LFB Solutions, Inc
578 N Union City Rd, Coldwater, MI 49036
E-mail: LFBsolutions@msn.com Ph: 517-812-2483

October 2007

So many things happening

There have been so many things happening this growing season, it's hard to know what to write about. One thing the growing season has pointed out for us very well is that you never know what to expect, from one growing season to the next. If you ever expect to survive the pace of being a farmer, you need to optimize each year. That way it makes it a little less painless when misfortune comes your way. So the challenge is how to optimize the crop for your area and your soils, practices, etc.

We need to go back to basics in many cases. It is easy to soil test for information. As Ed Winkle says "Don't guess, soil test." In many cases these tests are already being done for you by your fertilizer dealers, or your consultants. Many people say "my soil test says I need …." . We need to understand that soil tests don't say anything.

People are the ones who say what your soil test reports as being present, and what your soil needs to be productive for the intended crop. Put 5 soils guys into a room, and you could get 6-8 different recommendations as far as what you soil should have applied for the given crop. Everyone has a different opinion. That is where it gets dangerous for your wallet.

You need to understand in many cases your fertilizer dealer may not have your best interests in mind when he makes a recommendation. He has in mind, as much as anything, how to keep the doors open, and, therefore, having a job for next year. Most are nice guys, and would not intentionally lead you astray, but many fertilizer managers don't know a whole lot about soil fertility. As one manager told me just a few years ago, "I don't know anything about what is on the soil test, I just recommend what I want to sell them".

That guy doesn't have your best interests in mind! Yet he was considered to be one of the up and coming managers for that company because he was doing such a good job!

The better farmers in that area would be well served to have a good consultant working with them.

Soil tests are not the whole story

The more soil tests I pull, the more I know about a particular field. But the more plant samples I analyze, the more I realize the soil test doesn't

always tell me what I need to know, or want to know. In the last few years, I have pulled many soil tests, then later when the crop is growing pulling plant samples on those same fields. In many cases we are seeing crops growing on high soil test level soils that are unable to put those nutrients into the plant. The question then becomes, "why not"?

There are so many possible answers to that question that we cannot begin to answer it here. Some of the obvious are: Compaction, dry soils, high levels of some nutrients (Phosphorous vs Zinc for instance) locking up others. High pH soils locking up micronutrients. High pH means different things, depending on your soil type. For instance: a pH of 6.5 might be almost ideal on most mineral soils for corn, soybeans, wheat and other crops. That same pH on a true "muck" soil will lock-up almost any micronutrient in that soil, thus creating a micro shortage, because someone limed it too much, or in some cases it might be underlain with Marl.

In fairness to those farming true "muck" soils, many times they are underlain with "Marl", a liming agent. That makes it very difficult to correct the soils problem.

In other situations, the farmer didn't over-lime the soil, but the soil is closely underlain with limestone, giving it a naturally high pH.

These situations all affect how a crop will respond on a particular fertility of soil. There are many others that come into play, and can be instructive in trying to analyze how a crop is responding to a particular situation.

We are finding

I hope you understand what I'm trying to say here. What we are finding: It doesn't matter how much fertilizer you put on your crop**. The only thing that matters is what gets into that crop!** You can put all the fertilizer in the world on that soil, but if it can't get into the crop, it didn't do you any good at all.

It has been interesting to me for a long time, there are soils you can apply potash, and apply potash, and you only raise the levels a slight bit. This reaction is well known in the fertilizer industry, and they recognize it readily, and talk about it. They talk about base saturations, and apply the potash philosophy accordingly.

On the other hand, Phosphorous is not a "Base" material, but is known to take a lot of material to raise soil test levels to a certain level. What we are seeing is that some soils take a little "P" and the soil test levels respond

rapidly to that application. Other soils take large amounts of "P" and never show the increased levels.

That effect is present in many of the Canadian soils where they have applied 300# of 0-46-0, or 11-52-0, for years with a corn crop, and the soil test levels never get much above 15-16 lbs/acre. It doesn't matter whether they use a Bray extractant, or a Sodium Bicarb extractant, the test levels never climb for "P".

We see the same affect in parts of Michigan, Ohio, Illinois, Indiana, and other states. In Ontario where we typically see the effect they have heavy, high pH soils, just as does Ohio, Michigan, and other areas such as Texas. On the other hand, we have soils in Indiana that are in nice shape pH wise, they are sandy loam soils, and you can dump as much "P" on them as you chose. That is the only way you will have a high "P" reading. Stop applying "P" and within a couple of years your levels will read "low", whether you grew a crop on that field or not!

