

- Cattle: upto 40%
- Sheep: 500 g/day,
- When given alone it is dangerous for horses
- Laxative effect when given in excess amount
- Horses 15-20%
- Cracked roughly and rolling

Triticale

- A hybrid of wheat and rye.
- more protein and more exogenous amino acid than corn
- More lysine and more methionine than wheat
- More phosphorous than wheat and rye

- Digestibility similar to wheat
- NSP arabinoxylan
- Negative effects on especially young poultry
- Proper enzyme to the diets
- Alternative to corn and wheat
- Dairy cattle, beef cattle: upto 30%
- Poultry 30-40%

Sorghum (*sorghum vulgare*, sorgum)

- Similar to corn
- Used in all animal diets
- Especially in poultry nutrition
- Feed value is about 95% of that of corn
- Energy is about 97-100% of corn
- Vitamin and mineral content is similar
- yellow corn is rich in provitamin A and pigments

- CP:11-15% is higher than corn
- Limited amino acids are lysine and threonine
- Ether extract is lower than corn
- Fibre is higher
- Contain fenoleic acid, flavonoids and tannen
- Brown sorghum rich in tannen causes constipation and colics
 - Tannen decreases digestibility and palatability

OIL SEEDS

Oilseeds

- Soyabean
- Canola seed
- Cotton seed
- Safflower seed
- Sunflower seed
- Linseed
- Hempseed

Canola seed

- DM: 90%
- CP: 20-25%
- EE: 43-50%
- Unsaturated fatty acids ↑
- Oleic acid, linoleic acid ↑
- Alpha linolenic acid ↑
- Ash: 2%
- ADF: 18%
- Glucosinolates and erusic acid ↓

- Upto the level diets containing 5% fat
- Poultry diets 10%
- Ruminant diets 5%

Cottonseed (Pamuk tohumu)

- Crude protein 22% DM
- Oil 2% DM
- High fibre (crude fibre 28% DM)
- Used as whole grain, dehulled, raw, crushed.
- Excellent for beef and dairy cattle due to high energy (fat), protein and fiber content