Dairy One News from Dairy One - Where Information Creates Opportunity.
November 1994, No. 19
Forage Laboratory

You, Northeast DHIA and the US Mail – We have been experiencing a lot of difficulty over the last year with the US Post Office. Timeliness of service continues to dwindle. It appears that even though we are paying for first class postage, our forage kits are being treated like second class citizens. This is a huge problem, given that you count on the post office to deliver your samples on a timely basis.

We are investigating alternative mailers in the hopes of improving ease and speed of handling. In the meantime, if you are having problems, one suggestion that you might try is folding the envelope over and taping it to the bag. Make sure that the address is showing on the envelope. Hopefully, this will make it easier for the Post Office to handle.

1994 Corn Silage – A warm summer and a good amount of rain led to an excellent year for corn. In addition, a dry Fall promoted optimum harvest conditions and reports from the field indicate better than average yields.

However, from a quality standpoint, we have noticed some unexpected results. About 10 - 15% of the corn silage samples are running low in protein (5 - 6% CP). Visually, samples appear normal, but are not testing as well as expected. Fiber values appear to be unaffected, with ADF running in the 25 - 30% range and NDF 42 - 50%.

In our quest for an explanation, we have made several inquiries to professionals in the field. One possible theory was brought forth by Ev Thomas of the Miner Institute in Chazy, NY. Ev's theory centers around the conditions created last winter. Snow arrived early and stayed late. Our first snow arrived on Halloween and never really left. This insulating blanket was perfect for alfalfa but as a consequence, the ground never really froze. Pre-side dress nitrate tests (PSNT) that showed adequate nitrogen levels in the fall were coming up short in the spring. There was also very little ponding of water in the fields in spring as the snow gradually melted. Instead of water pooling and running off, it seeped through the soil. Ev theorizes that because the soil did not freeze this winter, as spring arrived and the snow gradually melted, a lot of the nitrogen leached down through the soil resulting in the low PSNT readings in spring. Thus, producers who thought that they applied adequate manure and nitrogen in the fall and neglected to test in the spring, may actually have had fields that were nitrogen deficient. Ev did note that they did apply nitrogen in the spring as a result of the PSNT tests and their corn tested above 8% CP.

Remind you, this is only a theory, but one that deserves serious thought and consideration. Think about it. If you have any idea what could be contributing to the low CP in the corn silage, we'd appreciate hearing your thoughts.

Energizing Brewers Grains – NRC energy values for brewers grains have always been listed on our reports as 66% TDN and .68 NEI (Mcal/lb). Work by Rodney Preston several years ago at Texas Tech, suggested that the energy value of Brewers grains was greater than reported.

This summer we conducted a trial with Miracle/McNess Feeds to evaluate the energy status of brewers grains. To do this, we analyzed several samples from different breweries and used the Ohio State energy equation developed by Bill Weiss to predict the energy. It is a summative equation using multiple nutrient components. Listed in Table 1. are the results for the 16 samples that were run along with the average and standard deviation.

Based on this data, we will now begin reporting the energy of brewers as 71% TDN, .74 Mcal/lb NEI. We feel these are improved energy estimates. We would appreciate your feedback.

TABLE 1. Predicted energy values (DM Basis) for wet brewers grains using the OSU equation.

	TDN. %	NEI. Mcal/lb
	72	0.75
	75	0.77
	73	0.75
	72	0.74
	74	0.77
	71	0.73
	69	0.71
	71	0.74
	72	0.75
	73	0.76
	73	0.75
	73	0.76
	67	0.69
	65	0.67
	71	0.73
	71	0.74
AVG.	71	0.74
SD	2.3	0.03

Use these values for ration balancing and let us know how they are working. Thanks and credit goes to Mark Wagner from Miracle-McNess for initiating this study.

Summary Statisitcs for '94 – the accompanying table is a summary of statistics for NY State for all samples analyzed during the month of October.

