistant and skilled foragers, Kashmir Anz geese require little care for raising. They flourish in regions near freshwater and are proficient swimmers.

Current status of Poultry:

India's poultry industry grew significantly in 2019; the country's total poultry population reached 851.81 million, up 16.8% from the previous Census. The Backyard Poultry section was the main driver of this rise, rising to 317.07 million, a staggering 45.8% increase. The population of commercial poultry, on the other hand, increased more slowly to 534.74 million, or 4.5%. At the same time, India's egg output reached an expected 142.77 billion eggs in 2023–2024, a 3.18% rise over the year before and securing India's place as the world's second-largest egg producer. The three states that contributed the most to this production were Telangana, TamilNadu and Andhra Pradesh. Despite their long history, an earlier estimate of the Kashmir Anz's population was over 13,000 birds (Verma et al., 2017). Recent research has shown a worryingly quick decline in their numbers, indicating that they may be approaching critical levels in some areas (Hamadani et al., 2020; ANI, 2022).



External morphological characteristics:

These characteristics are essential for identifying and characterising poultry breeds. Certain populations have morphological abnormalities such as the existence of a knob, dewlap and paunch (lobes) (Hamadani and Khan, 2016; NBAGR, 2017). Three different colour kinds can be seen in the plumage of Kashmir Anz geese: white, cinnamon and a combination of the two. Some people have notable features including the knob, dewlap and paunch. "Katchur Anz" and "Safed Anz" are two different within-breed strains that have been identified. Since there is no sexual dimorphism based on eye or plumage colour, the most accurate ways for determining gender are vocalisation or vent sexing.

A gander weighs 3.82 kg on average as an adult, while a goose weighs 3.34 kg. At hatching, goslings weigh about 89.2 g. The mean clutch size is 9.45 eggs, the hatchability rate is 83.37% and the average age at sexual maturity is 13.7 months (Hamadani et al., 2016). The duration of incubation is between thirty and thirty-two days. This breed's goslings also display two colour variations: yellow-feathered and blackish-yellow-feathered. Blackish-yellow goslings evolve into "Katchur Anz," whereas yellow goslings usually become "Safed Anz." While the Safed Anz strain is more prevalent in Ganderbal, the Katchur Anz strain is primarily

raised in the districts of Bandipora and Baramulla. In the Srinagar and Budgam districts, mixed flocks with both breeds are frequently seen (Hamadani et al., 2020).

Production Performance:

An average of 12 white-shelled eggs weighing 137 g are laid by each goose annually. The percentage of people who dress is about 67.7%. In terms of look, texture, flavour and general acceptability, a considerable percentage of consumers consider the meat to be better than both mutton and chicken meat. While the ready-to-cook weight is 941.75 g, the dressing percentage is between 64.98 and 76.21%. The weight ranges for the breast, drumsticks, thighs, back, neck and wings are as follows: 249.62 to 344.65 g, 81.48 to 97.90 g, 83.22 to 117.85 g, 191.62 to 243.85 g, 105.07 to 131.20 g and 121.80 to 138.15 g. (Hamadani et al., 2020)

Disease incidence

Due to their shared water habitat with native duck species (Hamadani et al., 2013), Kashmir geese (*Anser anser domesticus*) have also been documented to have parasitic infestations, especially those caused by *Capillaria* spp. (Hamadani et al., 2017). In addition to parasite illnesses, bacterial pathogens including *Clostridium perfringens* (Dar et al., 2017) and *Escherichia coli* and *Pseudomonas aeruginosa* (Qureshi et al., 2010) have been shown to cause disease in Kashmir Anz geese populations.

Reproductive Maturity and Lifespan of Kashmir Anz Geese

The Kashmir Valley's native domestic goose, the Kashmir Anz, is renowned for its resilience and ability to adapt to cold wetland conditions. Although productive reproductive life usually lasts up to 8 years, Kashmir Anz geese commonly live between 10 and 15 years under traditional raising settings. Compared to commercial or exotic goose breeds, the reported age of sexual maturity is 13.7 months, which is comparatively later. Both male ganders and female geese reach their maximum physical size and reproductive potential at this point. The average breeding season lasts from February to May, depending on the valley's temperature and daylight availability. Egg-laying typically starts at 13 to 14 months of age. Under normal incubation settings, hatchability ranges from 83 to 85%, with an average clutch size of 9 to 10 eggs each laying cycle. Kashmir Anz geese can lay eggs effectively for five to six years in a row with the right diet, housing and care; after that, output gradually drops (Hamadani et al., 2020).

Prospects for the Future

In addition to its enormous expansion, the Indian poultry industry has been dominated by chickens, which ignores the potential of other diverse poultry species. Thus, policies to enhance the other poultry. The Kashmir Anz geese is an important native genetic resource that

is specifically suited to the rainy and frigid climate of the Kashmir Valley. Despite its versatility, aesthetic beauty and socioeconomic significance, the breed is still little documented and is steadily diminishing as a result of unchecked crossbreeding, shrinking wetland habitats and a lack of understanding about conservation. Therefore, systematic characterisation, genetic assessment and the creation of breed-specific conservation flocks in both in-situ and ex-situ settings should be the main goals of future initiatives. The preservation of this germplasm may be greatly aided by encouraging community-based conservation initiatives and rewarding nearby farmers for keeping clean flocks. Developing region-specific management regimens also requires research on disease resistance, reproductive performance and nutritional needs. Furthermore, marketing Kashmir Anz geese in organic niche markets and ecotourism can increase their economic worth and guarantee long-term viability. The protection and sustainable use of these rare native geese population will depend on the integration of modern breeding techniques with traditional rearing methods.

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