



ADVANCED AG SYSTEMS'

Crop Soil News

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September 2020

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

September: Set up for 2021

You are up to your eyeballs in corn silage harvest as a major portion of most dairy farms' forage comes into storage in September and early October. The dry weather has left a shorter crop in some areas, but late rains have produced a higher percentage of grain in the silage that pollenated.

First, and most critical is a **caution with this year's crop**, especially sorghum, sorghum-Sudan, and Sudan grass. The widespread dry conditions, coupled with shots of rain, are perfect for setting the sorghum species (and corn) up for **high nitrates in the forage**. Farmers get all worried about prussic acid in their sorghum silage. Properly harvested and **fermented** there is little prussic acid risk. In my 44 years I have only heard of one instance (grazing) where this occurred. Nearly every year someone, somewhere, kills a bunch of animals from excessive nitrates in the forage (not just sorghum species). The good news is that fermentation will often drop the nitrate levels in half. This droughty year might be a good time to **test before you feed**.



Sorghum produces well in drought conditions, but we suggest you check for nitrates.

As the rush of harvest slows there are a number of steps you can take to get off to a better start next spring. The first, and one that has been forgotten by many farmers (a management process I developed way back in 1980) is to **NOT** plow sod fields for corn. A **fall killed sod makes spring no-till planting the earliest corn you can get in the ground**. The already decaying sod is a dream to plant in as the soil is usually the consistency of potting soil. Issues like hard surface are nonexistent. Problems such as armyworm and slugs have gone to some other field more to their liking. Herbicides applied in the fall are translocated to the roots where they kill the next year's regrowth points over the winter. Spraying sods rotating to corn between October 1 and October 15 (Albany, NY area, adjust for your climatic region), when there is at least 6 inches of vegetation, catches most tough perennials when they are translocating into their root systems for winter storage. This brings the herbicide to the deep root systems, where it does the most good. Milkweed, dandelions,



No-till planting into fall killed sods gives higher yield than spring killed, allows earlier planting, has no penetration issues, and controls tough weeds easily. All this and saves time and money too.

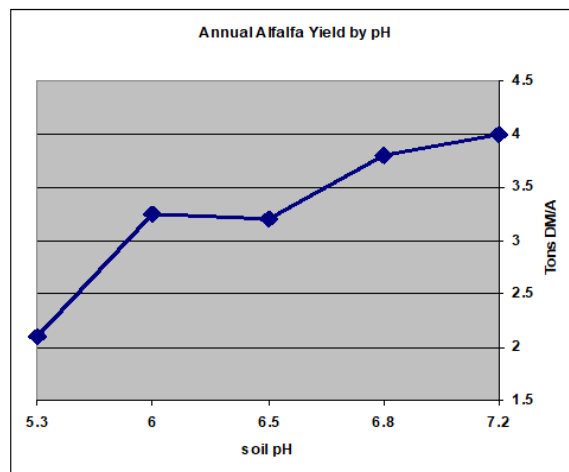
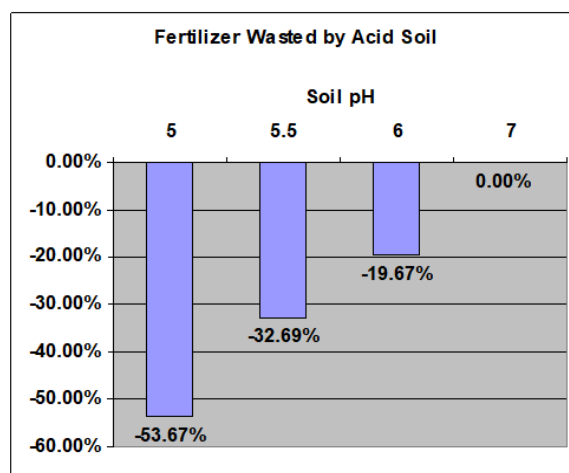
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and other perennials were rampant in those **not** fall killed. Fall killed were clean fields. We have consistently gotten excellent results with .75 of glyphosate (the 1 qt. original Roundup®) and a quart of 2,4,D. The vegetation slowly breaks down over winter so I have found had little to no erosion the next spring. The ground warms much faster with the excess residue decayed over winter. In the spring, farms then no-till their corn directly into the mellow soil. There is little or no problems with penetration. The **BIG advantage** is that you can successfully no-till plant without wasting critical time, fuel, and a pile of money tilling the ground during one of the busiest times of the season. As soon as the ground is at minimum temperature at planting depth you can simply plant without all the hassle. Spray it and you are done. You can still use regular one pass minimum tillage for your corn following corn ground. The [April newsletter](#) had information and some pictures of the results of this fall kill practice.

The other key step you can take after corn silage harvest is to comprehensively soil test your fields. You pour a tremendous amount of money in as fertilizer, seed, spray, tillage, and time. Many farms do this blind – they are guessing at the fertility status of the field and blindly hoping for optimum production. On a 150-cow farm that that I worked with, they soil tested all their fields every other year for 6 years. They **SAVED 35% ON THEIR FERTILIZER BILL WITHOUT SKIMPING ON ANY FERTILIZER NEEDS.**

Not only savings on fertilizer, they had better crops from higher response to the fertilizer that matched that field’s needs. Assuring correct pH means more of the fertilizer is available to the crop. Without soil testing, many farms are severely handicapped in profit from low pH. Fields of 5.4 – 5.8 are common, especially on rented ground. At these pH levels, as the chart on the right shows, you are throwing away a third of your fertilizer impact. Even at pH 6.0, nearly 20% (one ton in five) is lost due to the acid soil’s effect on availability. In this era of tight margins, **correct the pH FIRST** and then add what fertilizer the checkbook will allow you, is the way to maximize returns. **“If you have a dollar to spend, spend it on lime,”** still holds true today. The bottom line of this is shown in the graph at right, the all important yield of **alfalfa forage**. Even at a pH of 6.0, you are **leaving about ¾ of a ton of dry matter(20% of the crop)** in the field if your pH is not up to the optimum for legume.

There is a common perception that the lime needs make alfalfa growing an expensive proposition. Soil will decrease in pH as acid rain and ANY crop removes calcium and magnesium. **IT TAKES THE SAME AMOUNT OF LIME TO MAINTAIN pH REGARDLESS OF THE CROP.** It just means the balance point is different. High lime need means you are making up for what you didn’t do before.



Sincerely,

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Hand
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