






## An overview of carcass and meat quality traits of indigenous chickens from South and East Asia

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### SUMMARY

Indigenous chickens reared in South and East Asian region have been assessed for their carcass and meat quality traits over the past years. This review provides the overview of findings on the carcass and meat quality traits of indigenous chickens. Ancestry analysis revealed that these chickens have evolved from the Red jungle fowl (*Gallus gallus*). These indigenous breeds/ecotypes are named based on their unique phenotypic characteristics. In most Asian countries, indigenous chicken populations are sustained due to the cross-breeding programmes between different lines of local and exotic breeds. The production systems for these chicken breeds/ecotypes are mainly semi-intensive of the backyard and free-range systems. The carcass and meat quality parameters of these chickens are primarily influenced by genotype, age, body weight, feed, and several other environmental conditions. At present, consumer preference for indigenous chicken meat has increased due to its superior quality compared to broiler meat, particularly in terms of unique taste, texture, and nutritional value. Indigenous chicken meat exhibits favourable fatty acid profiles including *n*-3 and *n*-6 fatty acids, and desirable physiochemical and sensory attributes compared to commercial broiler meat. However, further research is needed to explore the carcass and meat quality parameters, and histological traits of the meat from different indigenous chicken breeds/ecotypes in the South and East Asian regions.

### KEYWORDS

Breed; bioactive compounds; histological traits; native chicken; carcass quality; meat quality; indigenous chicken; physiochemical attributes