

Histological changes in rumen epithelium of reindeer calves during the winter season

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Abstract: Histological samples were taken from five different parts of the rumen from six reindeer calves in December (Group 1) and from six 1 year old calves in April (Group 2). A digitizer was used to measure the thickness of different cell layers in the rumen papillae. Individual variations were great, but some differences could be seen. The whole epithelium was thicker ($P < 0.05$) in animals belonging to Group 1. This was due to thicker *stratum granulosum* ($P < 0.01$) and other cell layers excluding *stratum basale*. Thickness ratio *stratum basale*: other cell layers was lower ($P < 0.05$) in Group 1. These results indicate that the epithelium of rumen of reindeer calves becomes less active during the winter.

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