

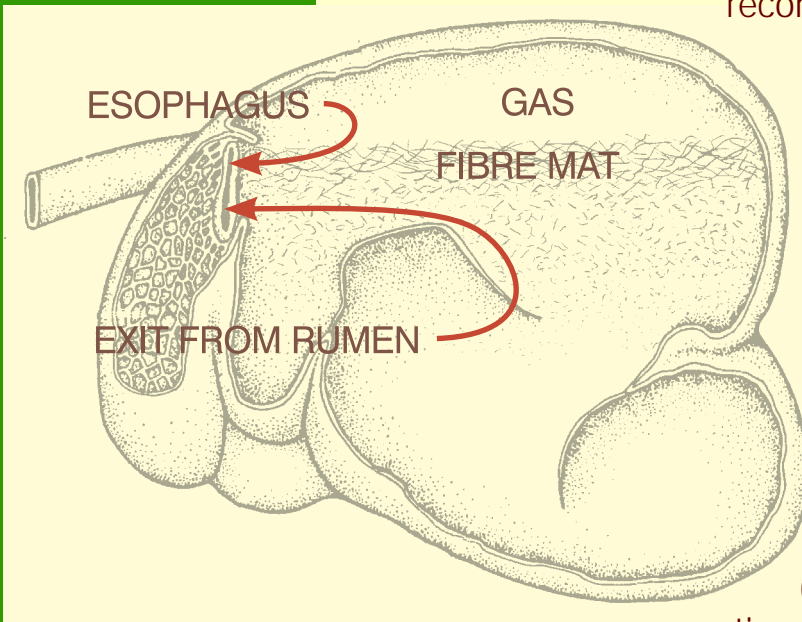
Fibre Requirements - Lactation

A minimum of 21% [Acid Detergent Fibre](#) (ADF % of dietary dry matter) and 28% [Neutral Detergent Fibre](#) (NDF % of dietary dry matter) is recommended for cows during the first 3 weeks of lactation.

From this point until several weeks past peak lactation, ADF and NDF levels in dietary dry matter may be reduced to 25% and 19%, respectively, to allow for the formulation of diets which will satisfy [energy requirements](#) for maximum peak production. From mid- to late lactation, energy requirements decline. Therefore, ADF and NDF levels in the diet should be increased to prevent digestive disorders.

Cows require both *physical fibre* (structured roughage) and *chemical fibre* (cellulose and hemicellulose). Physical fibre stimulates chewing and rumen contractions and the fibre mat (illustrated in the diagram on the left) which floats on the rumen fluid has positive effects on rumen feed particle dynamics.

Cellulose and hemicellulose are essential substrates for a large population of rumen microbes.



for more information:

[Fibre for Lactating Cows](#), Alberta Dairy Management

[What Manure Can \(and can't\) Tell You](#), Alberta Dairy Management

[How much fibre is enough?](#), Dairy Research Results from the Lethbridge Research Centre

Nutrient Requirements of Dairy Cattle, NRC 1989