



WALKING FIELDS

LAND RENT WITH FERTILITY

With a very competitive land rent market in many areas, rental agreements can come with more stipulations. One common addition to cash rent agreement is that soil fertility needs to be maintained or restored to the original or other specific levels. A fertility clause reassures conservation-conscious landowners when renting to new or unknown producers. It also helps to ease the mind of a farmer seeking new land that they are not agreeing to rent a farm that has had nutrients mined by previous tenants.

The weak point of these clauses can be the variability in soil tests. Ask the questions of who took the soil test, how they pulled the samples and the lab used before signing an agreement. The difference in sampling technique and labs analyzing the samples can cause unintended differences in nutrient levels as well as pH and organic matter. These discrepancies can create an expensive situation for a tenant and heartache for a landowner who is trying to do what is best for the soil.

Before signing a lease first establish a soil test to be used as a starting point. This can be a recent test pulled by an agronomy service and analyzed by a reputable lab. If there is speculation of the accuracy of this baseline test, pulling your own samples with techniques and a lab that are agreed upon can be a cheap way to avoid a disagreement at the end of a land rental agreement.

IMPORTANCE OF SULFUR

“SULFUR? NEVER HEARD OF HER”

As producers push for higher yields some historical fertility practices tend to not bare the weight of yield expectations. Sulfur can often be limiting in these situations.

Like all essential plant nutrients, Sulfur plays a critical role in the growth and development of the crop. Sulfur plays a key function in formation of chlorophyll, protein production, oil synthesis and enzyme activation. With the reduction of sulfur dioxide in the atmosphere from anti-pollution laws, combined with higher crop yields has increased the need for additional Sulfur in recent years.

Sulfur can be mineralized from organic matter which holds about 95% of all Sulfur in soils or supplemented by using fertilizers, such as Ammonium Sulfate or Calcium Sulfate. A corn crop will remove 0.8lbs of S per bushel and soybeans will remove just under 0.2lbs/bu. Mineralization normally will only yield about 3-5lbs of S, so fertilization is often needed. Because

Sulfur is used by crop throughout the season and is prone to leaching, fertilizers should be applied as close to the crop need as possible. In corn the time of most rapid S uptake is from V14 through R5 with half of the total S taken up after tasseling while in soybeans it is more of a steady climb from V2 through R3.

Sulfur deficiencies are often seen on sandy soils and areas with low organic matter because they struggle to hold the leachable nutrient. Sulfur deficiencies in corn appear first on the younger leaves because S is immobile in the plant and show up as stripes on the leaves. Tissue sampling can help identify S deficiencies as Magnesium, Manganese and Zinc deficiencies can also cause leaf striping. In soybeans, look for slow and delayed growth with yellowing of leaves in the upper canopy.

Tissue sampling can assess S needs. Taking a good and bad sample, the N:S ratio should be 15:1. When analyzing soil sample results, a level of 10 ppm of S is sufficient.



SB SEED TREATMENT

YOU'RE PAYING WHAT FOR TREATMENT?!

As the calendar rolls to February, soybean seed treatments become a topic of conversation as treaters are about to be fired up. There is always discussion of the cost of locally applied soybean treatment and it seems there is always a few places that offer treatment much lower than the rest. Is the cheap guy leaving something out? Not always. Are the rest of them just trying to screw me? Not at all. Is the more expensive treatment worth it? Sometimes.

To answer these questions simply ask some of your own. Ask for a list of all active ingredients in the treatment option. This helps to ensure that comparisons are being made between the proper products. Put a value on any biological or "add on" products that a treater might offer. Do this by asking for or finding yield trials with the product. Although, not all trials will only test a single additive this can be the best indication of on-farm value of a product. A tremendous resource that helps to evaluate soybean and corn seed treatments is the ["What's on your seed?" Pest management publication from University of Wisconsin Extension.](#)



XTENDFLEX SOYBEANS

ARE XF BEANS A FIT FOR YOUR FARM?

In late September of 2020 the XtendFlex soybean system from Bayer received full export approval. The XtendFlex system brings an additional herbicide tolerance to the RoundUp Ready 2 Xtend platform. The newest generation of soybeans will provide growers with the ability to apply glyphosate, approved dicamba products and now glufosinate in-season. Just like the other herbicide tolerant platforms on the market, these specific herbicide tolerances should not replace the use of a pre-emerge residual and overlapping residual herbicide program. When selecting soybean varieties in a new and unfamiliar trait platform, pay close attention to the variety characteristics. Bush type, upright growth structure and lateral branching can give growers an indication to whether a variety is fit for their practices on farm. Disease tolerances can be indicated by a gene or field tolerance in the cases of BSR and PRR, but some disease tolerance ratings like white mold depend on environmental pressure to evaluate new varieties. Be aware that with less WM pressure in 2020 these rating may change as varieties are exposed to different levels of disease pressure.

CORN ROOTWORM PRESSURE

PRESSURE INCREASING; TRAITS DECREASING?

Over the past couple years, we have seen pyramid below-ground trait use on the decline in corn-on-corn rotations for a couple reasons; first, lower seed input costs; second, a belief that corn rootworm pressure is declining. Through much of the corn belt in 2020 there was an increase in rootworm pressure and that pressure is expected to continue to increase through 2021. With field level tolerance to the majority of single traired rootworm products, stacking multiple modes of action is more important than ever. Each single trait may not fail every year but increasing the pressure on that Bt protein may take it out of the toolbox in the future. Grower demand for generic insecticides in areas of heavy pressure has also grown; again, be aware of resistance and how long these products offer effective control in the root zone. Utilizing multiple effective modes of control is the best way to preserve yields and technology.



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