CFAES COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Auglaize County ANR

News from OSU Extension

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Cover Crops to Follow Wheat

Alex Lindsey, Mark Sulc

Considerations for planting cover crops after wheat in grain crop rotations are common this point in the season. With any cover crop, it is advisable to select a species with a given target in mind (surface erosion prevention, nutrient scavenging, N fixation, soil coverage, etc.).

Grass species, like oats or ryegrass, are typically fast to establish and can provide soil coverage to reduce erosion. Some species (like oats) will typically winterkill, whereas other species are more hardy and may need to be controlled in the spring before or shortly after planting. Additionally, some grass species may be alternate hosts for some corn pests (fungal diseases, nematodes) and may not be the best choice to follow wheat and precede corn in the rotation.

Some legume species (like vetches and crimson clover) may be able to tolerate August weather well if temperatures stay on the cooler side of average. These could provide N to corn next year if inoculated with rhizobia prior to planting, but may serve as an alternate host for soybean cyst nematode and should be avoided if soybeans are planned for next year. Other legumes (most other clovers) are poor hosts for soybean cyst nematode and could be a better option if rotating to soybean. Field pea may be another option as a legume, but if seeded in August it may not overwinter as compared to a mid-September seeding.

Brassica species (like tillage radish) will establish well and help reduce winter annual weed populations if seeded early, and should produce large taproots to help aerate the soil. Because precipitation and temperatures can be variable this time of year, the use of a cover crop mixture may be advantageous to ensure at least one species succeeds in establishing in the field. For more information about different cover crops and planting methods, be sure to see Chapter 10 – Considerations for Using Cover Crops in the 15th edition of the Ohio Agronomy Guide (Bulletin 472) - http://estore.osu-extension.org/Ohio-Agronomy-Guide-15th-Edition-P475.aspx. Also refer to a small plot cover crop stand evaluation study available at http://www.oardc.ohio-state.edu/forage2016/table10.asp.

Cover crops after winter wheat can also be a source of forage for producers with livestock. Excellent options for August to early September plantings include oat, spring triticale, Italian ryegrass, forage brassicas (early August plantings and for grazing only). Be aware that Italian ryegrass can become a weed problem in grain crop rotations, so it may not be desirable where grain production is the main objective for the land.

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Hay Barn Fires a Real Hazard

Jason Hartschuh, Allen Gahler, Mark Sulc

Mother nature has been at it again, hardly giving us enough days to make dry hay with a risk of pop-up showers every afternoon. These conditions are very dangerous for hay producers since wet hay doesn't just rot it may also burn. Hay fires are caused when bacteria in wet hay create so much heat that the hay spontaneously combusts in the presence of oxygen. At over 20% moisture mesophilic bacteria release heat-causing temperature to rise between 130°F to 140ºF with the temperature staying high for up to 40 days. As temperatures rise thermophilic bacteria can take off in your hay and raise the temperature into the fire danger zone of over 175°F.

"wet hay doesn't just rot it may also burn. "

If the hay was baled between 15-20% moisture and acid preservatives were used there is still potential for a hay fire but not as great as on non-treated hay. Having a moisture tester on your baler can help you know the variability across your field in moisture and when to use hay preservatives. Without a moisture tester, you find darker green damp spots occasionally, or if humidity is high be sure to monitor for heating. Most propionic acid-based products are effective if applied at the correct rates at inhibiting bacteria growth in hay up to 25% moisture, with variable effectiveness at 25-30% moisture.

Monitoring The Haystack

If you believe that you may be at risk for hay heating, monitoring temperature is critical. It should be done daily until temperatures stabilize in the safe zone or reach 150°F when monitoring needs to be increased too twice daily. This can be done with technology or manual temperature probes. When monitoring hay temperature, be very cautious, hot hay can burn within the stack and cause cavities underneath that you can fall into. Use planks to spread out your weight while walking on the stack and have a harness system attached to the ceiling in case you fall into a burned-out cavity. Also, work in pairs with someone on the ground within voice range to assist you if you find yourself in a bad situation. Temperature monitoring should continue for possibly six weeks until values stabilize in the safe zone.

Temperature Monitoring

Critical Temperature Markers for Hay Storage.

Temperature (°F/ °C)	Action
125°/51.6°	No Action needed
150°/65.6°	Hay is entering the danger zone, check temperatures twice per day. Disassemble haystacks moving bales outside to allow air circulation to cool the hay.
160°/71.1°	Hay has reached the danger zone. Carefully check the hay temperature every few hours. Disassemble stacked hay to promote air circulation to cool hay be very careful of even hotter spots. Have a tank of water present while unstacking.
175-190°/79.4-87.8°	Hot spots or fire pockets are likely. Alert fire service to the possible hay fire incident. Close barns to minimize air movement around the hay. With the assistance of the fire service, remove hot hay. Be aware that bales may burst into flames, and keep tractors wet so the tractor does not catch fire.
200°+/93.3°+	Fire is present within the haystack near the temperature probe. With the assistance of the fire service, remove hot hay. If possible, inject water into the hot spot to cool the hay before moving. Most likely a fire will occur, keep tractors wet and fire hose lines charged in the barn and along the route of where bales will be stacked.

Temperature monitoring depends on the stack size but should be taken close to the center of the stack. In larger stacks ideally, this is 8 feet down in the stack. This can be done by purchasing a long probe thermometer or building your own. Building your own can be done with a 3/8-3/4 piece of pipe or electrical conduit cut into a closed point. The pipe size will depend on the thermometer probe size you will put in the pipe. A larger pipe can be used and a thermometer on a string is lowered into the pipe. Drill 3/16-inch holes in the bottom four feet of the pipe. Leave the thermometer in the stack for about 10 minutes to get an accurate reading. A less accurate method is to leave a pipe in the stack all day, and if a section is too hot to hold in your hand when removed you are at risk for fire. Or even better use an infrared thermometer to measure the temperature of the pipe. Any time temperatures are above 175ºF hay should not be removed from the barn until the local fire department is present, you are at risk for fire. Once the fire department is present hay should be carefully removed from the barn with charged fire hoses ready if spontaneous combustion occurs. Have a safe and well-drying hay season this year!

You can find the CROPS article HERE

Rural Wisdom

Jamie Hampton

In farming and gardening, to hoe a row is to turn a line of soil for the planting of seeds or bulbs. This is the origin of the idiom tough row to hoe, which describes a large, challenging task. A literal tough row to hoe might be one that is long or that involves hoeing dirt with lots of rocks or roots. A figurative tough row to hoe is any large undertaking that is especially difficult.

However, when some folks say a long rode to ho, they are not wrong either, a rode, r.o.d.e. is a length of rope used to tether a ship to the dock, in stormy weather you would have a longer rope to reduce the damage to the ship. To ho, is to pull the rope in, as in “heave ho”. During bad weather a seaman would have a hard job to ho the rode back onto the ship In order to set sail.

Therefore, if you have a mariner background you may have a “long rode to ho”, but if you have an agricultural background, you will have a “long row to hoe”.

June Events

21st , Ag Brunch at RJ's Coffee Cup at 11:00am. Our speaker will be Bridget Britton, behavioral health field specialist

20th, The office will be CLOSED

22nd, Nature Walk at Mill Park in Saint Mary's. Neal Brady will be speaking on the Agricultural History of the canal system

23rd, Young Farmer's Management Series. Topic will be Ag Finance, presented by Micah Mensing with Farm Credit, location; The Side Rail restaurant at 17 E Auglaize Street, Wapakoneta

29th , Mercer County Lawn and Garden Talks at the central service building in Celina, use the sugar street entrance. The topic will be succulent plants

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