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Production performance of Namakkal gold quail in Kanyakumari district

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Abstract
This study was conducted to evaluate the production performance of Namakkal Gold quail in Kanyakumari district of Tamil Nadu. As a part of Front line demonstration 2019-2020, 700 day old Nammakal Gold quail chicks were purchased from TANUVAS -Veterinary college and Research Institute, Tirunelveli and distributed to the beneficiaries of Kanyakumari district. Bodyweight and feed consumption recorded in farmers field at weekly interval upto five weeks of time and mortality was recorded at the occurrence. The traits calculated were body weight gain, feed consumption per bird per day, feed conversion ratio and livability upto five weeks of age. Average day old quail chicks weight were 7.26 ± 0.23 g. The mean values and standard errors of fifth week body weight, body weight gain, feed consumption per bird per bird, weekly feed consumption, feed conversion ratio and livability of Namakkal Gold quails were 218.94 ±1.34 g, 52.19 ± 1.39 g, 28.15 ± 0.30, 176.05 ± 0.36 g, 3.37 ± 1.12 g and 100 ± 0.00 respectively. This study concludes that Namakkal gold quail farming was alternate agricultural allied activity having better bussiness scope and can serve as an alternate source for meeting protein requirement of human population in Kanyakumari district.

Keywords: Body weight, feed consumption, livability and Namakkal gold quail

Introduction
Today in the market, quails meat in more demand. There is great potential in hotels and hypermarkets. Quail meat is tasty than chicken and has low cholesterol percentage. It promotes body and brain development of young ones. Quail meat is good for pregnant and infant feeding womens. Commercial quail farming is gaining popularity in Tamil Nadu very fast because of its acclimatization to varied climatic conditions, higher proliferation, shorter generation interval, quicker sexual maturity, faster growth rate, simple rearing procedures, lesser space requirements, relatively better disease resistance and quicker return on investment when compared to broilers / layers. Genetic selection for higher body weight and less feed consumption in Japanese quail is practiced during the last few decades leading to the evolution of new genetic line of quail. One such evolution is the new type Japanese quail strain "TANUVAS Namakkal gold quail" a Japanese quail strain, evolved by 5-way crossing by the Department of Poultry Science, Veterinary College and Research Institute, Namakkal under Tamil Nadu Veterinary and Animal Sciences University. Since these quail has better growth rate, high production performance in terms of body weight and less feed consumption compared to other quails. Hence, this study is aimed to evaluate production performance of Namakkal Gold quail in rural areas of Kanyakumari District.

Materials and Methods
Kanyakumari district is a coastal district of Tamil Nadu state in Southern India. Located just 699 km away from the state capital city Chennai, the territorial dominion of Kanyakumari lies at geographical co-ordinates between 77° 15' and 77° 36' east and 8° 03' and 8° 35' north. The district is located at the southerly point of Peninsular India. Furthermore, Kanyakumari is bordered by Tirunelveli district in the east and north side and Thiruvananthapuram district (Kerala) in the west, the Laccadive Sea on the southeast, south and southwest sides. Kanyakumari district is often cited as 'Land's end'. The minimum and maximum temperature of the district were 23 ^{0}C and 33 ^{0}C respectively. The average rainfall of the district was 1302.5 mm.
The biological study was conducted by using seven hundred Namakkal Gold quail straight run day old chicks were purchased from Veterinary college and Research Institute, Tirunelveli. On arrival, all chicks were provided electrolytes and vitamin supplements in clean drinking water

and distributed to seven beneficiaries each to 100 chicks. The brooding was carried out for a period of 14 days (2 weeks) using electric bulbs as sources of heat. The quail chicks were brooded at a temperature of 35 ^{0}C with adequate watering and feeding spaces provided. Light was provided for 24 hours during brooding to avoid pilling and death. The temperature was reduced gradually at the rate of 3.5 ^{0}C on weekly basis as brooding progress. Standard management and healthcare practices were followed throughout the experimental period and were kept in constant. Ad lib drinking water and quail pre starter ration were provided to the chicks up to 3 weeks of age. Subsequently, the grower ration during growing period was provided to the quails. During this experimental period, data on body weight and feed consumption were recorded at weekly interval and mortality was recorded at occurrence. From the above data, body weight gain, feed consumption per bird per day, feed conversion ratio and livability were calculated. The data collected on body weight, weekly feed consumption and livability upto fifth week were subjected to statistical analysis as per the methods suggested by Snedecor and Cochran (1989) [6]. Angular transformation was applied to percentages wherever needed before carrying out statistical analysis.

