

Quality Variations Can Exist In Purchased Hay

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With the drought this past summer, Pennsylvania farmers are purchasing an unusual amount of hay from other states.

Recently I have been receiving reports about hay that was sold over the phone or Internet as a certain quality, but farmers didn't test that quality when it was delivered. Assuming that the hay seller is trustworthy, then how can these differences occur?

More than likely because the sample submitted to the forage lab by the seller and the buyer were not the same! Since sample collection is highly variability (higher standard error), it is the limiting factor in the ability any lab to produce identical quality results for samples collected from the same load of hay (Table 1).

The highest level of accuracy we can expect from a single sample is plus or minus 1.58, 2.45, and 4.25 percentage units for CP, ADF, and NDF, respectively. This degree of accuracy is due to the inability to obtain a sample that truly represents the load of hay that the sample is collected from.

The large variations associated with sample collection can be the result of too few cores, by either the seller or buyer, being taken to produce a representative sample (Table 2). In general, 5 cores for every ton of hay on the truck load should be collected with and minimum of 10 cores per load. Note that just taking the second core sample nearly doubles the accuracy in measuring CP, ADF, and NDF.

Table 2. Variation (standard error) in quality of 2 ton hay loads based on number of cores taken.

# Cores	Crude Protein	ADF	NDF
1	1.6	2.5	4.3
2	0.8	1.2	2.1
10	0.6	1.0	1.6
15	0.5	0.9	1.4
20	0.5	0.8	1.3

Another possible reason for the variations associated with sample collection is that different coring devices maybe used by the seller and buyer. Differences in a coring device's ability to representatively collect both leaves and stem can add to the variability in quality results.

So how can forage quality results be different for the same

truckload of hay? More than likely because the samples collected from the load were not the same!

Since variability of sample collection is so much higher than variability of forage quality labs (Table 3), sample collection is the limiting factor in the ability any lab to produce identical quality results for samples collected from the same load of hay. Improving the precision of lab analysis is mainly

Table 3 Laboratory variability (standard error) associated with forage quality analysis

Quality factor	Standard error
Crude protein	0.53
Acid detergent fiber	0.73
Neutral detergent fiber	0.85

Slayton Named Pa. Beef Council Executive Director

MIDDLETOWN (Dauphin Co.) — A nationally recognized cattle producer has been named executive director of the Pennsylvania Beef Council. Paul Slayton, a Bedford County cattle breeder, producer and judge assumed executive director responsibilities earlier this month.

Slayton brings a wide variety of experiences to the post. He is a producer of national and regional cattle champions, livestock judge for national and regional competitions, and was a manager of an international breed journal and worked in a number of support positions for producers and breed organizers.

He has owned and operated Slayton's Beardance, a purebred Angus and Polled Hereford beef cattle operation near Bedford for

the past decade. Slayton will continue his involvement with the 260-acre grassland farm on a part-time basis.

"The opportunity to help promote our industry through the Beef Council is an exciting challenge," Slayton said. "The Council is a unique organization — one that is producer directed but consumer focused. We have the ability to help producers meet consumer needs and help consumers learn more about our great product. I'm looking forward to working with all sides of the industry."

The Pennsylvania Beef Council is supported by the national \$1 per-head beef check off and seeks to build demand for beef through promotion, research and education.

Table 1 Variation (standard error) associated with sample collection

Quality factor	Standard error
Crude protein	1.58
Acid detergent fiber	2.45
Neutral detergent fiber	4.25

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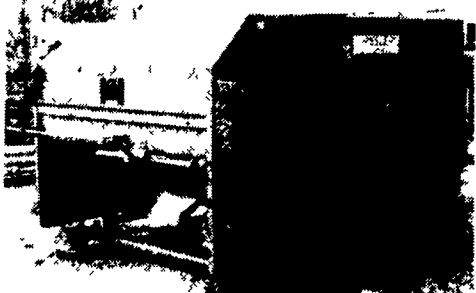
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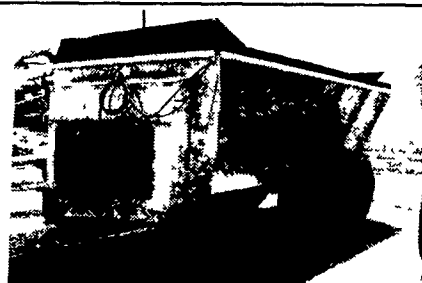
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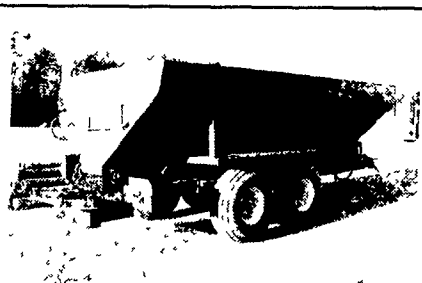
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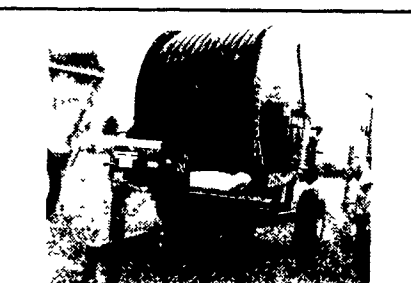
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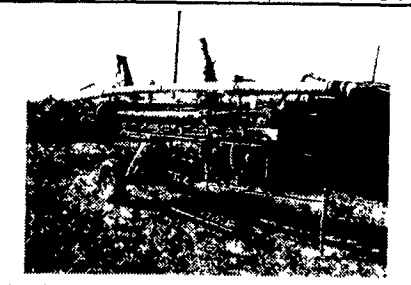
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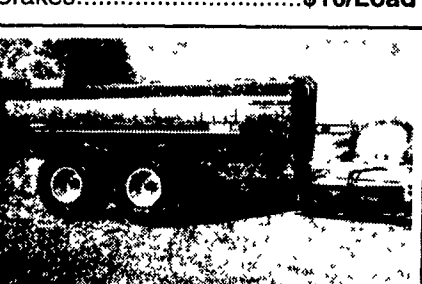
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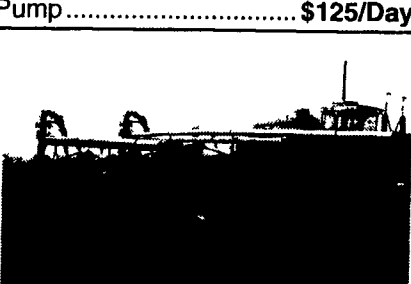
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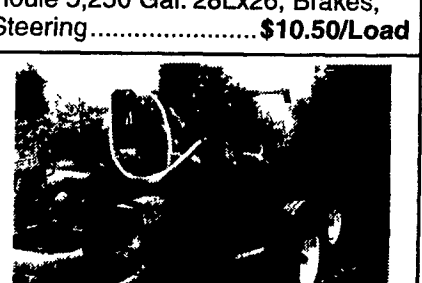
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