ADVANCED AG SYSTEMS'S

Crop Soil News

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"It is the crops that feed the cows that make the milk which creates the money."

Advanced Ag Systems
Research, Education, Consulting

Mid Season Corrections for Horrible Weather

"A drought will scare a man to death; a flood will starve him": old farmer quote.

Surviving when weather turns against you means thinking outside the box. The wet and cool/cold has held on and now has put normal planting/harvesting into the far edges of the bell shaped curve of normal results. The key to remember is YOU STILL HAVE OPTIONS if you think outside the box. Same old, same old will not cut it this year.

Not all the corn is planted and fields are still too wet. If there are corn grain growers in the area they are struggling with the wet weather, and the cloudy conditions will significantly decrease projected yields based on previous years like this. Thus, they may be open for you to buy their standing corn out of the field. It is not the highly digestible varieties you normally grow but will make more milk than sticks and dirt clods you are facing now. It is critical to watch the milk line and harvest grain varieties slightly earlier to assure full kernel digestibility and maximize stalk fiber digestion.

If hayfields are not harvested, the alfalfa is past its optimum. As long as most of the stand has not significantly lodged, you can use a sneaky trick to get better quality forage. Most alfalfa is at peak quality at about 32 inches. If it is at 40 inches, raising the cutterbar so you only take the top 32 inches can significantly increase the feed quality and digestion. The 6-inch stubble you leave has digestibility of the bushes at the edge of the field. Unfortunately, this does not work with grass, so just cut it at the normal 4-inch height. Mostly grass fields should be let it go until after the legumes are harvested.

The next option is to switch to short-season corn planted at a slightly higher population. The problem with this is that most short-season varieties for your area have already been snapped up by other farmers. My secondary concern is that you will switch to desperation planting when most of the field is still too wet for normal trafficability. Many years like this go from wet to too dry in a midsummer switch. The corn mudded in will have a shallow root system that can potentially reduce yields and grain content. It then gets hammered when it turns dry. This is why it is always better to wait for the right soil conditions before planting.

Short season corn can produce amazing yields in a short time. The problem this year is getting the seed at this late date. Alternative crops can step in and provide the quality forage you need.

We now come to the traditional "the season is in the toilet" crop options. These are the various sorghum, sorghum-Sudan, Sudangrass and Pearl Millet varieties. No, these are not desperation measures, but viable alternatives every year for producing high-energy forage to support both dairy and beef. Only BMR should be planted as they supply the highest fiber digestibility, which supplies the most usable nutrients.

The first and most promising replacement for corn is the BMR Male Sterile forage sorghum. We have been working on this crop for several years, and what we learned has greatly increased its success as a primary forage for dairy cows. In dry conditions last year, it blew the doors off corn silage in higher yields. In a carefully replicated study, replacing corn silage with properly grown and harvested BMR Male sterile forage sorghum both increased milk/cow and significantly increased components due to the high sugar content (levels commonly over 25% on DM basis). It is cheaper and more effective than adding molasses. You need to wait 5—6 weeks after heading before harvest to raise the stored sugar levels.

In row spacing from population has a major effect on stalk size and standability

Like any crop, it has key steps for success. An **absolute essential step** is the **population planted and the row width used**. This is a major deciding factor between success and failure. There are tremendous erroneous recommendations out there. The old farmer's tale is to plant it at 15-20 pounds of seed/acre which at the average pounds of seed/acre results in 225,000 seeds/ acre or less than 1 inch between plants on a 30-inch row. The story is that it increases the yield, and the smaller stems are more digestible. **NOT TRUE. BS, Bad Science**. The result was a crop that fell over before harvest. The smaller stems had a huge increase in percent rind (outside rim of the stem with high lignin). This significantly decreased the digestibility of the forage.

First, plant **4 lbs. of seed/acre (60,000 seeds/A)**. Higher rates just mean you have a crop flat on the ground. Check your drill that it can plant that low. Sorghum flour (from ground-up seeds) will not grow. If it can't plant the 4 lbs/a of whole seed, plug every other hole to allow the star drive to be open enough to let the whole seed through.