Results and Discussion

The mean (± S.E.) production performance of Namakkal Gold quail at different age groups are presented in Table 1.

The average body weight in grams of Namakkal Gold quail at day old, first, second, third, fourth and fifth week of ages were 7.26±0.23, 46.59±0.31, 90.07±0.72, 145.43±0.89, 183.75±1.02, and 218.94±1.34 respectively, whereas the body weight gain were 39.33±0.34, 43.48±0.76, 46.36±0.92, 50.32±1.08 and 52.19±1.39 respectively. The body weight at fourth weeks of age obtained in this study is comparable to that of the results of Karthika *et al.* (2016) [3]. Vinothraj *et al.* (2019) [7]. But the fourth week body weight was slightly higher in the present study compared to 178.69g observed by Vinothraj *et al.* (2019) [7] and slightly lower than 199.58g observed by Karthika *et al* (2016) [3]. In the present study fifth week average body weight gain of Namakkal Gold quails were higher than 45.35g of the earlier reports of Devi *et al.* (2012) [2] in broiler quails at fifth weeks of age.

The weekly average feed consumption in grams for Namakkal Gold quail during first week, second week, third week, fourth week and fifth week were as follows 55.86±0.08, 85.61±0.26, 119.21±0.27, 148.75±0.29, and 176.05±0.36. However, Devi *et al.* (2012) [2] observed a higher fifth week feed consumption of 209.29g in Japanese quails. On the other hand, Sangilimadan *et al.* (2018) [5] observed a lower feed consumption of 134.78g at fourth weeks of age. The weekly average feed consumption per bird per day in grams for Namakkal Gold quail during first week, second week, third week, fourth week and fifth weeks were as follows 8.02±0.02, 14.23±0.18, 19.03±0.19, 23.25±0.22, and 28.15±0.30. According to Bulus *et al.* (2013) [1], the average daily feed consumption quails at five weeks of age is 21.61g, which is lower than the present values.

The feed conversion ratio for Namakkal gold quails at first, second, third, fourth and fifth weeks were 1.42 ±0.05, 1.96±0.06,2.57±0.08, 2.95±1.00 and 3.37±1.12, respectively. The values of feed conversion ratio are in higher with findings of Sanglilmadan *et al.* (2018) who reported a feed conversion ratio of 2.47 at fifth weeks of age in Japanese quails.

The livability percentage of Namakkal Gold quails at first, second, third, fourth, fifth and sixth week of age were as follows 97.85± 1.25, 98.97 ±0.90, 99.11 ± 0.65, 100 ±0.00, 100±0.00. Similar value of livability in Japanese quails at fifth weeks of age was observed by Muthukumar *et al.* (2020) [4] earlier (100.00).

Table 1: Mean (± S.E.) Production performance of Namakkal Gold Quails at different age groups

SI. No	Age (weeks)	Body weight (g)	Body weight gain (g)	Feed consumption per bird per day (g)	Weekly Feed consumption (g)	Feed conversion ratio	Livability (%)
1	Day old	7.26 ± 0.23	-	-	-	-	-
2	First week	46.59±0.31	39.33±0.34	8.02±0.02	55.86±0.08	1.42±0.05	97.85±1.25
3	Second week	90.07± 0.72	43.48±0.76	14.23±0.18	85.61±0.26	1.96±0.06	98.97±0.90
4	Third week	145.43±0.89	46.36±0.92	19.03±0.19	119.21±0.27	2.57±0.08	99.11±0.65
5	Fourth week	183.75±1.02	50.32±1.08	23.25±0.22	148.75±0.29	2.95±1.00	100.00±0.00
6	Fifth week	218.94±1.34	52.19±1.39	28.15±0.30	176.05±0.36	3.37±1.12	100.00±0.00

