October 2009

Pasture News

LaGrange County Soil & Water Conservation District
910 S. Detroit St., LaGrange, IN 46761
260-463-3471 ext 3
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October Pasture Walk
Hosted by John & Cathy Belork
4435 E 500 N, Hamlet, Indiana 46532
Tuesday, October 13, 2009 – 1:00 p.m.

TOPICs: "Concentrating on Grass-Fed Limousins"
"Soil Fertility & Micro Nutrients"

Contact the office at 463-3471 ext 3 to make transportation arrangements. Reservations must be made by Friday, October 9. Remember the office will be closed on Monday for the Columbus Day Holiday and we will be leaving early on Tuesday in order to get to Belork's by 1:00 p.m.
Please call the office and make reservations, whether you are riding with us or not. Belork's will be furnishing lunch and need to know how many to prepare for. Call the SWCD office to make your reservations.

September Pasture Walk hosted by Floyd D. Miller

Tuesday, September 8, was another great day for a pasture walk, a little grey and overcast with the sun peaking through occasionally, but very humid. Martin Franke of the LaGrange County SWCD welcomed about 25 graziers to the Miller Farm and thanked Floyd and his family for being this month's host. Martin shared a comment from Vance Haugen when speaking at a conference about pasture walks. Vance stated that it is nice to have 50, 60, even 70 at a pasture walk, but the best ones are those with about 25 in attendance. It was agreed this was a good number, but as the pasture walk progressed another 15 joined the group. Nevertheless, host Floyd kept the discussion well focused for such a large attendance.

Introductions: Martin introduced Annie Sprague and Samantha Henschen who are both working part time in the office, replacing Jennie Holcomb who left to take another position. Richard Yoder, SWCD board chairman, was also in attendance. Martin mentioned that Mike Holcomb, habitat chairman for Pheasants Forever and another SWCD supervisor, would be arriving later to discuss the warm season grasses that were planted on one of Floyd's fields.

Announcements:

- The October pasture walk is scheduled on the Belork Farm near Hamlet, Indiana. The SWCD will try to provide transportation for anyone who would like to attend,

but reservations need to be made early. The Belork Farm is almost a two hour drive from LaGrange. Cathy Belork has promised to feed us some of their Limousine beef upon arrival at the farm, along with home-made pie.

- Dennis Wolheter reminded the group about the upcoming February 5, 2010 Grazing Conference. The program is set, and over 40 exhibitors have already registered for booth space. Registration forms will not be coming out until immediately after Christmas, so watch for them in the mail.
- Fay Earnhart, NRCS District Conservationist, had some hand-outs on potential funding opportunities through the Farm Bill. There were also additional hand-outs, along with apples, pop and water for everyone to pick up.
- The Pasture Walk special from Honeyville Feed is 5% off on pasture mineral that is ordered today from Lamar Bontrager.

The Walk:

Floyd welcomed everyone to the September Pasture Walk. Floyd and his wife, Joanna, have 4 children ages 4, 7, 9, and 10 with three of them in school. He grazes butcher steers, with about 19 Jersey and Jersey-cross animals. He referenced some books he had available for sale by David Kline – "*Great Possessions*", plus two by Louis Bromfield – "*Malabar Farm*" & "*Pleasant Valley*". They are also for sale in the Miller's store-FD Miller Feed & Supply. Floyd has always liked David Kline's writing style in Farming Magazine. David has referenced Louis Bromfield in his writings. They have very similar writing styles and are very interesting to read.

