

268 Modifications of the in situ NDF N method. R. A. Mass, G. P. Lardy, and T. J. Klopfenstein, *University of Nebraska, Lincoln*.

An in situ NDF N method for measuring forage undegraded intake protein (UIP) has been validated. The objective was to determine if the standard procedure could be made more efficient. Four in situ experiments were conducted. Smooth bromegrass hay was incubated for 16 hours in all bags, and concentrations of NDF N in incubated samples were measured. It was concluded that none of the modifications had any effect ($P > .10$) on in situ NDFN digestion. These results indicate that up to 300 dacron bags can be incubated in situ at one time and NDF can be done directly on the bag in an automated system without influencing results. 96 hour incubations were done on the eight forages that were used in the NDF N validation study and UIP was recalculated after adjusting the degradable pool for that undegraded fraction (fraction C). The correlation coefficient for four of the samples to in vivo values was .64.

dacron bag size	10 x 20 cm (4.52)	5 x 20 cm (4.33)
mesh bag washing	15 min (4.31)	45 min (4.44)
dacron bag closure	stopper (4.23)	heat sealed (4.53)
mesh bag density	15 bags/bag (4.51)	60#bags/bag (4.25)
NDF method	beaker (4.53)	automated (4.22)
position in NDF rack	hi (4.44)	low (4.32)
time of NDF reflux	45 min (4.50)	70 min (4.41)
bag washing (post-NDF)	.5 L (4.44)	1.0 L (4.49)

*all values in parentheses are mg NDF N/ g of sample incubated

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