**INFLUENCE OF NITROGEN FERTILIZER ON YIELD AND QUALITY OF PASTURE SILAGE FOR MILK PRODUCTION**

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Nitrogen (N) fertilizer can be used on pasture in spring to increase silage yield (Morrison et al. 1983). The feeding value of N-fertilized silage fed with concentrates has been documented (Castle and Watson 1969). We investigated the effects of N fertilizer on silage yield and quality for milk production when it was fed as a supplement with pasture. Silage yield was increased by 30% \( (P<0.05) \). Control and N fertilized silages were fed ad libitum with limited pasture (50:50 DM basis) to cows in stalls during mid-late lactation.

Daily yields of milk, milk fat and milk protein did not differ significantly \( (P>0.05) \) between the two groups of cows. There were no differences between the two silages in dry matter digestibility or nitrogen content, but cow intakes of N-fertilized silage were higher \( (P<0.05) \). Rumen \( \text{NH}_3-N \) and plasma \( \text{urea-N} \) concentrations were similar for both silages.

The results indicate that N fertilizer gave higher yields of silage and did not depress the feeding value of pasture silage for milk production.

**EFFECT OF SOMATOSTATIN IMMUNITY ON THE GROWTH OF CROSSBRED LAMBS**

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Conflicting reports have suggested that somatostatin (SRIF)-immune lambs may express either a diminished (Varner et al. 1980) or an enhanced (Spencer and Garssen 1983) growth rate. Our study was undertaken to clarify possible reasons for these inconsistent effects. Second cross lambs (DH x BLM) were actively immunized (I) against SRIF using a SRIF:haemocyanin conjugate and Freund’s complete adjuvant (\( N=17 \)). Controls (C) (\( N=22 \)) were untreated lambs. Vaccinations were given (i.m., s.c.) during weeks 2, 7, 12 and 24 post partum. The SRIF-specific antibody response was measured using \( I\text{-TyrO-SRIF} \). Live weight was measured monthly and shoulder height on four occasions.

There was no detectable SRIF-specific primary antibody response. 50% of lambs responded to the week 7 boost. All vaccinated lambs had an antibody titre following the week 11 vaccination \( (\text{mean } 1:11300\pm3800) \). Live weights (kg) at birth \( (4.5\pm0.2 \text{ (I)} vs 4.4\pm0.1 \text{ (C)} \) and at mean age 133 days \( (41.5\pm1.1 \text{ (I)} vs 43.7\pm1.4 \text{ (C)} \) were not significantly different. Shoulder heights (mm) at birth \( (412\pm6 \text{ (I)} vs 412\pm5 \text{ (C)} \) and at mean age 133 days \( (579\pm4 \text{ (I)} vs 580\pm4 \text{ (C)} \) were not significantly different. There was no correlation between live weight \( (39.9\pm1.9 \text{ (i)} vs 43.0\pm0.9 \text{ (C)} \) and antibody titre when immune lambs were ranked into two populations of different \( (P<0.001) \) titre \( (11:3400\pm1222 \text{ vs } 1:40000\pm4000) \). We conclude that SRIF-immunity is unpromising as a method for stimulating the growth rate of crossbred lambs.

**REFERENCES**


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