

## CHAPTER- 8

# Computation of ration for different categories of farm animals

### Objectives

1. How to compute a ration for farm animals.
2. What percent of roughage and concentrate to be incorporated in the ration of animals.

### Introduction

Feeds, fodders for livestock costs around 50-80% depending the type of animals. In ruminants, as these are fed on roughages, feed cost is lesser than non ruminants like pig and poultry. Thus, computation of ration is important to minimize the cost of production and better return to the farmers. For computation of ration information is needed to balance the diet for any animal at any physiological stage regarding the ingredients available, their composition or nutritive value and requirement of the animal. Ration comprises of concentrates, rich in protein and roughages rich in fibre.

**Composition of concentrate mixture:** A typical concentrate mixture contains about 50% cereals/ energy source may be maize, barley, oats and sorghum grain, 25% vegetable protein source may be mustard cake, groundnut cake, soybean meal and other unconventional oilcakes, 8% animal protein source may be fishmeal, 14% mill by-products may be rice polish, wheat bran, maize gluten etc. and 2% mineral mixture and 1% common salt. The ingredients is to be grind and mix well for feeding of the animals. This mixture may give 18-20% crude protein and 70-75% total digestible nutrients (TDN).

**Composition of roughages:** Cultivated fodder crops like maize and sorghum, oats are non legumes and have around 6-8% crude protein, 60-65%TDN while legumes like berseem, cowpea and lucerne have 14-18% crude protein, 60-65% TDN on dry matter basis. Hay prepared from oats or sorghum may contain 6-8% CP and 60% TDN while maize silage may contains 6-8% CP and 60%TDN. In addition to these common feeds, there are number of tree leaves and unconventional feeds/ fodders available in different places of India. These are to be judiciously utilized for efficient manner to improve production and economy.

### Sample questions

1. What is feed cost for feeding dairy animals?
2. What is typical composition of concentrate mixture?
3. What is crude protein and total digestible nutrients contribution from legume fodders?