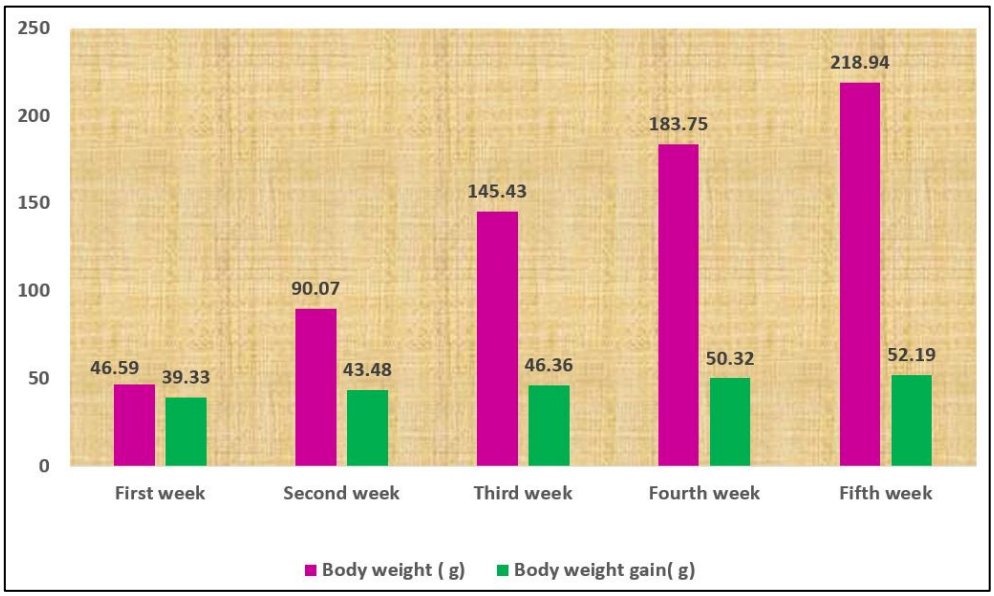

Fig 1: Body weight (g) and Body weight gain (g) of Namakkal Gold quail at different age groups

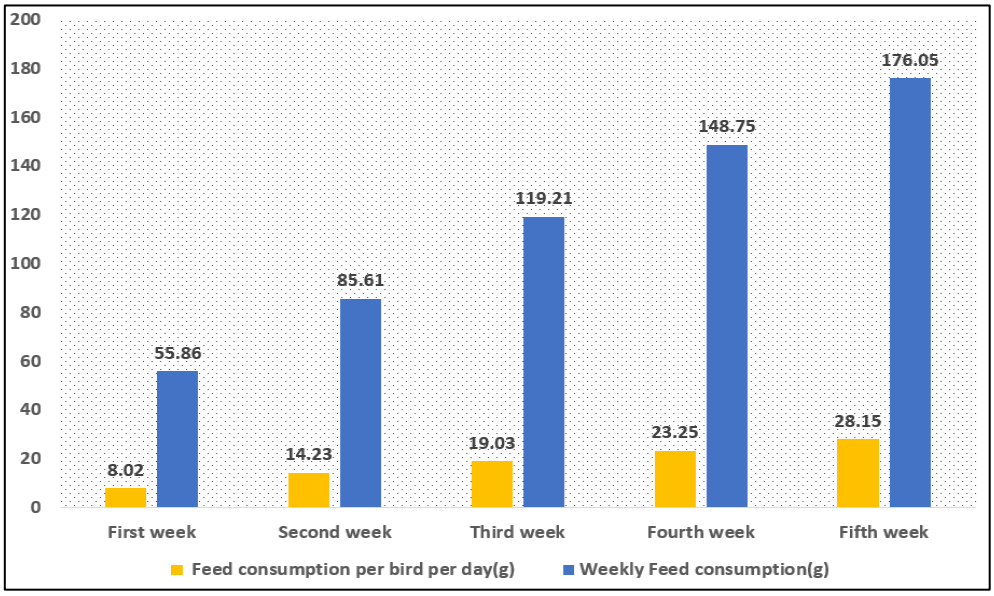

Fig 2: Feed consumption per bird per day (g) and Weekly feed consumption per bird per day (g) of Namakkal Gold quail at different age groups

