



Northeast Organic Farming Association of Vermont

An organization of farmers, gardeners, and consumers working to promote an economically viable and ecologically sound Vermont food system

Measuring 30% DM from Pasture

By Lisa McCrory – NOFA-VT

Current USDA National Organic Program Regulations require access to pasture for all ruminant animals [§205.237, §205.239] (*see end of article for exact wording*). USDA Accredited certifiers have been enforcing this standard since the inception of the program in 2002. The current rule, however, lacks measurable standards and has led the USDA /NOP to say that the current standard is unenforceable and as a result, organic dairy farms are not being treated equally. Producers and consumers alike have not been happy about the lack of enforceable standards. Knowing that there are organic dairies selling milk as organic and *not* using pasture sends a confusing message to consumers and threatens the health and potential growth of the organic dairy industry.

In April 2006, USDA/NOP invited producers, certifiers, resource individuals and industry representatives to participate in a pasture symposium. This meeting was intended to assist the USDA/NOP in understanding the importance of pasture on organic farms and to develop standards for pasture that were reasonable and enforceable within an organic system plan.

At that meeting, the majority of the certifiers and farmers agreed that specific and quantifiable pasture standards were necessary and could easily be documented using current record-keeping regimes of certified organic livestock farmers. The following standard has been approved by producer organizations, advocacy groups, processors and certifiers throughout the united states: **“Ruminant livestock must graze pasture for the growing season but not less than 120 days per year. The grazed pasture must provide a significant portion of the total feed requirement but not less than 30% of the dry matter intake on an average daily basis during the growing season.”** This wording was also voted on and approved by the NOSB in 2005 as a guidance document for certifiers.

Because a measurable higher standard has not yet been adopted by the NOP, Organic Valley/CROPP has developed higher standards, which were voted and approved by their producer members. Organic Valley is now requiring that the producer’s farm plan includes a provision that “ruminant animals over 6 months of age receive a ... minimum of 30% of their dry matter intake from pasture for a minimum of 120 days per year”.

In anticipation of a measurable pasture standard, Vermont Organic Farmers (VOF), the certification arm of NOFA-VT, and NOFA-NY Certified Organic LLC have included a section in their application forms that allows a producer to evaluate their pasture use. These forms help the certifier and the producer determine if the NOSB recommendation of 30% dry matter and 120 days is being met. If a producer is not meeting the 30% minimum requirement, they are asked to justify their management and in some cases to increase their pasture acreage.



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Other Northeast certifiers (MOFGA Certification Services LLC, Baystate Certifiers, Pennsylvania Certified Organic) do not provide any record keeping forms that evaluate dry matter intake from pasture at this time. Don Franczyk of Bay State Certifiers said that they are taking the ‘wait and see’ approach; when the NOP presents their proposed standard, they will move forward with the necessary paperwork for documentation. At this time, Bay State Certifiers has 6 certified dairies in Massachusetts and Connecticut, 4 of which are practically 100% grass-fed. MOFGA Certification Services and PCO work with their producers if they see that the producer is clearly limited in pasture for the size of their herd. They make it clear that if the NOP rule implements measurable pasture requirements, their continued certification may be in jeopardy. When writing non-compliance notices to producers, MOFGA Certification Services cites the definition for pasture included in the rule which states that “pasture must provide food value and that natural resources must be maintained or improved”. Certifiers have a long history with using feed calculations to red-flag potential compliance issues. For example, the 80/20 feed exemption, when calculated on an as fed basis, was based on certain assumptions about the weight of hay bales. It is also a requirement for producers to provide information on feed harvested for each production year. Certifiers must be aware that a margin of error exists in all of these calculations and realize that their best use is determining which producers need additional evaluation.

Producers are required, by any certifier, to submit an Organic Farm Plan that demonstrates how they are building soil fertility, preventing soil degradation/erosion, a description of their out-door access practices, and where their feed is coming from. From these requirements, a system is already in place to calculate intake from pasture. Pasture intake information can be determined by ‘back-calculation’ or by providing a ration plan for the herd during the grazing months.

To back-calculate, one compares what is fed in winter, to what is fed in the summer. The total dry matter is determined from both rations; then the summer ration is subtracted from the winter ration. The difference between those two rations would be the amount being provided from pasture. Divide the dry matter value of the pasture into the dry matter value of the winter ration and you will get your pasture %.

