



IRANIAN ARIAN COMMERCIAL BROILER LINES

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Ministry of
Agriculture Jihad



Vice Presidency for
Science and Technology

● Iranian Arian Commercial Broiler lines Productions

Arian commercial broiler lines have been established in 1991 from the Hybro N pedigreed broiler line. The elite birds of these pedigreed-pure lines are reared with the low-density diet to reduce susceptibility to feed quality variation and genetically selected for economically important traits such as growth rate, feed conversion ratio, leg disorders, carcass qualities, fertility, egg production, hatching egg, and chick quality. The Arian pure lines produce grandparent and parent stocks, and high-quality broiler chickens for rearing in a variety of environments.





● The Arian grandparents and parent stocks benefit of:

- Good fertility, hatchability and high-quality day-old chicks
- Good health and livability during rearing and production
- Lower feed requirements of the birds than other commercial strains
- Well-adapted to stressors

● The Arian broiler chicks benefit of:

- Average growth rate of 61.2 gr/day
- Standard welfare and livability
- Well-adapted to low-density energy and protein feeds and nutritional stresses
- Standard feed conversion ratio
- Strong walking ability and free from leg disorders
- High meat quality characteristics and free from white striping, wooden breast, and green muscle abnormalities



● Parent Stocks Performance Objectives

Table 1. Performance of male and female parent stocks during rearing period (0 to 20 weeks)

Female feed intake (kg)	7.4
Male feed intakes (kg)	8.5
Female body weight at 20 weeks (gr)	2160
Male body weight at 20 weeks (gr)	2640
Maximum mortality (%)	3

Table 2. Performance of male and female parent stocks during production period (21 to 64 weeks)

Age at start of egg production (weeks)	23
Age at depletion (weeks)	64
Age at peak production (weeks)	29-30
Peak production (%)	86
Total egg production (Hen Housed)	178
Hatching egg (Hen Housed)	166
Hatchability (%)	83
Saleable chicks/female housed	137.6
Female body weight at 64 weeks (gr)	3665
Male body weight at 64 weeks (gr)	4615
Total feed intake during egg production (kg)	43.5
Average weekly mortality (%)	0.2



● **Broiler chickens Performance Objectives**● **Table 3. Performance of Arian broiler chickens (As hatched)**

Age (weeks)	Feed intake (gr)	Body weight (gr)	FCR
1	135	163	0.83
2	520	423	1.23
3	1100	805	1.38
4	2065	1360	1.52
5	3270	1970	1.66
6	4650	2570	1.81

● **Table 4. Nutrient composition of Arian broiler chickens (As hatched)**

Nutrient composition	1 to 14 days	15 to 24 days	25 to 35 days	36 to 45 days
ME (kcal/kg)	2870	2950	3025	3025
CP (%)	21.5-22.5	19.5-20.5	18.0-19.0	17.0-18.0
Digestible Lysine (%)	1.18	1.07	0.98	0.93
Digestible Methionine (%)	0.52	0.47	0.43	0.41
Digestible Threonine (%)	0.78	0.72	0.66	0.63
Calcium (%)	0.96	0.87	0.78	0.78
Available P (%)	0.48	0.44	0.39	0.39





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