

Pellet size

- ▶ **Ducklings, pellets should not have more than 4.0 mm diameter & 8 mm length.**
- ▶ **After two weeks of age, ducklings can consume pellets of 5 mm in diameter and 12 mm in length.**





Paddy : 50 parts

Rice Polish : 15 parts

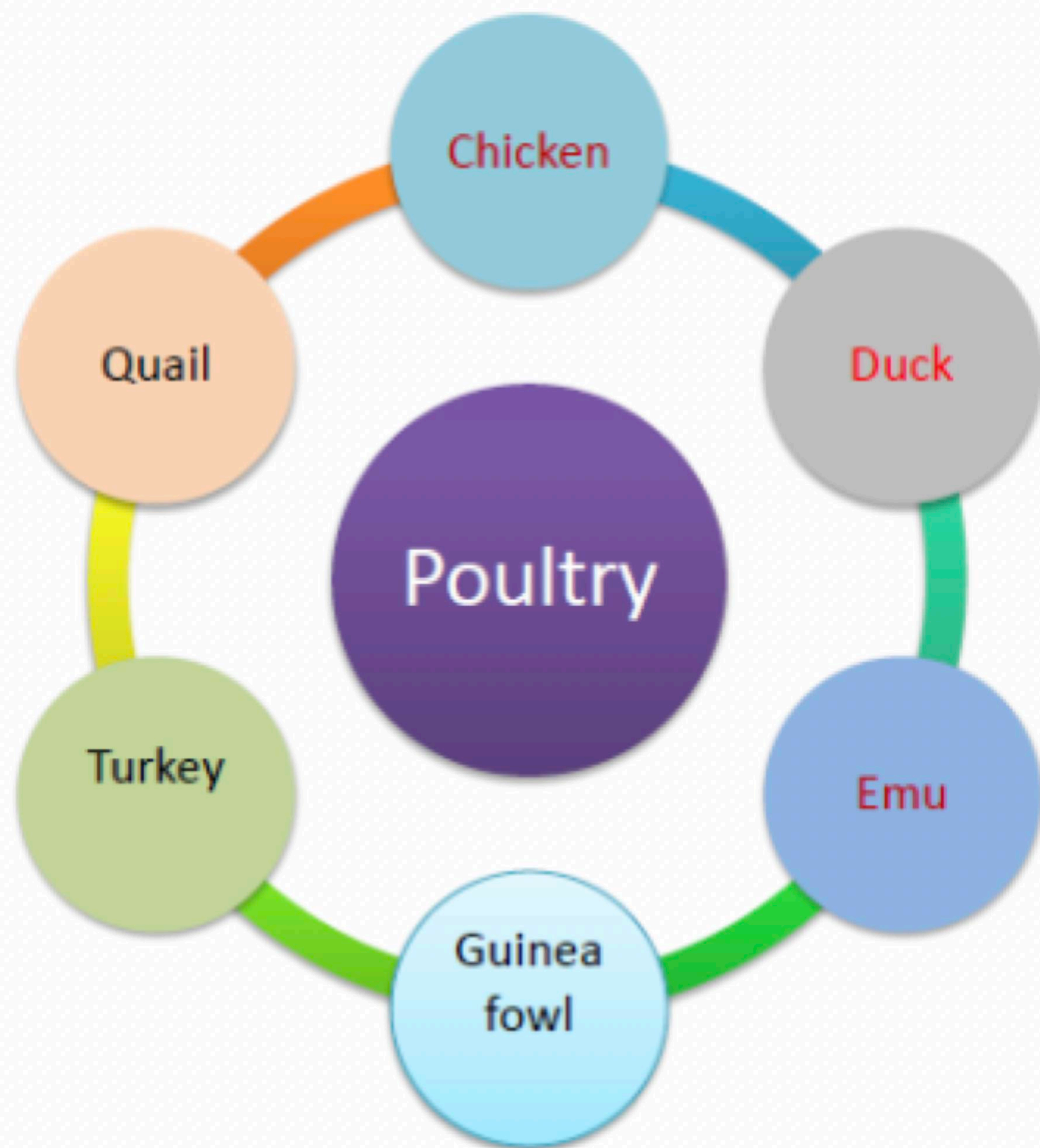
Wheat bran : 10 parts

Dried fish : 25 parts

Feed formulation for ducks

Ingredients (kg/100 kg)	Starter 0-2 weeks	Grower		Layer (21 wks onwards)
		3-8 weeks	9-20 wks	
Maize crushed	41	40	40	40
Rice polish	10	13	14	10
Wheat bran	5	8	7	4
Broken rice	5	7	8	5
Till oil cake	10	7	10	8
Soyabean meal	12	10	8	10
Dried fish crushed	10	8	8	10
Meat meal	5	5	3	6
Bone meal	0.5	0.5	0.5	0.5
Oyster shell/limestone	-	-	-	4.5
Mineral and vitamin mixture	1.5	1.5	1.5	2.0

*For every 100 kg ration, vitamin (A, B₂ and D₃)= 25 g ; Niacin = 5 g ; Total 30 g.



DUCKS SHOULD NEVER HAVE ACCESS TO FEED WITHOUT WATER.

Feed ingredients

Groundnut meal (peanut meal) –aflatoxin

Ducks are highly sensitive - GN meal should be avoided unless it is free of aflatoxin.

Tolerate only 0.03 ppm of aflatoxin.

**Rapeseed meal - toxic
- erucic acid & goitrogens.**

**Ducks - sensitive to erucic acid than
chicken & turkeys.**





Rice- Fish –Duck Integrated practice
Collaboration with ICAR-NRRI, Cuttack

Rice-Fish-Duck Integration

Benefits:

Three components in one field.

