

Grazing Gazette



PENNSTATE
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PASTURE DRY MATTER INTAKE — SHOULD YOU MEASURE IT?

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There is no question that in any grazing system with any species of animal, the amount of total dry matter that animal consumes each day will have a large impact on performance.

Dry matter intake (DMI) drives gain in growing animals and milk yield in lactating animals. Without adequate DMI, animals can lose body condition, grow at less than optimal rates, and cost you more to keep and maintain than well fed animals.

Total DMI in all types of feeding systems varies with the size, age and nutrient requirements of the animal, environmental conditions (temperature, humidity, etc.), and amount, type, palatability, and availability of feed. Grazing systems can introduce more variation in DMI because of changes in pasture availability and

different rates of substitution of pasture for other feeds. It is easy to see how much feed is left in a bunk and if cows can reach the feed, it is not always so easy (especially for a less experienced grazer) to determine how much available feed there is in a particular paddock.

There is no question that both total and pasture DMI can vary and that DMI is important for animal performance. But should you measure how much DM animals consume for your particular grazing system?

In New Zealand, producers routinely estimate pasture cover (indirectly they are estimating DMI) and use that information for feed budgeting. Dairy nutritionists estimate DMI from pasture and use that information for ration formulation. Periodically on Graze-L (see note below), the discussion of estimating pasture DMI comes up and ideas are offered by producers, scientists, and others. Some producers have shared their ideas

about estimating pasture DMI.

Estimating pasture DMI can be done in a "quick and dirty" way or can be done more accurately if you want to take the time. Estimating pasture DMI means gauging how much dry matter is in a paddock before and after cows graze. Amount before, minus amount after, divided by number of cows, is DMI per cow. There is roughly about 300 pounds of DM per acre in each inch of standing forage (Note: This is a very rough estimate.) So, for an acre paddock with 6 inches of pasture that 50 cows graze for a day and leave at 3 inches: (6 inches x 300 pounds/inch = 1800 pounds - (3 inches x 300 pounds/inch = 900 pounds.)

Therefore, 1,800 pounds DM available - 900 pounds DM residual = 900 pounds DMI/50 cows = 18 pounds DM/cow/day. You can make the height measurements with a yardstick or estimate on your boot as you are walking.

There are also other more accurate ways of estimating herbage in a paddock. Electronic probes are available, and less expensive rising plate meters can be purchased or made at home. It is important that these devices be calibrated by cutting, drying and weighing herbage, to be accurate for your geographic area. Estimates of pasture DMI will likely not ever be as accurate as using a set of scales and before and after weights on

feed, it is possible to obtain relatively reliable estimates — if you are willing to take the time.

There is no question that there are relatively accurate ways to estimate pasture DMI, but should you measure how much DM animals consume for your particular grazing system?

Estimating and recording pasture DMI for your grazing system will provide information for making decisions — when to move animals, when to provide supplement, etc. Estimating DMI on a particular paddock provides information about both plants and animals in the system.

Good grazing management requires managing both plants and animals together. Changes in pasture availability, signaled by changes in DMI, will occur with season and with changes in weather.

Short-term grazing decisions must be made daily and weekly, either with information or simply "by eye." Having estimates of pasture DMI can be useful in making grazing management decisions, even for the experienced eye.

Collecting farm data (animal and crop production, financial,

etc.) either yourself or by hiring others for their services is part of managing a farm business. Some data is collected because it is needed by someone off the farm, and some is collected because it is important. Written records can help to manage the day-to-day operation of the farm as well as to help the manager make long-term decisions.

Estimating pasture DMI is collecting data. Is that data important? Yes. Can you collect that data easily? Yes. Do you need to collect that data? Only if you will use it.

If developing a routine to make and record estimates of pasture DMI will help you to make better grazing management decisions, then the time to make those estimates is well spent.

Authors Note: Graze L is an electronic discussion list on Internet.

Grazing Calendar

- July 11, Pasture Walk, Northumberland Co. (717-784-6660)
- July 13, Pasture Walk, Franklin Co. (717-352-8676)
- July 27, Pasture Walk, Franklin Co. (717-352-8676)
- March 6 and 7, PA Grazing Conference, Carlisle, PA

Annual Composting Forum July 11

UNIVERSITY PARK (Centre Co.) — The Pennsylvania Composting Association (PACA) will hold its second annual forum on Tuesday, July 11, at the Doubletree Club Hotel in Middletown.

Daniel J. Eichenlaub, president of PACA, will give the welcoming address. William Ginn, president of the state's Composting Council, will deliver the keynote address, which will focus on critical issues in successful composting.

Providing updates on government affairs will be Charles Brosius, state secretary of agriculture; Tom Woy, of the Department of

Environment Resources; John Lake, of the Pennsylvania Department of Agriculture; and Ann Carkhuff, of the U.S. Environmental Protection Agency.

The registration fee is \$40 per person and includes tuition, refreshments and lunch.

For more information, contact the Commercial Composting Forum, The Pennsylvania State University, 306 Ag Administration Building, University Park, PA 16802-8301, phone (814) 865-8301, FAX (814) 865-7050, TDD (814) 865-1204.

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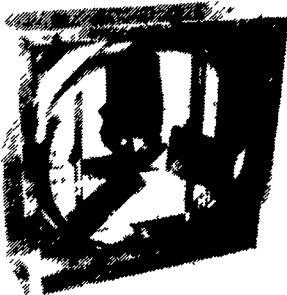
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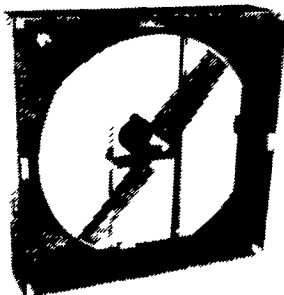
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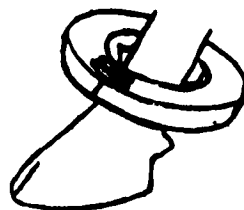
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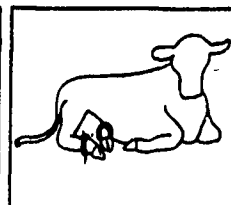
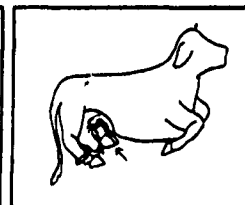
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