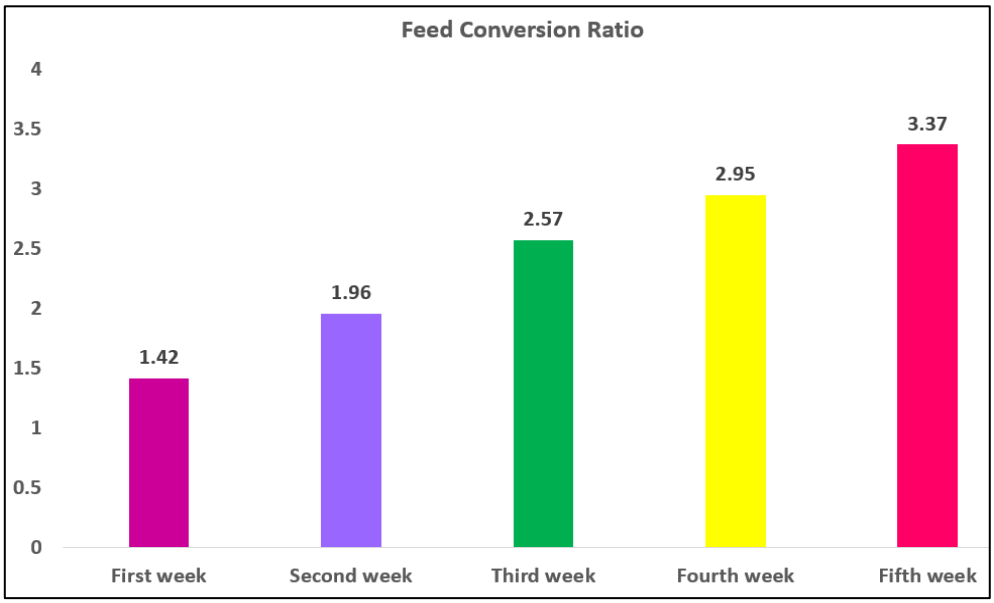

Fig 3: Feed Conversion Ratio of Namakkal Gold quail at different age groups

Conclusions

It is concluded from the results, Namakkal Gold quail are performing well in the Kanyakumari district agro climatic condition and the same can be promoted widely as new entrepreneurial farming activity to the rural farming youths. The livability of the Namakkal Gold quail in Kanyakumari district was 99.18%, which evidently shows the scope of Namakkal Gold quail farming in the district in the future. If this alternate farming activity pick up well in the district, it will be the alternate game changing livestock farming activity to the rural poor, because of its adaptability and nutritious meat quality.

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References

1. Bulus ED, Aguda AY, Ezekiel J, Dodo ST, Ibe EA. Growth performance of Japanese quails (*Coturnix coturnix* Japonica) fed two types of commercial broiler diet. Adv. Agr. Sci. Eng. 2013;3:1227-1234.
2. Devi KS, Gupta BR, Prakash MG, Reddy AR. Genetic parameters of feed efficiency and daily weight gain in Japanese quails. Tamil Nadu J Vet. Anim. Sci. 2012;8:6-13.
3. Karthika S, Chandirasekaran V. Carcass characteristics of Namakkal quail-1. Int. J Sci. Environ. Tech. 2016;5(4):2257-2264.
4. Muthukumar S, Chandrasekar K, Gopalakannan A, Rajakumar M. Production Performance of Namakkal Quail in Nagapattinam District, India. Int. J Curr. Microbiol. App. Sci. 2020;9(7):3368-3372.
5. Sangilimadan K, Richard Churchil R. Production performance of two strains of Japanese quails under deep litter system of management. Indian Vet. J. 2018;95(04):33-35.
6. Snedecor GW, Cochran WG. Statistical methods, 1989. 8th ed., Iowa State University Press/Ames, Iowa - 50010.
7. Vinothraj S, Alagesan P, Siva M, Sirinivasan RD. Production performance of Namakkal Gold quail in western zone of Tamil Nadu. Indian J Res. 2019;8(1):1991-2250.