Example:

100 milking cows weighing an average of 1100 each. Average milk production per cow is 50 lbs/cow.

Winter ration:

50 # Haylage (40% dry matter) = 20 lbs dry matter
5 # dry hay (90% dry matter) = 4.5 lbs dry matter
15 # grain (90% dry matter) = 13.5 lbs dry matter
Total Dry Matter = 38 lbs

Summer ration:

12 # grain (90% dry matter) = 10.8 lbs dry matter
4 # dry hay (90% dry matter) = 3.6 lbs dry matter
Total Dry Matter = 14.4 lbs

Winter Ration (38) – Summer Ration (14.4) = 23.6 lbs dry matter remaining = pasture portion of the ration

To determine the % Dry Matter from Pasture: 23.6 divided by 38 = **62% of the daily ration = pasture.**

To calculate the ration based upon the dry matter needs of your cows, you can also forward calculate. Dairy cattle consume approximately 3.5 % of their body weight in dry matter intake daily. Total dry matter intake can vary slightly based upon the breed and the total pounds of milk produced, but these average values will help producers and certifiers identify those farms that are close to the minimum allowances.

Example 1: a herd of 100 Jerseys weighing an average of 950 lbs each. They each need approximately 33.25 lbs dry matter per cow per day ($950 \times .035 = 33.25$ lbs). The cows are fed 12# of grain per day (90% dry matter) and 4 # of dry hay (90% dry matter) per day to complement their pasture.

Expected dry matter intake per cow:	33.25 lbs
- minus dry matter intake from grain	-10.8 lbs
- minus dry matter intake from hay	- 3.6
Total dry matter from pasture	= 18.85 lbs

To determine the % dry matter from pasture: 18.85 divided by 33.25 = **57% of the daily ration = pasture**

For those producers who still like to supplement their pasture with a TMR ration, here is another calculation.

Example 2: a herd of 60 cows weighing an average of 1300 lbs. They each need approximately 45.5 lbs of dry matter per day ($1300 \times .035 = 45.5$ lbs). The cows are fed a TMR ration that includes 40 lbs of haylage/corn silage (40% dry matter) and 14 lbs of grain (90% dry matter).

Expected dry matter intake per cow:	45.5 lbs
-minus dry matter intake from grain	-12.6
-minus dry matter intake from silage	- 16.0
Total dry matter from pasture	= 16.9 lbs

To determine the % dry matter from pasture: 16.9 divided by 45.5 = **37% of the daily ration = pasture**

Whether or not your certifier or processor is asking you for a pasture dry matter calculation, I recommend you work on making these determinations for your farm. Work with your nutritionist, ask your local Extension agent to help you, or contact your local organic dairy technical outreach person available through MOFGA, NOFA-VT, NOFA-NY, PCO, NOFA-Mass and NOFA-NH. It is best to know where you stand now so that you can start planning for any adjustments that may need to be implemented within the next year or so (optimistic, aren't I?). I am sure most dairy graziers will find that they are well over the 30% minimum standard, so don't be intimidated by doing the calculations for your farm; I am sure you will be pleasantly surprised.

CURRENT REGULATION AND DEFINITION:

Definition of pasture as written by the NOP in the definition section of the rule: Land used for livestock grazing that is managed to provide feed value and maintain or improve soil, water, and vegetative resources.

205.238 Livestock Health Care Standards

(a)(3) *Establishment of appropriate housing, pasture conditions, and sanitation practices to minimize the occurrence and spread of diseases and parasites;*

§ 205.237 Livestock feed. --

- (a) *The producer of an organic livestock operation must provide livestock with a total feed ration composed of agricultural products, including pasture and forage, that are organically produced and, if applicable, organically handled:*

§ 205.239 Livestock living conditions.

(a) *The producer of an organic livestock operation must establish and maintain livestock living conditions which accommodate the health and natural behavior of animals, including:*

- (1) *Access to the outdoors, shade, shelter, exercise areas, fresh air, and direct sunlight suitable to the species, its stage of production, the climate, and the environment;*
- (2) *Access to pasture for ruminants;*

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