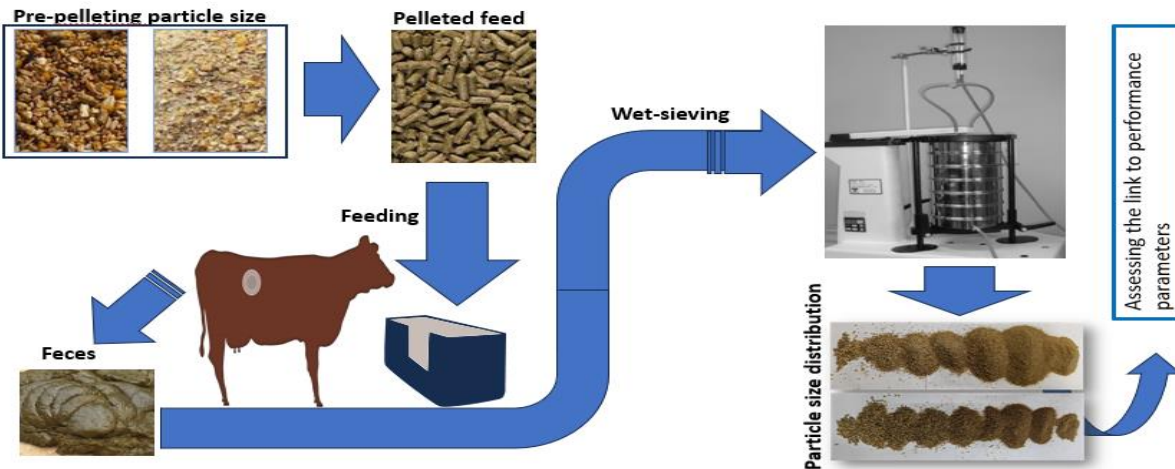


Topic/Title (Norwegian):

Bestemmelse av partikkelstørrelse i gjødsel v.h.a. våtsikningsteknikk som proxy for fordøyelighet og fordøyelseskapasitet hos NRF-kyr

Topic/Title (English):

Assessment of particle size distribution in feces by use of wet-sieving technique as proxy for nutrient digestibility and digestive capacity in NRF cows



Summary: Efficient utilization of nutrients from feeds by livestock is dependent on the digestibility of feeds and the digestive capacity of animals. Different feeds, and different processing techniques thereof can affect the proportion of digested nutrients with implications on the absorption and utilization of nutrients. Furthermore, any potentially utilizable nutrient excreted in feces is a wasted resource and an environmental burden. Therefore, different processing techniques are employed to improve digestibility of feeds. For concentrate feeds, method of processing (e.g., pelleting, degree of heat treatment and ingredient particle size at pelleting) can affect the extent and site of digestion of nutrients. These in turn can influence the synchrony of nutrients available for productive purposes. In AlkaNor project, we have tested the effects of different concentrate feeds (*varying in the level of Norwegian ingredients and particle size of basal ingredients at pelleting*) on total feed intake, diet digestibility, milk production and milk quality. In the trial, the concentrate feeds constituted ca 35% of the dry matter intake with grass silage covering the remaining part of intake. Preliminary indications are that the concentrates- in the amounts consumed- modulated total dry matter and nutrient digestibility. The objective of this bachelor thesis is to assess the particle size distribution and chemical composition of fecal samples collected from these cows using a wet-sieving technique.

Type of work: Laboratory work, data analysis, literature study

Subject area: Ruminant nutrition, feed resource evaluation

Language thesis: Norwegian or English (by choice)

Bachelor or Master thesis: Bachelor

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