

# Weekly Article

6-6-2022

## Keep an Eye on That Hay

Hello, my Name is Richard Purdin with OSU Extension, Ag and Natural Resource Educator and Community Development Educator for Adams County. I hope to better inform local producers and the public of the latest news in the world of agriculture. June is here and with it comes more field work delays. Frustrations among producers is growing as fields remain waterlogged and forages remain unharvested and degrading in quality each time it rains and delays harvest. According to Jim Noel with National Weather Service based in Wilmington Ohio, the average precipitation amounts for the month of June varies between 1.5-2inches, as of June 7<sup>th</sup> Adams County has received amounts ranging from 2.5-3 inches and we are just in the first full week of June! Temperatures have been trending below norm about 1.5-3 degrees cooler than normal. The wet and cool conditions have fueled some pest pressure that producers should be aware of. Through my field scouting efforts, I have taken note of increased foliar feeding from flea beetles and slugs. Nitrogen deficiencies have also plagued many corn fields that have the roller coaster effect from healthy green corn on the ridges to struggling yellow corn on soggy flats and clay banks. Utilizing nitrogen stabilizers should be considered this season even with the extra cost. This is a great way to protect your investment from leaching, denitrification, or volatilization. Winter wheat is maturing normally and so farm grain quality looks very good and yield should be on the high side. Speaking of good yields, forage crops (that have been harvested), have been yield very well with reports of 2.5-3 tons of forage per acre. The big question is quality. Today I want to discuss some concern that I and some other producers have about the forage crops that have been harvested thus far and some steps that should be taken to avoid quality loss in storage or potential fires.

It seems like every year you hear about a barn fire or just a row of round bales igniting like a big Cuban cigar due to hay being made on the moist side. It is recommended that dry hay be baled and stored at moisture levels between 13-20%. The reason for this is that when forages are stored at higher levels of moisture, mesophilic bacteria will begin to form in the hay and raise the temperature within the bales. Temperatures can rise to levels of 130-140°F. This process can happen within a 40-day period. During this period Thermophilic bacteria (heat loving bacteria) will begin to form and make temps rise to dangerous level of 170°F or higher. When this happens forages can ignite. Even when you think the moisture level of forages are perfect for baling, there can always be wet spots within the field. Areas around the edge of wooded areas or grass waterways can hold moisture longer than other areas due to shading or

water standing at the time of harvest. This year I have seen many producers (not excluding myself) pushing the envelope on ground conditions at harvest. When soils are damp hay can pick up moisture but still appear dry, also humidity can play a key role in moisture content. If you have concern about some hay that you have baled recently here are some good steps to monitor within the first 40 days of storage.

- **Investing in a moisture tester-** Moisture probes with temperature gauges will run you about \$300-\$400, but that is a lot cheaper than a new barn, loss of machinery, or injury/death to livestock.
- **Take action at 150°F-** When hay temps reach 150°F, the danger zone has been met, I recommend moving the hay out of the barn to allow air flow to cool down the hay.
- **Be careful when hauling hay out of the barn** – Hot spots can form within large haystacks, creating burned out cavity that you can fall into.
- **Enhance air flow-** storing bales in well ventilated barns is very helpful. Leaving voids or gaps between large round bales and stacking small square bales or ends can help with air flow.
- **Preservatives can be good or bad-** Propionic acid preservative have become widely used among hay makers. These preservatives can be very useful tools when moisture levels of hay are between 20-25% moisture, but not very useful when moisture levels are greater than 25%. If hay has been treated with preservatives and still begins to heat, toxic gases can be emitted that are hazardous to breathe. At this point trained fire rescue specialist should be informed.

In summary forage fires can happen, especially during wet seasons we are currently experiencing. I know that I preach on capturing quality but at the end of the day being patient and losing a little quality is much cheaper than losing a barn, equipment, or livestock. Take time to make hay at proper moisture levels (13-20%) and monitor questionable hay in storage daily.

Here is a good article that explains more ways to prevent forage fires on the farm this season. <https://agcrops.osu.edu/2022-17/hay-barn-fires-real-hazard>

Some other details to go over.

- Crop planting certification with USDA FSA – July 15<sup>th</sup>.
- Adams county Fair – July 11<sup>th</sup> – 16<sup>th</sup> make plans to attend and support the future leader of our county and country.