Floyd stated he always tries to keep in mind "Maintain the long term vision, not the short term setback". Sometimes it is hard to do that, but he reminds himself of that often as he continues with his calf-raising enterprise. This is the second year he has been raising bull calves on his own farm, but he has been raising calves for three years. In the first year he had the calves on other farms and lost money, but gained experience and knowledge. It made him realize that all of the available feed supplements were not always necessary or even wholesome. If you improve the nutritional value in the soil, your animal health improves along with the condition of the soil. Right now, he has mostly Jersey bull calves on nurse cows. He feeds no grain, uses no antibiotics, and sells the steers for grass fed beef. There is not as much shine as he would like to see on his young stock, but he feels that will improve over time. Floyd also thinks that as the soil on his farm improves so will the health of his family and his animals. With that in mind, he announced that Gary Zimmer, co-founder of Mid-Western Bio-Ag, will be speaking at the store at 6:00 p.m. on Tuesday, September 15. Gary will be talking about the importance of good soil fertility. Gary has written a book entitled "*Biological Farmer*".

Floyd has about 30 acres on his farm. Field #1 is approximately 2 acres and was planted with Highland Pasture Mix in the spring of 2008. As Floyd uses this area as a sacrifice area through the winter, the soil is compacted here, but it is improving; the soil life is coming back. There was a weed in the field with a white flower that Ray Yoder thought was a member of the Penny Cress family. This is an indicator of severe soil compaction. Any plant with white flowers can be an indicator of soil compaction. Floyd wants to use a deep ripper to tear up some of the fields this year. He is only two years into improving the soil on this farm and is already seeing some improvements.

The beef steers were in the next field. The cows have been grazed in this paddock 3 or 4 times in 2009. He normally moves them once a day using a back wire. There are 4 nurse cows with the calves. The calves are usually on the nurse cows for 4 months. Two of the nurse cows are at the neighbors. The neighbors get the milk until it is time to dry them off and Floyd doesn't have to feed them during this time. He feels like this is a win-win situation for him and the neighbors. His first year of operation, Floyd bought bull calves from Marvin Kauffman; this year he got them from Galen Miller. Both years he has raised them for Allan Bontrager. Floyd recognized that while both farms have good genetics in their breeding stock, Marvin Kauffman's calves seemed to thrive better in a grazing environment. For whatever reason, the first time cows are used to nurse calves, their acceptance of this situation usually comes pretty quickly. After that, adding a second group of calves to the same cows usually takes longer – up to 5 weeks to train the cows to let the calves nurse. This is a new experience for Floyd, so he is not sure what the weight of the calves is when he gets rid of them – probably 1000 – 1100#. He has

Jerseys this year, because that is the breed that Allan Bontrager wanted. Floyd is not certified organic, but tries to farm naturally and biologically – beyond organic, as he says.

The Miller family recently moved their garden to a new area. He put soil builder on the old garden area and will probably move it back there again next year. They started a new wood lot about three years ago and have some bee hives set up. They are using more honey to replace sugar in baking and cooking.

Pasture field #7 was frost seeded with red clover into existing pasture in February 2008. The original pasture seeding was done in 2000. He used no-till to plant clover, chicory, fescue, orchard grass and alfalfa. The clover has filled in a lot. There is less weed pressure here. He is trying to get more diversity in his pasture fields. He asked for input on "short term versus long term rotations", the pros and the cons. Jerry Brunneti has said that the longer the rotation, the better plan diversity is achieved. Different forage plants contain different benefits for the grazing herd. Shorter pasture rotations tend to have more clovers; longer rotations have more grasses. Lavern Bontrager asked if the soil could be low in sulfur. Soil tests show that this is indeed the case. Another indicator of sulfur deficiency is in the rust color on the plants. Floyd has made one cutting of hay off this field and grazed it three times this season. You either spend money on seed or money on soil fertility. There is a big difference in this field from last year after applying Bio Cal. He grazed it last year and it came back slowly. The addition of Bio Cal has greatly improved the speed of forage re- growth this year. He wants to keep the cows out of here in September and then graze it again in October. Floyd is letting the fence row along this field grow up in order to create diversity in the plants, create a windbreak for winter grazing, and to provide some wildlife habitat.

