

# FIBROUS FEEDS/ FILLER FEEDS (Straw and similar materials)

- The undigestible organic matter content of a feed or diet is called **filler** or **balast** material.
- Presence of such material in ration in adequate quantity:
  - a)** facilitates normal digestion
  - b)** provides mechanical saturation
- Mechanical saturation— 75% of the digestive tract should be full.

# Filler Feeds

- In case of insufficient filler material in a diet
  - 1) The feedstuffs swiftly pass through the digestive tract and nutrients are wasted and not absorbed by the animal.
  - 2) Animals try to eat litter, board material etc. to meet their nutrient needs.
  - 3) In case of excessive deficiency of filler material, ruminant animals develop a condition called **Pica** and in poultry it results in **cannibalism**.

## Excessive presence of filler material in ration

- Digestion problems
  - Poor feed utilization by animals
  - Nutrients needs are not properly satisfied, thus, resulting in “Physiological Hunger”.
- Feeds rich in filler material; Straws, husk, shell and other roughages.

# STRAW

- Straw is defined as the stems and leaves of agricultural products remained after harvesting and removing the grains as the plant vegetation period is completed.
- These feeds are rich in lignin and poor in other nutrient contents.
- Not used in poultry and pig feeding.
- Legume straws have ↑ protein and ↑ Ca as compared to the cereal straws.
- All straws are ↓ in P and Vitamins
- Not much liked by the animals, thus, should be fed with other feeds such as meals, grains, molasses etc.  
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- Harvesting; Cutting/ mowing the agricultural products after their growth and maturity phase is completed
- For cereals during harvesting; stalk is cut along with the head
- Threshing (Harman), It is the separation of harvested agricultural products from their heads, cob, shell, husk, stem and straw.
- Wheat, barley, oat, rye harvesting: done in-between yellow and full stage.
- Yellow stage: plant turns yellow, leaves get dry. Grains haven't dried completely. Moisture content is 29%.
- Full stage: All of the plant dries, grains get hard. Moisture content is 15%.
- Harvesting is done usually in the morning at 9-10 hours when the dew is removed.

- **IMPORTANT POINTS TO BE CONSIDERED WHEN GIVEN TO THE ANIMALS**

- Straws must be fresh and of natural color,
- Must not be moldy and odorous. Must not contain harmful weeds
- Must not be fed as a whole. Particle size should be  
Cattle 2.5 - 3.5 cm,  
Sheep 1.5 - 2.5 cm
- Feeding quantity for straws  
Cattle 2-7 kg/day,  
Sheep 1-2 kg/day,  
Horses 3-4 kg/day