

Research Article

Digestion and retention time of stained food in sheep

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Abstract

The suitability of stained food and [¹⁰³Ru]phenanthroline-treated food as markers for measuring dietary retention time was examined in sheep. The digestibility of oat husk, assessed by incubation of samples contained in nylon bags in the rumen, was greatly depressed by staining with brilliant green, and slightly depressed by basic fuchsin. The latter effect appeared largely to be due to boiling rather than the stain itself.

When milled hay treated with both basic fuchsin and [¹⁰³Ru]phenanthroline was introduced into the rumen, the mean retention time estimated with the stain was about 40% longer than that estimated with [¹⁰³Ru]phenanthroline.

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