

Amount of Grain Fed Determined by Forages Fed to Dairy Dry Cows and Dairy Heifers



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With the amount of rain several parts of the state received this spring, testing forages for their nutrient content is more critical than ever. With harvest delays caused by this wet spring, the quality of the first cutting hay was greatly reduced. This lower quality hay most often gets fed to the older heifers and dry cows on a dairy farm. In order to optimize the growth of these heifers and maintain the body condition on the dry cows, this hay needs to be sampled and then allocated to various ages of heifers and dry cows based on its quality. Then, a grain mixture needs to be formulated to complement the hay being fed to these heifers or dry cows.

As shown in the following table, the quality of hay fed to heifers and dry cows affects the amount and protein content of the grain mix which should be fed. As the quality of the hay decreases, more grain with a higher crude protein content is needed to compensate for the reduction in forage quality. For a 600 lb Holstein heifer expected to gain 1.7 lbs/day, the crude protein content of the grain mix varies between 12 to 18 % with between 3 to 8 lbs of concentrate mix needed as the quality of grass hay moves from above average to below average. The same trends occur for a dry cow.

	Quality of grass hay as determined by forage analysis		
	Above Average	Average	Below Average
Forage Analysis			
Crude Protein (% dry matter)	14	11	8
TDN (% dry matter)	63	58	52
600 lb Holstein Heifers*			
Amount of Hay (lbs/day)	13	11	8
Amount of concentrate mix (lbs/day)	3.0	5.5	8.0
Crude protein content of concentrate mix (% as fed)	12	18	18
Dry cow - 1400 lbs Holstein*			
Amount of Hay (lbs/day)	26	24	20
Amount of concentrate mix (lbs/day)	2.0	4.0	8.0
Crude protein content of concentrate mix (% as fed)	7	16	20

*Rations shown here are for illustrative purposes only.

In order to effectively utilize the forages produced on the farm this year, hay needs to be tested as soon as possible so that a feeding plan can be designed to effectively utilize this forage. Often times, farmers discover too late that they fed the best quality hay to the oldest heifers and the youngest heifers received the poorest quality. Planning ahead now can help get the most out of your forage program.

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