



PHOTOS BY JIMMY HENNINGS, FORAGES PROFESSOR, UNIVERSITY OF KENTUCKY

# GRAZING ALFALFA

It's all about the management.

by Troy Smith, field editor

Every so often, Jerry Volesky gets a call from a producer with questions about using alfalfa as a grazing resource. A recent query sought information about pasturing cattle on an old, tired stand.

“It seems there had been quite a bit of encroachment by Kentucky bluegrass, and the ground was really rough with (pocket) gopher mounds, so this producer planned to tear up the field and reseed it in late summer,” tells Volesky, a University of Nebraska range and forage specialist. “But the producer wanted to graze the alfalfa first, in the spring and early summer. And that’s very doable. It just takes management.”

Volesky says that particular call was a little different than most. Producers seldom express interest in grazing green, growing alfalfa during the spring and summer. That’s just not something that very many producers do routinely.

However, alfalfa and alfalfa-grass stands are sometimes grazed

in the fall, after a killing freeze. Or, when weather conditions make late-season haying physically or economically impractical, grazing may be an alternative way to capture that final cutting. It’s not that cattle producers never graze alfalfa.

**With good management, an alfalfa stand can be grazed throughout the growing season.**

“But it isn’t a standard practice for very many producers. It’s more of an occasional thing, a stop-gap measure, or something they do when they can’t cut a field for hay,” says Volesky. “Not many producers

use alfalfa as a primary grazing resource, but it certainly can be.”

University of Kentucky Extension Forage Specialist Ray Smith thinks more U.S. producers ought to consider using this high-yielding and high-quality forage more intentionally — for grazing. They do elsewhere.

As an example, Smith cites Argentina’s nearly 8 million acres of alfalfa, much of which is grown for pasture. In his opinion, alfalfa-grass mixtures and even alfalfa alone can be valuable components of grazing systems, especially for cows in early lactation, for stockers or as creep-pasture for suckling calves. Alfalfa pasture can be particularly useful to “grass-finishing” programs.

“Stocker cattle can achieve gains of 1.5 to 2.5 pounds per day while grazing alfalfa. Beef gains of over 1,000 pounds per acre are possible. That’s been documented,” states Smith. “Some people claim alfalfa

Above: “Not many producers use alfalfa as a primary grazing resource, but it certainly can be,” says Jerry Volesky, University of Nebraska.

should be used only for hay and silage, and except for cleanup of a hay field, it’s too valuable to graze. I think it’s too valuable not to graze.”

Both forage specialists agree that alfalfa’s multiple opportunities for grazing begin with spring, since alfalfa typically starts to grow early in the season. For operators wanting more cool-season pasture, to defer grazing of warm-season pasture or range, alfalfa may fill the bill. As an alternative to haying a first cutting, grazing also may help producers avoid weather delays and loss of quality often associated with the more typical first harvest.

Similarly, grazing systems including alfalfa pasture might get producers through a “summer slump” — a period in late July and August when cool- and warm-season grass pastures can experience a decline in quality or quantity. Even temporary alfalfa pasture can relieve pressure on

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other grazing resources while providing a volume of high-quality forage.

In the fall, too, alfalfa grazing can help address scarcities of forage or inadequate quality. Fall-grazed alfalfa can add weight to yearling cattle, increase cow condition prior to winter or provide pasture for weaned calves.

Standing alfalfa can also serve as a protein supplement for cattle grazing an adjacent field of cornstalks or other crop residues. Fall grazing also may reduce pest infestations by removing vegetation that serves as a wintering site or spring laying site for weevil eggs.

### Bloat concerns

One of the reasons graziers might shy away from alfalfa is the fear of bloat. Alfalfa is one of the legumes often associated with that malady, because it is highly digestible and high in readily soluble proteins.

There's more to it than that. Because of an animal's rumen microbiome composition, its genetic predisposition for bloat and environmental conditions may be contributing factors. Also ruminants sometimes suffer digestive disturbances and bloat when consuming diets consisting of other grazed forages or harvested fodder.

That said, alfalfa-related bloat most often occurs when the rapid breakdown of proteins leads to the formation of a froth or foam on the surface of the rumen's contents. The froth prevents the animal from belching to expel the fermentation gases normally produced by rumen microbes.

Death can result when accumulation of gas expands the rumen such that it compresses the diaphragm and the affected animal either suffocates or succumbs to heart failure.

### Manage the risk

Grazing alfalfa presents the risk of bloat, but that risk can be



"The main requirement for intentional grazing of alfalfa is a multipaddock grazing system that limits the time that each paddock is grazed," says Ray Smith, University of Kentucky. Ideally, each paddock would be grazed for three to five days, then rested for four to five weeks.

managed, according to Volesky. He notes the development of some reduced-bloat alfalfa varieties, which contain more lignin — the stuff that lends durability to plant cell walls. In effect, the higher lignin content slows digestion.

"These alfalfa varieties do not eliminate the chances of bloat, but the risk is reduced," emphasizes Volesky. "Grazing still requires conscientious management."

