News Column
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# FIRST HOLLOW STEM

Having grown up on a livestock farm, where every crop acre was also a grazing acre at some time during the year, I have seen both good and bad crop grazing management. The good is never as memorable as the bad, so I'll share one of my dad's bad management decisions that has been stuck in my memory for decades.

I believe this occurred at some time in the mid-1970s. Dad was short on hay, and he knew he was pushing the limit, but he still grazed his wheat until mid-April, maybe later. I remember him worrying daily that his wheat was probably already jointed and that he was hurting his yield, but I don't remember him actually checking plants to look for the joint.

What I should probably tell you though is that I was in middle school and high school during the early 1970s, and I was in school all day, so I really didn't see what Dad did all day while I was gone. He probably checked his fields and knew he was hammering his yield — and did it anyway!

This story doesn't have the bad ending you would expect though. There was a late spring freeze that year, wiping out yields for most of our neighbors, but Dad's wheat was OK. The fields that were grazed well into April were set back enough, and were far enough behind in their development, that they weren't damaged by the freeze.

We had a long, cool spring that year and Dad's wheat – wheat that probably would have been 20 bushel per acre wheat in a normal year – yielded 40 bushels per acre.

Sometimes you get lucky.

Rather than relying on luck, the better plan is to monitor fields and remove cattle when wheat reaches first hollow stem. This will require spending a lot of time on your hands and knees, digging up plants and cutting them open, but it feels kind of good to make an informed decision instead of just guessing.

Many of you will remember that we used to recommend removing cattle before wheat joints. I guess that is still sound advice,....except we actually need to remove cattle several days before wheat joints to avoid yield losses.

Jointing is the point where you can feel a node, near the ground, on the stem of a wheat plant, and when you cut open the stem above that node you will find a very tiny wheat head. First hollow stem occurs before that stage, while the node and developing head are still below the surface of the soil.

To check for first hollow stem, go to an ungrazed area in the field and dig four or five plants. Plants must be dug up because the hollow stem we are looking for is still below the soil surface. The ungrazed area will be farther along in development than will the grazed area, but that's where we need to check to make a good decision.

Once plants are dug up, select the largest tillers and split the stems lengthwise. A razor blade or box cutter works best, but a sharp pocket knife will do the job too.

Now, locate the developing wheat head and measure the amount of hollow stem below it. If there is 5/8 inch of hollow stem below the developing wheat head, the wheat is at first hollow stem and it is time to stop grazing. The width of a dime is 5/8 inch, so there's your perfect measuring device,... if you still carry pocket change.

Depending on the year, grazing past first hollow stem can reduce grain yield by anywhere

from one percent to five percent per day. In most cases, the additional cattle weight gain won't be sufficient to offset the loss in grain yield.

A couple of early maturing wheat varieties were already at first hollow stem by Tuesday of last week near Hutchinson, in south central Kansas. Being farther north, wheat isn't as far along here, but our early planted fields could be at first hollow stem really soon,...if they aren't to that stage already.

If you have questions, you can reach me at the Riley County Extension Office at 785/537-6350. Or, you can send e-mail to gmcclure@ksu.edu.



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