



The Fenceline

Matt Booher Extension Agent, Agriculture and Natural Resources Crop & Soil Sciences

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Understand Herbicide Grazing & Haying Restrictions

Some of the herbicides we use in hay and pasture have restrictions outlined on the label for how soon treated areas can be grazed or hayed. As you can see from Table 1, the reason is primarily to safeguard the food chain. Many people assume grazing restrictions exist for all livestock, but this is not the case; the herbicides labeled for hay and pasture are relatively non-toxic, especially when used at labeled rates. The following information is from Virginia Tech's 2020 'Pest Management Guide'.

Trade name	Type of animal	Required days between application & grazing	Required days between application & haying	Slaughter restrictions
2,4-D amine or ester	lactating dairy	7	7	Remove meat animals 3
	other	0	7	days before slaughter
Cimarron Plus	all	0	0	No restrictions
Clarity/Banvel	lactating dairy	7-40 (rate dependent)	37-70 (rate dependent)	Remove meat animals 30
	other	0	7	days before slaughter
Chaparral	all	0	0	No restrictions
Crossbow	lactating dairy	next season	14	Remove meat animals 3
	other	0	14	days before slaughter
Milestone	all	0	0	No restrictions
PastureGard HL	all	0	14	Remove meat animals 3 days before slaughter
GrazonNext HL	all	0	7	No restrictions
Remedy Ultra	lactating dairy	next season	next season	Remove meat animals 3
	other	0	0	days before slaughter
Surmount	lactating dairy	14	14	Remove meat animals 3
	other	0	0	days before slaughter
Weedmaster	lactating dairy	7	37	Remove meat animals 3
	other	0	37	days before slaughter

Table 1. Grazing and haying restrictions for common broadleaf herbicides

Estimating Available Nitrogen in Poultry Litter

If you use poultry litter as a nutrient source, its important that you be able to estimate how much of the nitrogen (N) contained in litter is available directly to a crop, and how much is released gradually over time. This is especially important with grass pasture and hay, as we seek to correctly match the amount and timing of the crop's nitrogen demand in the immediate future, and to estimate what is leftover from past applications. As an example, the following illustration show the typical nitrogen release for applied poultry litter, using state-wide average values for dry broiler litter.

Dry Broiler Litter Nitrogen -------Analysis------Total-N: 65 lbs/ton NH₄-N: 12 lbs/ton Organic-N: 53 lbs/ton <u>Immediately available</u> 12 lbs/ton The ammonium (NH_4) portion of litter is unbound and immediately available. However, surface applied litter or litter applied out-of-season may lose much of its available-N to the environment.

<u>Released during the first month</u> 32 lbs/ton Microbes break down organic matter that is easiest to decompose, releasing about 60% of organically-bound N within several weeks of application.

<u>Slowly released over years</u> 21 lbs/ton Microbes continue to break down the organic matter that is hardest to decompose, releasing small amounts gradually over several years. As you can imagine, each batch and type of manure is a little different depending on the type of bedding used, the diet, and how far along in the decomposition process it is. It is a good idea to have manure tested to see how it matches the nutrient requirements of your field. Your Extension agent should be able to get you a free test through the Department of Conservation.

Intake Determines Animal Performance



From "Forage-Animal Management Systems, 1986. After forage availability declined from 10 inches to 2.5 inches, cows were rotated to a fresh pasture.

This figure was part of a publication put out by Roy Blazer in 1986. I like it because it shows so clearly the role of forage availability on animal performance. You can see in the figure that milk production spikes after the dairy cows in the study were turned into a new pasture (with a little bit of lag

time for the rumen to process things). Production remains high for a day or two, then declines sharply. The reason: forage availability. Just imagine how hard it is for a grazing animal to meet the demands of lactation or growth when pasture is 3 inches tall. It would be similar to giving you a gallon of ice cream and a toothpick with which to eat it...you wouldn't need to worry about gaining weight. The same applies to stocker cattle or finishing animals as it does with dairy cows. In fact, animal performance can be predicted much better by how much pasture *remains* when animals are moved out of a field than how much is present when they are moved into it. Take this into consideration as you rotate your livestock. Also use it to help make decisions about feed supplementation. And it's one more reason why leaving your pasture with more leaf area is a good idea.

Questions? Feel free to contact me.

Matt Booher, Extension agent--Rockingham County

540-564-3080 (office) 540-325-7503 (cell)

<u>mrbooher@vt.edu</u>