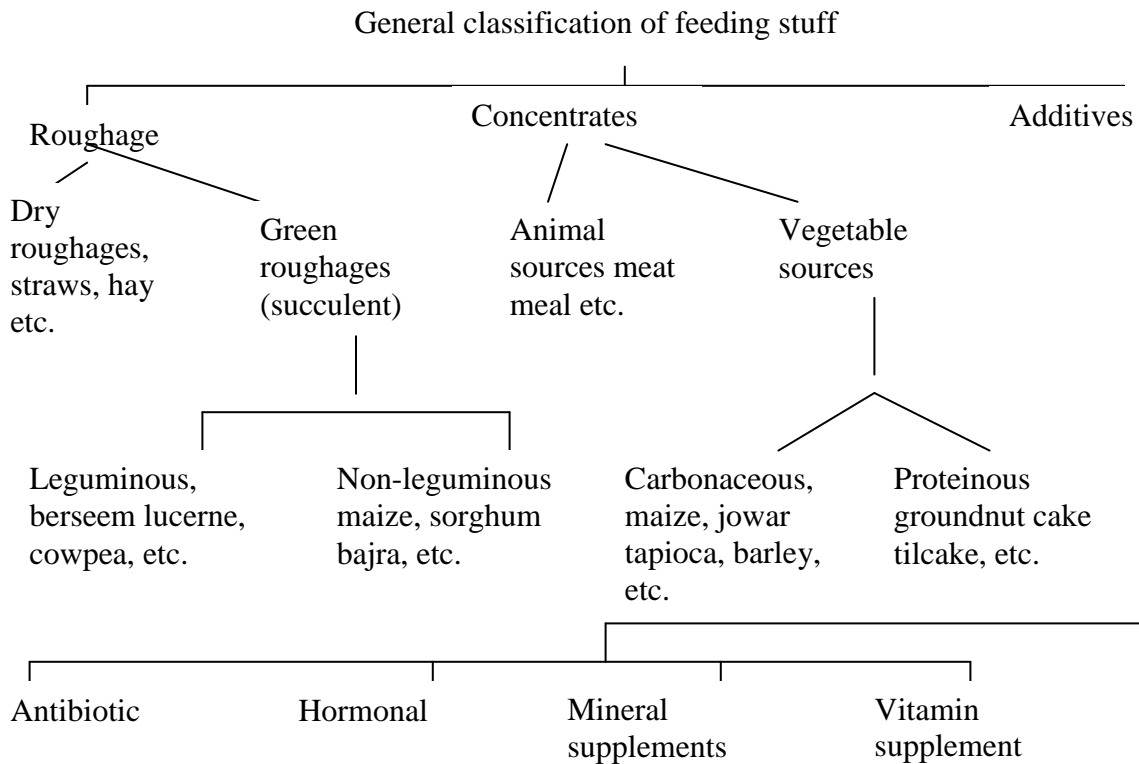


**Class 12: Nutrition-Definition-Ration-Balanced ration-Desirable characteristics of a ration.**



Nutrition involves various chemical reaction and physiological process which transforms Food into body tissue ( milk, meat, egg, wool )and activities (Work power).Nutrition involves ingestion, digestion, and absorption of the various Nutrients and their transport to all the body cell and the removal of unusable elements and waste products of Metabolism.

Nutrients are defined as the substances which can sustain or aids in the support of the life. Lavoiser-French Scientist is referred as father of Nutrition. There are two aspects in Animal Nutrition

1. Science of Nutrition – It is the work of Animal Nutritionist
2. Art of feeding of animals.- Good stockman ship.

**RATION :**

is the feed allowed for a given animal during a day of 24 Hours.

**Balanced Ration.**

Balanced ration which provides essential nutrients to the animals in such proportion and amount that are required for the proper nourishment of the particular animal.

S.No.	Concentrate	Roughages
1.	10 % Moisture and 90% Dry matter	Dry fodder--10 % Moisture and 90%

		Dry matter Green Fodder---80-90 % Moisture and 10% Dry Matter
2.	Highly Digestible	Comparatively less digestible
3.	Crude fibre less than 18%	More than 18%
4.	Nutritive Value/unit mass is high	Low
5.	Compact in Nature	Bulky
6.	Keeping quality -High	Variable : Dry Fodder – High, Green fodder- Less/low

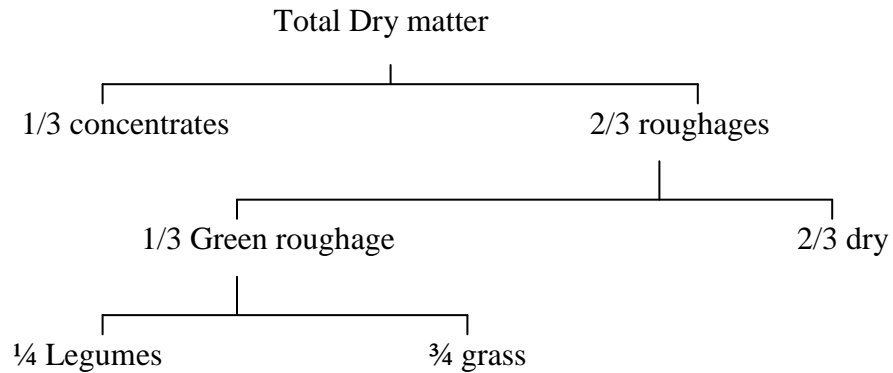
### **Desirable Characters of a ration.**

1. Liberal feeding ; Satisfy all the physiological status +waste in preparation+Feeding.NOT over feeding-Doubly Wasteful.
2. Individual Feeding : Avoid Competition ; adequate –individual feeding is always better.
3. Properly Balance : Concentrate; Roughage. a. green fodder i. Leguminous and Non Leguminous  
fodder. b. Dry fodder.
4. Palatable & Variety : Better and balanced mixture of protein, vitamins and other nutrients.
5. Good and Sound : Low quality-unwholesome ingredients, may contain toxic components-poor  
quality –reduce feed value.
6. Mineral Mixture : Every Kg milk- 0.7%.-Deficit –depletion cause metabolic disease. milk contains eg. Ca 3 g and 2.7 g in milk and 3 grams in egg shell.
7. Laxative : otherwise food will be incompletely digested constipation-digestive disorder-utilisation  
–nutrients affected-reduction in production.
8. Bulky : Capacious and satiety .
9. Green Fodder : Source of vitamin-‘A’-reproduction-Bulky- laxative-cost wise cheap-unidentified  
factors-easily digestible.
- 10.Avoid change in the diet: Bacterial digestion-Prevalence of specified species-sudden change –  
digestive disorder.

11. Maintain regularity : Glandular Secretion-essential for digestion.

12. Properly Prepared : Hard grain-Coarsely ground-Cottonseed soaked-coarse fodder – chaffed-sprinkled salt-molasses-increases consumption.

13. Labour and cost ; ultimate –aim-profit ; 70 % cost of production is attributed to feeding of animals.



Eg. 400 Kg. B.weight      2 – 2.5 % Bwt. – x-9 (8-10)

