THE EFFECT OF QUALITY AND PHYSICAL FORM OF ROUGHAGE ON THE PERFORMANCE OF CALVES FED ROUGHAGE-WHEAT DIETS IN A FEEDLOT

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Producers who are unable to finish calves due to declining pasture availability and decide to lotfeed may lack processing equipment. Although File (1976) showed that lotfed lambs performed equally with roughage fed long or milled, separate or mixed, no data are available for calves similarly fed.

Thirty-two Hereford and Hereford-cross calves (6 months; mean weight 150 kg) were fed, in groups of 4, diets of whole wheat and roughage (lucerne hay or wheat straw) ad lib. Roughage was fed long, separate from the grain or milled (25 mm screen) and mixed 20:80 with grain. Feed intake, liveweight gain, feed conversion ratio (FCR) and days to finish were measured. Finish was defined as minimum fat cover of 4 mm, measured by scanoprobe at the 12th/13th rib.

TABLE 1 Effect of roughage form and presentation on calf performance

	DM Intake (kg/hd/d)	LWG (kg/hd/d)	FCR (kg DM/kg LWG)	Days to Finish
Wheat and straw				
- long	$4.99^{a\#}$	0.88^{a}	5.70^{ab}	101.5^{b}
- milled	6.44^{bc}	0.84^{ab}	6.87^{b}	92.8^{a}
Wheat and lucerne				
- long	5.70^{ac}	1.17^{bc}	4.87^{a}	92.3^{a}
- milled	7.14^{b}	1.20^{c}	5.95^{ab}	82.3^{a}
S.E. of means	0.180	0.064	0.221	3.94
S.E. of diff. - form	*	N.S.	**	N.S.
- quality	***	***	*	*

N.S. = not significant; *P<0.05; **P<0.001; ***P<0.005.
#Means within columns with different superscripts differ (P<0.05).

Roughage quality increased intake, weight gain, FCR and days to finish. Milling roughage increased intake and FCR but did not affect daily gain or days to finish. Calves allowed free choice (long form) selected ratios similar to 20:80 (on a pen basis). There was no interaction between roughage quality and form.

Roughage quality has a greater influence on calf performance than processing; unavailability of processing equipment does not limit the finishing of calves in a feedlot.

REFERENCES

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