Our grand summary listing statistics for a wide variety of forages, grains and byproducts is now available. You may receive a copy by completing and returning the form on the back page.

Mycotoxins - An analysis is only as good as the sample submitted. In addition, a mycotoxin analysis requires a larger sample than normal. Be sure to send at least 1.5 - 2 lbs. of sample.

Personal Bests – the Northeast DHIA fiscal year runs from September 1st to August 31st. Having recently completed fiscal '94, the lab finished with a total sample volume of 88,477 and an average monthly in-house turnaround time of 1.7 days. As you can see, once a sample arrives at the lab, it very quickly gets processed. Our greatest obstacle lately seems to be getting it to the lab. We know how important your results are to you. We recommend using the quickest delivery service available to you. Any one of the express carriers (UPS, Federal Express, etc.) offers good 2 day delivery rates. We suggest this over the Post Office. The timeliness of their service appears to be continually dwindling.

The week of 10/17/94 established another forage lab milestone. The fall is always our busiest time of the year and during that week we processed 3,142 samples. This beat the old weekly volume record of 3,006 samples set during November of last year. Congratulations to the staff for doing a terrific job of getting your samples processed.

OCTOBER 1994 NEW YORK FORAGE CROP SUMMARY - No. 1

The averages are from analysis performed on NY State forages by the Northeast DHIA Forage Testing Lab during October of 1994. It is assumed that the majority of samples were harvested this year. The range is defined as the average ± one standard deviation, then rounded to the nearest whole number in most instances.

NUTRIENT ANALYSES (DM BASIS)

Forage Type	DM%	CP%	SP% *	ADF%	NDF%	NSC%	NEI% **	Ca%	P%
Legume Hay	90.7	18.5	35	34.6	45.0	24	.62	1.33	.26
(Range)		(16-21)	(29-41)	(30-39)	(38-52)	(19-30)	(.56-.67)	(1.09-1.57)	(.22-.29)
MML Hay	90.6	16.1	30	37.4	52.3	21	.55	1.11	.25
		(13-19)	(25-36)	(33-42)	(45-59)	(15-26)	(.50-.61)	(.85-1.36)	(.21-.30)
MMG Hay	91.5	12.1	27	39.9	61.6	16	.52	.72	.23
		(9-15)	(21-32)	(35-44)	(55-68)	(11-21)	(.47-.58)	(.46-.97)	(.19-.28)
Grass Hay	91.7	11.1	27	39.4	62.1	17	.49	.60	.23
		(8-14)	(22-32)	(35-43)	(56-68)	(13-22)	(.43-.56)	(.39-.81)	(.18-.27)
Legume Haylage	39.0	19.4	59	35.2	44.6	24	.61	1.29	.31
	(29-49)	(16-22)	(49-69)	(31-39)	(39-51)	(20-29)	(.57-.66)	(1.07-1.51)	(.26-.35)
MML Haylage	38.6	17.7	54	36.1	48.1	24	.57	1.17	.30
	(29-48)	(14-21)	(43-65)	(31-41)	(41-55)	(19-29)	(.51-.63)	(.95-1.40)	(.25-.34)
MMG Haylage	37.7	14.3	46	37.6	55.1	21	.55	.92	.28
	(27-48)	(11-18)	(33-59)	(32-43)	(48-63)	(17-26)	(.49-.61)	(.68-1.15)	(.23-.34)
Grass Haylage	37.3	12.7	44	37.8	58.2	21	.52	.79	.28
	(26-48)	(9-16)	(31-57)	(33-42)	(51-65)	(16-25)	(.45-.59)	(.54-1.03)	(.23-.34)
Corn Silage	32.0	7.9	39	25.0	45.5	38	.74	.24	.22
	(26-38)	(7-9)	(28-49)	(21-29)	(40-52)	(32-44)	(.71-.77)	(.19-.30)	(.18-.25)

* SP = soluble protein reported as a percentage of the crude protein
** NEI = Mcal/lb