

Top 10 questions about forages after the 2019 flood

by Craig Roberts and Robert Kallenbach

1. Alfalfa has not been cut for hay in a timely fashion. What are the consequences for quality and winter survival? Should management change from “normal”?

If alfalfa is cut after 10 percent bloom, it will be “stemmy” with quality too low for dairy feed. However, it will have the quality to meet maintenance requirements for dry cows and pleasure horses. If fed with an energy supplement, lower quality alfalfa can also work for beef stockers and replacement heifers.

At this point in the year, there is no consequence for winter survival. Management should include cutting and baling the current crop of alfalfa to enable growth for the next cutting.

2. Low quality hay has resulted from both late harvest and heavy leaching from rain. What possible solutions to low hay quality?

The first step in dealing with over-mature or rain damaged hay is forage testing. Forage testing results provide the information needed to accurately balance animal rations.

Low quality grass hay can be baled and treated with ammonia in a procedure known as “ammoniation.” Ammonia treatment should only be applied to low quality grass hay. Ammonia breaks linkages in the fiber that prevent forage digestion; ammonia treatment increases fiber digestibility and digestible energy.

According to research at the University of Missouri, ammonia treatment also degrades ergovaline and other ergot alkaloids produced by the tall fescue endophyte. Ammonia-treated fescue is far less toxic than untreated fescue.

The procedure for ammoniation can be found at <http://extension.missouri.edu/p/AGW1003>. Take note that this bulletin shows bales stacked as two on the bottom and one on top. Some of our producers have stacked four on the bottom and three on the top. Also, please be aware of that this bulletin does not account

for changes in cost of anhydrous ammonia over recent years.

Another option is to provide grain or grain by-product supplements to meet the nutritional needs of the animals. There are lots of good supplemental feed options, but best results require knowledge of forage nutritive value (see forage testing comments above). Recent work at MU showed that for those with the equipment to do it, it can work. Here is a link to an article from NDSU on it. <https://www.ag.ndsu.edu/news/columns/dairy-focus/dairy-focus-improve-low-quality-forages/>.

Lastly, fertilize cool-season grass hay fields in mid-August autumn. Good quality cool-season grass pastures this autumn can be used to “supplement” poor quality hay. Strip grazing program where a few days of grass and a few bales of hay are fed at the same time can stretch the good quality pasture while using some of the hay. Move stock to a new strip of grass and provide a new bale or two when the original hay bales are 80 percent consumed.

3. What are recommended scouting methods to quantify the risk from ergot poisoning in hay, pasture, and other forages?

There are no hard and fast rules for scouting ergot or determining thresholds. We recommend first to walk the field and look for sclerotia in the seedheads. Sclerotia are chocolate-colored ergot bodies that look like mouse droppings. Be sure to walk the entire field. If sclerotia are present, they will appear in seedheads of nearly all pasture grasses and small grains this time of year (June-July). For more information, see this video: <http://extension.missouri.edu/news/DisplayStory.aspx?N=1908>.

In our judgment, if 20 percent of the seedheads contain sclerotia, the field should be considered highly toxic.

4. How do I repair hoof damage to wet soils? Will these lead to greater weed or other pest problems?

The best repair for cool-season grass fields damaged by hoof traffic is to implement good grazing practices. Avoid grazing hoof damaged pastures until the regrowth reaches 8 to 10 inches in height. Once the pastures recover, be careful to not allow stock to graze the pasture to a height of less than 3 inches.

5. Are there short-season, summer-annual forages that can be planted this late to produce some hay? How about silage?

Yes. Forage sorghum, sudangrass, or pearl millet could be used if planted before mid-July, though yields will be lower than normal. More information on these crops at this link: <https://extension2.missouri.edu/g4661>.

Small grains (rye, oats, wheat) and/or annual ryegrass could be planted in late summer for hay or silage. Turnips and other brassica species can be planted for forage too, but are difficult to store as hay or silage.

6. If hay is recently cut, will the stand survive typical 90F+ summer temperatures?

For tall fescue and many other cool-season grasses, stand decline should not be much greater than normal. Cool-season grasses often go through a summer dormant period. Over the years, many tall fescue-based pastures and hayfields have been through several wet and drought cycles. For fields of smooth bromegrass, leaving a 4-inch stubble would be advisable as that species elevates its growing point as it matures.

While this may be a tough year for many legumes, harvesting now would help them more than leaving the forage standing. Legume stand thinning might occur, but that would be due to the wet weather and grass competition, not because of the harvest timing.

7. Hay was flooded and contaminated with dirt and other stuff. Will contamination affect animals?

Perhaps. Most often animals will refuse forage covered with soil or other contaminants. The greatest threat will be when livestock are forced to eat forage they would otherwise refuse.

8. Will moldy hay affect animals? Is there something to decrease impact?

It can, but it is unusual. Most often moldy hay will be refused by animals if there are other sources of feed. Be most careful feeding moldy hay to horses, which can cause colic. Diluting the diet with other non-moldy feedstuffs can lessen the impact.

9. If they plant soybeans, knowing it will likely freeze before they are able to harvest, when is the best stage to bale?

If possible, harvesting at the early pod stage gives the best compromise between yield and nutritive value. If a frost is imminent, then harvesting as soon as possible would be better than waiting.

10. Should additional nitrogen fertilizer be applied to cool-season grass pastures now (July) after hay is made?

Given what we expect regarding the nutritive value of hay this year, we would recommend fertilizing (mainly with N) cool-season grass hay fields in mid-August. Fertilizing before mid-August typically does not help much because dry conditions and warm temperatures in summer limit cool-season grass growth. Good quality cool-season grass pastures this autumn can be used to “supplement” poor quality hay. Strip grazing programs where a few days of grass and a few bales of hay are fed at the same time can stretch the good quality pasture while using some of the hay. Move stock to a new strip of grass and provide a new bale or two when the original hay bales are 80 percent consumed.