## ANSC 320 - Homework problem 12 Name Supplementation of Beef Cows

We have two batches of hay available for feeding our 1,200 lb beef cows this winter.

	Alfalfa/grass hay	Barley hay
	%, DM basis	%, DM basis
DM, %	90.0	92.0
CP, %	13.5	5.7
ADF, %	35.0	23.2
NDF, %	61.1	51.2

In addition, we have the following supplements available to use if necessary.

DM basis	Barley	Protein supplement
Crude protein, %	11.50	40.00
TDN, %	80.00	78.00

- 1. Calculate the TDN value of each of the hays.
- 2. Estimate the DM intake in pounds per day of each of these hays (from NDF).
- 3. For each of the hays, determine if the estimated intake will meet the TDN and CP requirements for the cows during late gestation (860 g CP, 5.4 kg TDN).

ANSC 320 - Homework problem 12 Name

4. If the requirements are not met, calculate which nutrient is first limiting, TDN or CP.

5. Indicate the appropriate supplement (if necessary) and the amount that should be fed for each of the hays to meet the requirements.