Bloat prevention cannot be guaranteed when cattle graze alfalfa, other bloat-promoting legumes or any lush pasture. However, producers can significantly reduce the risk by observing the following management practices:

- ▶ Feed cattle an anti-bloat product like poloxalene, according to manufacturer's directions. Begin feeding two to five days prior to introducing cattle to alfalfa pasture, and remember that these products are not effective unless consumed consistently. Research suggests the ionophore monensin also aids in reducing risk of bloat.
- ▶ Never turn hungry cattle onto

lush alfalfa pasture. First, provide a "fill" of dry grass or hay so cattle won't gorge on the alfalfa.

- ▶ Limit grazing during wet, cloudy periods in the early spring when alfalfa is making its most rapid growth.
- ▶ Avoid grazing when alfalfa is wet with rain or heavy dew.
- ▶ Use caution when grazing immature alfalfa. Risk is reduced as alfalfa matures. Research suggests that animals introduced to alfalfa less than 10 inches (in.) in height had two times greater potential to bloat than when the stand was 19 in. tall. Some producers wait until alfalfa pasture reaches bloom stage before introducing cattle for the first time.
- ▶ Avoid grazing alfalfa right after a frost. Allow three to five days before grazing is resumed on a frost-damaged stand.
- ▶ Consider using grass-alfalfa mixtures — 50:50 alfalfa and orchard grass, for example.
- ▶ Observe cattle frequently, especially after abrupt changes in the weather, and remove

animals predisposed to bloat.

- ▶ According to Smith, when the number of cattle grazing alfalfa and other legumes worldwide is considered, the "fear of bloat" results in far greater economic loss from forfeited beef cattle gain than the potential losses due to bloat itself.

"Under well-managed alfalfa grazing systems, bloat losses can be reduced to less than 1%," states Smith.

### Life of stand

Another obstacle to alfalfa's grazing potential is the persistent notion that, compared to haying, grazing is more damaging and shortens the life of a stand. This may be true when it is grazed continuously or for grazing periods that are too long.

Such is not the case, however, with properly implemented rotational grazing systems that allow for short periods of grazing followed by adequate periods of rest and regrowth. With good management, an alfalfa stand can even be grazed throughout the growing season.

“The main requirement for intentional grazing of alfalfa is a multipaddock grazing system that limits the time that each paddock is grazed. Ideally, each paddock would be grazed for three to five days, and for no longer than a week. Then each paddock needs four to five weeks of rest before it is grazed again,” recommends Smith.

Volesky agrees, adding that this kind of system actually mimics hay harvest on an irrigated pivot of alfalfa. If the field is divided into six paddocks and each is grazed in turn for six days, each paddock would receive 30 days of rest before exposure to another grazing period. And well-managed rotational grazing shouldn't cause any more damage than haying.

“With many of the newer alfalfa varieties, the plant crowns are low, making them tolerant of wheel traffic during haying. They're also tolerant of grazing and hoof impact. You can graze alfalfa down to 2 to 3 inches of height, like

when it's cut for hay,” says Volesky. “That's not to say that grazing when a field is wet won't damage the stand, just like wheel traffic would.”

It is recommended that plants be well-established before grazing begins on new alfalfa stands, or damage could result. Additionally, producers are advised to avoid grazing alfalfa down to less than 2 or 3 in. of height in late fall. Leaving adequate stubble will catch snow and help protect alfalfa from winterkill.

Cost-conscious managers also may wonder if the cost and effort required to establish a stand of alfalfa make it impractical to use as pasture. Perhaps the best answer is, “it depends.” Operations vary with regard to their goals and their respective needs for harvested feed vs. grazing resources.

Producers should consider the costs of establishment and the fact

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that alfalfa has limited longevity. However, they also ought to think about the costs of mechanical harvesting, as well as the costs associated with hauling and feeding the harvested product.

When cattle do the harvesting, fuel and machine costs are reduced. Having grazing animals on the land returns nutrients to the soil and can reduce fertilizer expense. The high yield and quality of alfalfa allows for higher stocking rates and more pounds of beef production per acre than with more traditional grazing resources. And alfalfa often is available for grazing when other pasture forage is scarce, thus lending greater flexibility to a grazing enterprise.

Producers interested but unsure

about grazing alfalfa might take a cue from the cattleman referenced early in this article, and consider grazing an older and thinning stand before replacing it. It's a way to test the water, so to speak. They also might want to think about extending the useful life of such stands by interseeding grasses to establish a forage resource well-suited to grazing and haying, too.

The point is that alfalfa can be a valuable grazing resource, and the associated challenges can be addressed. As with all aspects of the cattle business, it's all about management. |

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Editor's note: Troy Smith is a freelance writer and cattleman from Sargent, Neb. For more detailed information prepared by University of Kentucky Extension Forage Specialist Ray Smith and co-authors, watch for “Grazing Alfalfa: Economic and Sustainable Use of a High Value Crop” available this spring through the National Alfalfa and Forage Alliance at [www.alfalfa.org](http://www.alfalfa.org).