



Dairy One

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To all of our valued customers, this is a test run of a new Dairy One e-newsletter. We plan to use this newsletter to keep you informed about new services and other timely information.

If you do not wish to receive these emails, please reply and type "remove my name" in the subject line. If you would like to add additional people, reply and type "Add new email address" in the subject line and include the new addresses in your message.

Our goal is to keep these newsletters brief and informative.

Digestible Starch

Effective 10/08/12, digestible starch is being introduced through our standard NIR packages (F321 & G322) for the following feeds: green chopped corn, corn silage, high moisture and dry shelled corn & ear corn, and snaplage. This value represents the rumen fermentable starch reported as a percent of the total starch.

Starch digestibility is affected by moisture, particle size, vitreousness and fermentation. There is no standardized procedure for the determination of digestible starch. Our calibrations are based on samples ground at 4mm and incubated in rumen fluid for 7 hours. We felt this procedure led to better differentiation of starch digestibility across the spectrum from low to high. Expected ranges are listed below and will also appear on your reports to aid in interpretation.

Table 1. Expected ranges for digestible starch

	Corn <u>Silage</u>	Hi-moist <u>Corn*</u>	Dry Corn <u>Grain</u>
High	> 88%	> 82%	> 68%
Medium	79 - 87%	62 - 81%	52 - 67%
Low	< 78%	< 61%	< 51%

* Unfermented green chopped whole plant corn and snaplage also fall in this category.

Results are best used to rank or qualify samples with respect to relative digestibility. For example, a corn silage sample that falls in the high range would best be fed along with dry shelled corn as opposed to high moisture corn to balance out the availability of starch in the rumen.

There is no set recommendation for ration digestible starch at this time. The following has been suggested and subject to change as more research becomes available:

Table 2. Feeding guidelines for digestible starch

<u>Group</u>	<u>Ration Starch % of DM</u>	<u>Digestible Starch % of Starch</u>
Early lactation	25 - 27	74
Peak lactation	26 - 28	83
Mid lactation	24 - 26	78
Late lactation	23 - 25	76

Remember, these are only guidelines. Practical experience in the field will best determine how to effectively utilize this information.

NPN

With changes regarding NPN in CNCPS based models, we've been asked to report ammonia as a percentage of the soluble protein. This will appear automatically on your reports when a sample receives both soluble protein and ammonia analyses.