What we have found is that as we increased the spacing **in** the row, the sorghum stalks got as big as corn stalks and the lodging issues decreased or disappeared. Yield and digestible fiber were still maintained. Our hypothesis is that at 7.5 inch row spacing, 60,000 – 70,000 seeds/acre is optimum. (note: we do NOT use pounds of seed/acre but **seed count/acre** just like corn). This is nearly equidistant spacing to maximize yield, quality, and standability while shading the ground to prevent weed growth. Spacing **within** the row is critical. You need smooth, not accordion type drop tubes or you will have uneven dumped planting that lodges.

Narrow 7.5 inch rows shade sooner to control weeds, and have more space between the plants at the same population as the wide row. This is critical for standability. It also gave us the maximum yields.

If you don't have a drill or yours cannot plant correctly, you can use a 15-inch spacing corn planter with sorghum plates. You still need that in-the-row spacing to prevent thin lodging stalks, and that is achieved at 60,000 seeds/acre. With GPS and a 15-inch corn planter, you can plant a 15-inch row and with a 7.5 inch drawbar offset at 30,000 seed/a; double back splitting the rows to get very accurately planted 7.5 inch results in 60,000/A. If

you don't have a 15-inch corn planter you can use the normal 30-inch row planter at 30,000/A and offset the drawbar 15-inches to get 15 inch rows when you double back. The 15-inch yielded less than the 7.5 inch but still had very respectable high 20 tons silage yields.

We do not suggest you plant sorghum in 30-inch rows as in my replicated trials it **yielded much less than the narrow 7.5 inch drilled rows**. If you insist on using this spacing, we are suggesting the same 30 – 34,000 seeds/acre as corn to keep the crop standing and have stalks that maximize digestible content. The alternative is to use the higher old suggested seed rates and ***have the entire crop on the ground at harvest***. In my research, I have had an intense storm (hurricane) hit after the plants headed out. Because it was planted at the correct population, in two weeks it was ¾ back to standing upright. At harvest, it was nearly all upright. This will not happen at too high a population. It goes down and stays down as it did in hurricane Helene last year.

There are several varieties out there that I have grown. I don't sell seed, nor do I get any cut from what you buy. I am only passing on my experiences. I make the mistakes so you don't have to (as a farmer friend pointed out, "you are a professional screw-up—and thank you for doing that so farmers don't"). For north of the Mason Dixon line the shortest season type has been from S&W seed. A real producer that has maintained its male sterile character. South of that line the Alta seed variety has done well. It is longer season so if the summer is running out use the shorter type above. There was another variety with nice genetics and quality control issues as it all had seed set – ruining the digestibility. Another had a good male sterile, but the parent genetics caused it to send out heads from each of the leaf axils which converted the highly digestible nutrients into lateral shoots with lots of lignin and very low digestibility. **Buyer beware**. There are good longer season male sterile varieties, but you must look and ask questions.

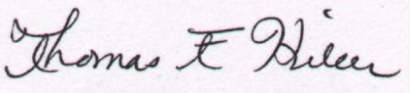
BMR Sudan grass: BMR sorghum Sudan, and BMR pearl millet can give good yields in a relatively short period of time.

Once you get past the beginning of July for northern areas and the middle of July for south of the Mason-Dixon line, you are starting to run out of season. At this point, a BMR Sudan grass will give high quality at a lower yield potential. The finer stems will allow for round bale wrapping. The BMR sorghum Sudan grass is normally higher yielding but of lower quality. There are some varieties that have the same or more energy as the Sudan grass. Both of these are drilled at a higher seeding rate, especially if more than one cut is taken. If only one cut is planned, then plant the lower seed rate to reduce the potential for lodging. BMR pearl millet has been a top producer in our trials. It is a wet forage that needs some drying.

For all of these above crops, the higher plant moisture and higher sugar levels allow complete fermentation by applying a **homolactic inoculant at harvest**. ***This is Critical***. The sugar and bacteria quickly drop the forage pH, eliminating Clostridia and butyric formation.

When we reach the beginning of August, a different set of crop possibilities open. This will be discussed in the July newsletter.

Sincerely,



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