Enrichment of soil through duck faeces causes minimisation of chemical fertiliser.

Plankton growth in water as feeding source for fishes

Biological control of insects (Stem burrower in rice)

Ample feeding material for ducks
Economic gain: **2.6 times** of return if rice alone

1.0 Hectre land
100 ducks
4000 fish fingerlings (Carp)



Integrated Farming systems.....



- ❖ Area = 0.1ha/20 ducks
- ❖ Duck-Fish-bound crops

Performance Study of Polythene Pond Technology in Farmer's Field

Parameters	Khaki Campbell	Native ducks
Age at first egg in (days)	163.45	169.00
Weight of birds at first egg	1429.74	1521.59
Average egg weight (35 th wk) g	61.09	66.21
Egg laid / duck (up to 72 weeks of age)	193	178

(Source: DST Funded Project between 2013-17)

BREED OF KERALA

KUTTANADAN

KUTTANADAN CHARA & KUTTANADAN CHEMPALLY

- Body weight-1.5-2 kg. at 11 weeks of age.
- Start egg production by 18-19 weeks.
- Annual egg production 200.
- Egg weight 65-75g.
- Productive life 3yrs
- Easy to herd.

COMPARISON BETWEEN KHAKI CAMPBELL AND KUTTANADAN DUCKS

SL. NO.	QUALITY	KHAKI CAMPBELL	KUTTANADAN DUCKS
1	EGG WEIGHT	50-55g	65-75g
2	BODY WEIGHT	1.3-1.5kg	1.5-2kg
3	ANNUAL EGG PRODUCTION	230-250	200
4	PRODUCTIVE LIFE	2 years	3 years

Feeding of Turkeys

- ▶ Turkey poults require, double the space compared to chicken.
- ▶ Turkey poults - not self-reliant like chicken
- ▶ Poults need to be force-fed for the first few days.
- ▶ Feed must be kept under bright light.
- ▶ Sometimes put coloured marbles in feed and water to attract the turkey poults.



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Feeding of Turkeys

- ▶ **Fresh Lucerne, Desmanthus and Stylo can be chopped and fed turkeys to reduce the feed cost.**
- ▶ **Milk – 100 ml per litre of water and one boiled egg - given at the rate of one per 10 poults up to fifteen days.**
- ▶ **Poults can be attracted to the feed by gentle tapping of the container with the fingers.**

Feeding of Turkeys

- ▶ **The average feed requirement - 20 to 25 Kg. per bird up to six months of age.**
- ▶ **The feed requirement for the male birds is more than the females as the males are heavier to females.**
- ▶ **Turkeys require more of protein, mineral and vitamins than chicken to meet the fast growth.**
- ▶ **Turkey rations are costlier than chicken rations.**

Feeding of Turkeys

- ▶ **Turkey must always be fed on trough or hoppers and never on ground.**
- ▶ **The feed hoppers must never be overfilled to avoid wastage.**
- ▶ **Turkey broilers are slaughtered between 12 and 27 weeks as soon as they can provide 5.5 to 7.5 kg of meat.**

Feeding of Turkeys

Egg weight 65 gms

Age at sexual maturity - 30 weeks Average egg number 80 -100

**Body weight (kg) at 20 weeks : 4.5 – 5 (Female)
7-8 kg (Male)**

Egg production period - 24 weeks

Marketable age (weeks) - Male 14 -15

**Female - 17 – 18 Marketable weight (kg)
– Male – 7.5 □ Female - 5.5 kg**



Feeding of Turkeys

Feed efficiency - 2.7 -2.8

Average feed consumption (kg) up to marketable age : Male - 24 -26 Female - 17 – 19 kg

Energy and protein requirements for the both sexes vary and hence separately for better results.

Provide shell grit at the rate of 30-40 gm per day per bird to avoid the leg weakness.



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Feeding of Turkeys

Turkeys are fond of greens, some chopped green leaves should also be added to the feed to improve the feed intake.

LEAFY GREENS



ARUGULA



KALE



DINOSAUR KALE



CHARD



COLLARD GREENS



CURLY ENDIVE



MACHE



MIZUNA



TAT SOI



SPINACH



DANDELION



WATERCRESS



ROMAINE



PURPLE KALE

Nutrient requirements (as fed basis) of turkey

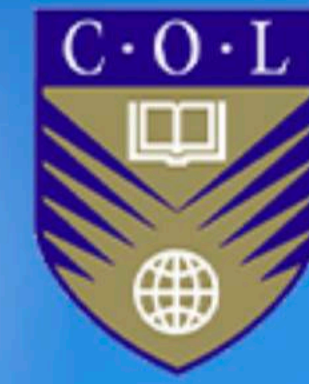
Nutrients	0-6 wk	6-12 wk	12-18 wk	18 wk, pre-laying	Breeder
ME (kcal/kg)	2,800	2,800	2,650	2,600	2,650
CP (%)	24.0	22.0	18.0	15.0	15.0
Arginine (%)	1.5	1.4	0.90	0.65	0.6
Lysine (%)	1.5	1.2	1.05	0.72	0.6
Methionine (%)	0.55	0.45	0.35	0.25	0.2
Threonine (%)	0.95	0.85	0.70	0.55	0.45
Linoleic acid (%)	1.0	1.0	0.80	0.8	1.10
Calcium (%)	1.2	1.0	0.80	0.6	2.25
Phosphorus (%)	0.55	0.5	0.38	0.3	0.35
Niacin (mg/kg)	60.0	60.0	45	40	40.0
Pantothenic (mg/kg)	10.0	9.0	9	9	16
Choline (mg/kg)	1,600	1,400	1,050	875	1,000

ICAR, 2013 Nutrient Requirements of Poultry



Feeding management of native chicken, ducks, quails and turkeys





Thank you