

Ch. 8 Stomachs of Goat and Sheep (p.63)

A. Herbivore ruminants

1. Ruminant stomachs

- rumen: first stomach? By bolus passage
- reticulum: second stomach, why?

B. Rumination

1. cycle: return of digesta (cud) back to mouth → rechewing → remixing with saliva → reswallow
2. Cud: from where? mostly water and forage
3. Mastication: eating vs. rechewing
4. Rechewed bolus: specific gravity increased and enters reticulum

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C. Rumination time (p.64)

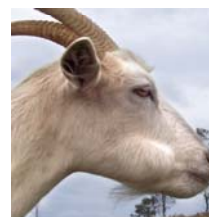
1. Daily total time spent

-long hay > chopped > ground

-forage : concentrate ratio in the diet

2. Time of the day

3. Time duration of each rumination cycle



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D. Rumen: movement, chemical and microbial actions

E. No amylase in saliva; no secretion by reticulo-rumen

F. Rumen microorganisms: mainly to digest carbohydrates

1. bacteria, fungi, protists (ciliates)
2. synthesis of vitamin B complex and vit. K
3. convert non-protein N (urea, ammonia) to protein (microbial mass)

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G. Major food for goats: forages

1. Rich in fiber

2. 70% of fiber is digested in the rumen; the rest in the caecum and large intestine



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