

The Dairy Business

By Newton Bair

Dry Matter And Other Matters

Every nutritionist worth his salt will calculate your rations on a dry matter basis. Why? Because so much of the ordinary feeds like silage, haylage, pasture, and even the so-called "dry" feeds contain more water and therefore less actual feed nutrients than we can visualize. The only way to figure feed value is to first convert these feeds to their dry matter content.

Most of us rely on a very infrequent forage tests to get a fix on the moisture content of silage and haylage. Unfortunately, while the reading may be accurate when taken, it is not taken often enough during the feeding season to be accurate at all times. We often have to guess at the magnitude of the change that occurs as silage is fed, or risk mistakes in the ration. There are ways of removing the risk, by taking a moisture check at more frequent intervals.

There are all kinds of moisture testers on the market. The newer electronic testers are easy to use, but still rather expensive. They can be used right in the field, to test silage, hay, and grain for moisture. One of the more accurate testers, the Koster Tester, is rather cumbersome and takes at least a half-hour to run a sample.

At harvest time that may be too long to be practical, because while the test is running, the crop moisture may be changing rapidly. We may have to rely on good judgment at harvest time, and get more accurate readings when it comes out of the silo, after the moisture in a given sample is stabilized.

Use The Microwave To Check Moisture

The microwave oven in the kitchen is an ideal, quick and easy

tool to measure the moisture content of almost anything. Here are the steps:

1. With an accurate scale weighing in grams, a dietetic scale will do, weigh an empty paper bag to the nearest gram. Record as value A.

2. Put about a cupful of material in the bag, pack it and weigh. Record the total weight as value B.

3. With an 8-ounce glass about three-fourths full of water in the oven, dry the sample, using a medium heat setting. Start with about two or three minutes of drying time. Remove and stir or shake the sample three or four times at one minute intervals, until the sample is crisp, but not charred. When sample is uniformly stable in weight, weigh the bag and sample and record as value C.

4. Calculate the moisture content as follows: $(B - C)/(B - A) \times 100 =$ percent moisture. Here is an example:

Paper bag weighs 10 grams, value A = 10. Bag and sample weighs 90 grams, value B = 90. Dried sample plus bag weighs 40 grams, value C = 40.

$(90 - 40)/(90 - 10) \times 100 = 62.5$ percent moisture. This is the moisture percentage to be used in ration balancing.

Be careful not to lose any material when shaking or stirring. If microwave does not have a table, turn the sample each time it is heated. Avoid burning the sample. A little experimentation with samples will increase your accuracy, and decrease the time needed to run a given sample.

More details on this method can be found in the August issue of Hay and Forage Grower, 199 Shepard Road, St. Paul, MN 55116, one of

Haupt Is 'Conservationist Of The Month'

SUNBURY - James Haupt, a Shamokin Township farmer, has been selected as Conservationist of the Month for September by the board of directors of the Northumberland County Conservation District. The announcement was made by Robert Pardoe, Jr., district chairman.

Haupt, 48, is being honored for his efforts in developing and implementing a soil conservation plan on his Irish Valley farm. He recently installed two cropland terraces and one storage terrace, totaling nearly one-half mile in length. Haupt also plants all of his crops on the contour to prevent soil erosion.

"I constructed the cropland terraces with my own moldboard plow," said Haupt, adding that terraces are usually constructed with bulldozers or graders. "I can save a lot of money that way. It's good, cost-effective conservation," said Haupt.

Cropland terraces are small earthen embankments that are constructed across the slope of the land. Terraces prevent soil erosion by catching runoff water and channeling it across the slope to a

better free magazines that fill my mailbox. Most extension offices also have instruction sheets on how to use the microwave oven to determine moisture.

What do you do with the new moisture reading? Why, give it to your dairy nutritionist immediately, so he can incorporate it into your up-to-date rations. Meanwhile, use it to sharpen your judgment on the value of feeding your animals on the basis of dry matter content, not just wet-weight.

Oh yes - get permission from the cook before using the kitchen for a feed laboratory!

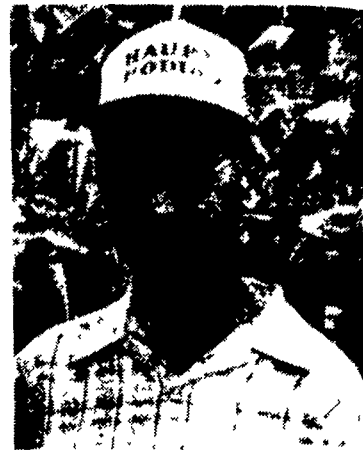
safe outlet, usually a sod waterway.

Haupt plans to construct eight more terraces during the next five years. "We're a long way from being done," he said. "But we plan to continue working until the whole farm meets all the soil conservation standards."

The biggest incentive to continue installing conservation practices is the increase in yields, according to Haupt. "Conservation definitely pays for itself," said Haupt. "Contour farming and terraces not only keep soil from washing away, they also improve soil moisture by reducing runoff. The yields have really increased on some of my fields because there's more water available to the plants."

Haupt also plants winter cover crops to protect his soil. "Last year, I planted about 65 acres of rye and 30 acres of hairy vetch for cover crops," said Haupt. "The cover crops keep the ground from washing away in winter and also add organic matter to the soil. The organic matter improves the structure of the soil and increases yields, so you really can't lose." The hairy vetch also adds up to 100 pounds of nitrogen per acre to the soil. "It helps me save on my fertilizer bill," said Haupt.

Haupt is a third-generation truck crop farmer. He grows a variety of vegetables including tomatoes,



James Haupt

potatoes, peppers, sweet corn, pumpkins, squash, watermelon, cantaloupe, strawberries, broccoli, and cabbage. Haupt also has about 1,500 hens for egg production. Most of the produce is sold at farmers markets in Lewisburg, Sunbury, Shamokin, and Schuylkill Haven.

"It's a family operation and we all work hard," said Haupt. Haupt is assisted on the farm by his wife, Janie, and his son, Willie. "During the growing season we work up to 14 hours a day, seven days a week," said Haupt. Despite the rigors of farm life, Haupt enjoys his work. "I really enjoy meeting all the people at market," said Haupt.

Hostetler Elected President

SOUTHAMPTON - Paul Hostetler, Westover, Md., was elected president of the Princess Anne Local of Inter-State Milk Producers' Cooperative District 4.

Hostetler, former vice president of the Princess Anne Local, is in partnership with his father, Harold. The pair farm 200 acres

and milk 45 Holsteins. The Hostetlers have been Inter-State members since 1948.

Other officers elected at the Sept. 5 meeting were Kenneth Holland, Pocomoke City, Md., vice president, and Edward Johnson, Westover, Md., secretary/treasurer.



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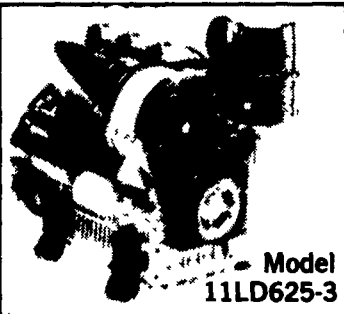
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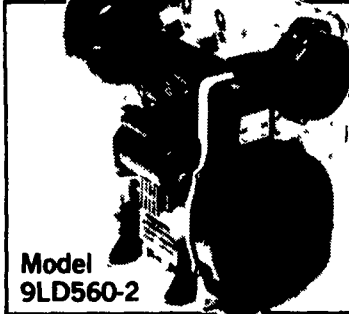
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