Okay, so you have applied just as much "P" as the guy with the high reading has applied. Why doesn't you reading look like his? In most cases that soil still has as much "P" as the other soil, it just doesn't show up on the soil test. Does that mean you should continue to apply large amounts of Phosphorous to continue "building" your soil test levels? Not necessarily!

If you have been doing a good job of applying nutrients, and your levels are still low, a plant analysis may be very instructive to you. You may find you are getting more nutrients into the crop on those soils than you are able to accomplish with your high soil test readings. If that is the case then you need to re-evaluate what your fertility program may be doing to you.

One of my customers has been on the light side with his "P" applications for years (maybe as many as 15 years). Upon reading his soil test levels recently, I was amazed at his high "P" levels. I confirmed that he had not been applying additional amounts of "P". His levels had actually gone up during that time period. Upon pulling some plant samples, the corn was actually getting excessive amounts of "P' taken into the plant.

Now, you know and I know, and he knows, that eventually his levels of "P" will start to go down (even though they haven't for 15 years). His current levels are about 2 ½ times what we as an industry feel is necessary to raise 100% of our fields yield potential of corn. So the question becomes:

1) Should he begin applying the "P" the industry feels he should be applying currently?
2) If not, how long should he wait?

3) Years ago his tests weren't as high, prior to the fertilizer company starting to dump Phosphorous on his soil.
4) How much too much did they sell him?
5) What levels should he shoot for in the future?

Upon my father's death a few years ago, we sat down with the long-term tenant and went over the soil tests, because he had informed us he wasn't going to be farming the farms anymore. Upon examining the soils reports that were just over 2 years old, we discovered that there was enough "P" to raise 6-8 times the fields yield potential of corn.

That means the "P" applications had gone far beyond the fields' ability to produce a crop. The potash readings were just as wild. Actually, the only thing the farms were lacking was a few of the fields needed liming!

Even with high crop prices

Even with high crop prices, you can not afford to be applying fertilizer in those amounts! Fertilizer doesn't necessarily raise more yield. **Fertility** raises more yield. What is fertility? It is the nutrients, the soil microbes, your tillage system, you planting system, the entire soil system, and profile working to the point that the crop you put into it will thrive.

I have seen, and I'm sure many of you have, as well, you would drive by a particular field after it was plowed or chiseled, and it just looked dead, before a crop was ever planted. Across the fence a different farmer appeared to have done the same practice, but his soils looked very healthy, and he consistently produced a better crop than the one with "dead" soils. What is it that was different about their farming technique?

Whole new world out there

In many cases, when I was managing the local fertilizer plant, I could tell you what those differences were. It points out, like in any occupation, there are some that do better at their professions than others.

Information, and critical thinking, on a different level than in the past, give you a chance to advance your operation to a level that allows you to be comfortable, while some of your neighbors may fail. Just because they fail doesn't mean you should be one of them!

To this end

We at LFB Solutions are continuing to conduct replicated research plots throughout our immediate market area (primarily Michigan, Indiana). Those are the official company sponsored plots. Many of you are conducting research projects on your own farms because of encouragement and cooperation from us at LFB Solutions. At times it gets downright frightening what some of you guys can come up with!

LFB Solutions expansion

Something that can be just as frightening is the ability to keep up with the demand for our products. This past spring we shipped to North Dakota, South Dakota, Illinois, Indiana, Ohio, Michigan, and North Carolina.

We had inquiries from other states such as Kentucky, Tennessee, Iowa, Missouri, Minnesota, Kansas, and Wisconsin. We have various plots with farmers that we shipped test materials to for their plots.

We have been very fortunate at LFB Solutions to have customers, prospects, and other interested people to work with, and to give us other ideas than our own. Some of you have had truly “wild” experiences because of contact with us. In some cases, we were too far away for anything except to offer opinions on how to handle what you were going through. It has still been a wonderful experience for us, and we appreciate you. At times more than you can imagine!

More than anything, you need to learn more about the workings of your soils. Not so you can take over the planning and analysis, of your soils. But so you know when you are being sold a bill of goods.

Thanks again!

LFB Solutions, Inc.
517-812-2483
Fertilizers and Crop Consulting