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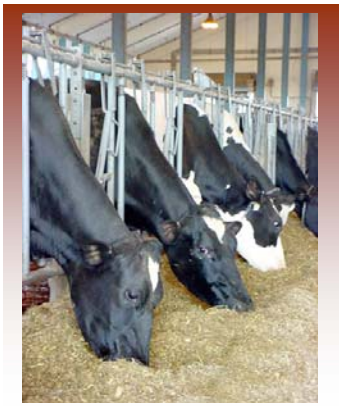
A Most Important Nutrient – I



Would you like young calves to grow faster just by providing and managing their drinking water? Dave Beede (Dept of Animal Science, MI State University) states that water is THE MOST IMPORTANT essential nutrient for dairy cattle of all ages, and offers some management tips to help ensure proper water nutrition and improve the growth of young calves.

During early life (e.g. day 1 through 3 weeks of age), Holstein calves typically consume about 1 gallon of water daily via milk or milk replacer. In addition, if given the opportunity they will consume 0.2 to 0.4 gallons per day of free-choice drinking water during the first three weeks, 0.8 to 1.0 gallons per day by 4 weeks, and an average of 1.5 to 2.0 gallons/day during the second month of life. Free-choice intakes increase dramatically as calves begin to consume larger and larger amounts of dry feed (e.g. calf starter or grower).

Research shows that when calves were given access to free-choice drinking water for the first month of life, along with a quality milk replacer and calf starter, starter intake increased by 46% and body weight gain by 61% compared with calves that were not offered free-choice drinking water – but supplied with the same amount of milk replacer and offered the same starter feed free-choice.

It is interesting to note that providing free-choice drinking water did not increase the incidence of scours (diarrhea), contrary to the assumptions of some calf feeders and dairy producers. Restriction of or the absence of free-choice drinking water in individual calf hutches or pens was found to be detrimental and even perilous in harsh environmental conditions such as times of high heat and humidity, when the demand for water can be critical.

Water intake during cold weather is equally as important as in hot weather. During cold weather the relative humidity is typically low so animals lose more moisture from their bodies during breathing. In cold weather, the lack of sufficient drinking water intake will limit starter feed intake. A common practice in some calf rearing operations is to provide warm drinking water. This is usually offered following each feeding of milk replacer and again in the middle of the day. This helps to increase free-choice water consumption and helps to improve feed intake and growth.

Furthermore, when water was restricted or not offered free-choice in an attempt to increase milk replacer intake, the strategy did not prove viable. Total dry matter intake (milk replacer plus starter intake) was greater for calves given free-choice drinking water when compared to those not offered drinking water. We'll cover more on this topic in the September newsletter.

(edited from Michigan Dairy Review, D.K. Beete, 2005)

INVEST IN FORAGES AT ENSILING –
Preservatives & Inoculants from Renaissance!

Understanding RFQ... (II)

It is important to know the quality of your forages *before* you feed them. Whether you feed corn silage, other ensiled forages or dry hay, forage quality will impact your herd's productivity and profitability.

The RFQ index provides information that can help your cows to perform. It is increasingly used to assess forage quality, compare forage varieties, and price forages. RFQ also helps us to better understand the differences in digestibility using the fiber fraction, more accurately predict animal performance, and better match animal needs.

Here are two tables to help us better understand the value of the RFQ indexing. Table 1 shows forage quality values from sample forages at different stages of growth, and Table 2 shows animals' forage quality needs by the RFQ index.

Forage Type	CP	ADF	NDF	RFV
	- % -			
Alfalfa – pre-bud	22	28	38	164
Alfalfa – bud stage	20	30	40	152
Alfalfa – full bloom	16	41	53	100
Alfalfa + grass	13	39	54	101
Bromegrass – late vegetative	10	35	63	91
Bromegrass – late bloom	7	49	81	58
Corn silage – well eared	10	28	48	133
Corn silage – few ears	8	30	83	115
Sorghum silage	8	32	52	114

Source: Durham (1998)

Relative Forage Quality	Suggested Cattle Type
100 - 200	Heifer – 18-24 months Dry cows
115-130	Heifer – 12-18 months Beef cow and calf Dairy – last 200 days
125-150	Heifer – 2-12 months Stocker cattle
140-160	Dairy – 1st three months of lactation

Source: Undersander (2003)

Ask your Renaissance representative for information.

(edited from EXTENSION EXTRA; South Dakota Extension Service; Jeranyama and Garcia; August 2004)

Renaissance ~
The Team for Results Year-Round!

Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows? Call me! My goal is to help you. That's Renaissance's commitment to you!

VOLUME 4 – Number 8 – August 2005

RENAISSANCE...
20 Years of Quality Nutrition & Service!

Planning ahead!

Some like it hot and some like it cold, but we have to take whatever comes with the change of seasons! And it's time to start thinking and planning for fall and winter. This includes the upcoming harvest, ensiling forages, considering use of a quality preservative/inoculant, ensuring sufficient forage inventories, adjusting feeding programs to accommodate new forages and much more.

I can help you to review and plan for the coming months, sampling forages and checking inventories, making strategic recommendations on goals and targets, along with necessary purchases that can help your farm to operate at an optimum level year-round. Plan ahead. Call today!

WHAT'S IT LIKE AROUND THE FARM?

What is an ideal length of cut for chopping corn silage? And does length of cut impact rations? There are several things to consider when it comes to best-length and maturity at cutting. First, the length of chop affects packing density and ultimately silage quality. The value of fine chopping increases as the crop advances in maturity and when moisture content drops between 60-65 percent. Silage (dairy) is often chopped at 3/8-to-1/2-inch theoretical cut. It is equally important that knives are kept sharp and properly set so that forage is cleanly chopped. If dull blades are used, especially with overly dry silage the results will be stringy and many large corncob pieces will remain. These factors may cause poor packing and reduce consumption rates. Knowing the ideal cut-length and maintaining equipment is critical to the quality of your silage, and ultimately to the health and productivity of your cows. Get the facts. Talk with me about maximizing this year's harvest and having a positive impact on rations throughout the fall and winter months. You and your cows will appreciate the difference.

A POINT TO PONDER...

The world is an ever-changing scene, with each and every day bringing new challenges and opportunities… good times and bad… changes for the better and sometime just the opposite. Change is something few of us enjoy and can do almost nothing about. Yet, change is inevitable. We need to realize and appreciate the moments of this day, along with the blessings we continue to enjoy. When change comes, or when events around us cause us to question and to be concerned – take time to appreciate those special things around you such as family, friends, church and community, and so much more!

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Considering the harvest...
Preserving forages...
Planning ahead!

Check it out.