

# Formulation of Cattle Ration By Thumb Rule Method

It is a method for supplying feeds approximately to our livestock. Although there are so many feeding standards, important three are: 1. National Research Council of USA (NRC), 2. Agricultural Research Council of UK (ARC), 3. Indian Standard. In scientific method feeds are supplied accurately according to their nutritional requirement, but it is difficult to the farmers to supply feed to their livestock by following above scientific methods. In this case thumb rule may guide them to supply feed for their livestock.

**A. Roughage Calculation (On the basis of live weight of animal):**

1 Kg Dry (Straw or Hay) and 3 Kg Succulent (Green grass or Silage) per 100kg live weight. If we have to use only dry or succulent, then the ratio will be 2 Kg Dry or 6 Kg Succulent per 100kg live weight.

**B. Concentrate Calculation (On the basis of milk production):**

Step I - For first 3 liter milk = 2 Kg Concentrate

Step II - For rest milk; 3 liter milk = 1 Kg Concentrate (When fat % below 4) or 2.5 liter milk = 1 Kg Concentrate (When fat % over 4).

(**Concentrate mixture:** Wheat bran- 40%, Rice polish-20%, maize- 20% and Oil cake 20%)

**C. Mineral Calculation:**

Steamed bone meal = 1 % of total Concentrate. Common Salt = 1 % of total concentrate. (Approx. Nacl = 120 gm & Steamed Boned Meal = 60 gm.)

**D. Water Calculation:**

Fresh clean drinking water: Ad-libitum (Approx. 30 to 40 liters).

## Ration for livestock (Thumb rule)

Types of Animal	Roughage		Concentrate
	Rice straw	Green fodder	
1. Growing calves	0.75kg/ 100kg L.W.	2 kg/ 100kg L.W.	2 kg/ 100kg L.W.
2. Dairy cow	1 kg/ 100kg L.W.	3 kg/ 100kg L.W.	2kg for 1st 3 liters & 1kg for next 3 liters
3. Fattening animal	0.75 kg/ 100kg L.W.	2 kg/ 100kg L.W.	2.5 kg/ 100kg L.W.
4. Dry cow	2 kg/ 100kg L.W.	2 kg/ 100kg L.W.	0.25 kg/ 100kg L.W.
5. Breeding bull	1 kg/ 100kg L.W.	2 kg/ 100kg L.W.	1 kg/ 100kg L.W.
6. Bullock	2 kg/ 100kg L.W.	2 kg/ 100kg L.W.	0.25 kg/ 100kg L.W.

## Thumb Rule

### A. For maintenance:

Item of feed	Zebu cattle	Indian/cross/pure/buffalo
1. Rice straw	4 Kg	4-6 Kg
2. Concentrate Mixture (with little green grass)	1.25 Kg	2 Kg

### B. For Milking cows:

Item of feed	Zebu cattle	Indian/cross/pure/buffalo
1. Rice straw	4 Kg	4-6 Kg
2. Concentrate Mixture (with little green grass)	1 Kg/2.5 liter milk + 1.25 Kg	1 Kg/2 liter milk + 2 Kg

### C. For Pregnancy:

Item of feed	Zebu cattle	Indian/cross/pure/buffalo
1. Rice straw	4 Kg	4-6 Kg
2. Concentrate Mixture (with little green grass)	1.25 Kg + 1.25Kg + 1 Kg/2.5 liter milk	1.75Kg + 2 Kg + 1 Kg/2 liter milk

### D. For draught:

Item of feed	Zebu cattle	Indian/cross/pure/buffalo
1. Rice straw	4 Kg	4-6 Kg
2. Concentrate Mixture (with little green grass)	1.25 Kg + 1.25 Kg	1.75 Kg + 2 Kg

### E. For goat and sheep:

Body weight (kg)	Concentrate feed (g/d)	Green roughage (Kg/d)
2.4-4.5	Mother milk is sufficient	-
4.5-9.0	50g for first 5 kg live weight and then 50g for next every one kg	adlibitum
9.0-30.0	350g	2-2.5kg or adlibitum
30.0-70.0	400-500g	5-6kg or adlibitum

### Mineral Calculation:

Steamed bone meal = 1 % of total Concentrate. Common Salt = 1 % of total concentrate.

### Water Calculation:

Fresh clean drinking water: Ad-libitum.

**Concentrate mixture:** Maize- 20%, Wheat bran- 20%, Rice polish-20%, bran of pulse seed-20%, Oil cake- 20%