In the next field Floyd is using fiberglass posts and alternating them with some Gallalgher Insultimber wooden posts that he had in the store that are not supposed to need insulators. A comment was made from the group that some people have experienced voltage "leakage" through these posts into the ground when wire insulators are not used.

Floyd installed waterlines in 2008 coming out of the barn and across all the fields, but wants to take them to the back part of the farm. They are all buried 30-36" deep, so he can use them in the winter. He has not drained them and has not had any problems with freezing so far. Because of the current location of water lines and tanks, the cattle need to travel too far to get a drink. This causes them to trample more pasture forage than is necessary, which makes Floyd desire to extend his water lines further back. He is trading a steer for a windmill that he will be getting this fall. This is the windmill that was on his grandfather's home farm. He may have to rebuild some of it, but it is in working order. They used a dousing rod to find a spot for the windmill out behind the store. This may or may not be a good way to determine the location for the windmill and a deep well.

Field # 6 needs to be re-seeded next year. It is an old permanent pasture field of fescue. It looks better since he mowed it. He wanted to plant turnips here this fall, but didn't have enough good pasture this year, so he didn't tear it up. He is not sure what he is going to plant here, maybe Sudan, oats, peas. Pete Lehman suggested stockpiling the fescue in this paddock for winter grazing.

Floyd rented Field #5 to a neighbor this year who used the field to plant a crop of field corn. After renting the field and using some figures from Mid-Western Bio Ag, Floyd figured that the corn crop will take about $374.00 worth of nutrients out of the 4.2 acre field. He received $378.00 for the rent, which makes an almost-even exchange. He probably will not rent the ground again, and will instead use it as another grazing paddock.

Field # 4 was planted to corn in 2008. He planted Triticale as a cover crop and plowed it down last spring; then seeded it to orchard grass, fescue, alfalfa and clover with oats and peas as a nurse crop from which he harvested 16 round bales. He grazed it for 4 or 5 days in August and then mowed it. He will not graze it again until after the ground is frozen in early winter. It has some brown spots in it that didn't grow. He applied starter fertilizer when it was seeded; sprayed with fish oil after taking off a hay crop, and then added gypsum two weeks ago. Soils maps show that there are light soils all over the farm.

The next stop was at Field # 3a where Pheasants Forever had planted warm season grasses and forbs last year. Before they planted the warm season grasses, Floyd had planted Master Graze as a cover crop for baleage and then grazed it for one week. The soil was too loose to get a good seed bed for the warm season grasses. Floyd had plowed and cultipacked it before planting. There are some wildflowers scattered through the 2 acres, but not much else. It has been mowed and spread with gypsum. Mike Holcomb, habitat coordinator for Pheasants Forever, stated that the policy of the chapter is to plant 5 acres of warm season grasses for organization members at no charge. The key to a good stand of warm season grasses is patience. It usually takes three years to develop a really good stand. One factor that has been hard on this stand has been that the field was fully tilled before the warm season grasses were planted. Best results are accomplished when preparation includes mowing, spraying and seeding with a no-till drill. It costs about $180 an acre to plant warm season grasses. The goal of Pheasants Forever is to increase wildlife population by increasing the diversity and amount of available habitat. Floyd is going to be harvesting the warm season grasses and using them for pasture.

Mike will be coming back out to inspect this field once there has been a good hard freeze and the soil temperature is below 50 degrees. If he does not see many warm season grasses, Pheasants Forever will be re-seeding using the no-till drill. It is not recommended to fertilize the warm season grasses the first year. In that first year, the plants need to put all of their energy into root structure development. At times, warm season grass roots' penetrate the ground from 12'-15' (***feet***, folks, not inches!-that provides outstanding erosion control, and excellent drought resistance). They really don't start growing until in the second spring or early summer when the weather begins getting hot, and will put on seed heads in August and September. There were 5 types of grasses planted here – Big Blue Stem, Little Blue Stem, Switch Grass, Indian Grass and Virginia Wild Rye - plus 9 kinds of forbs. PF plants 4-1/2# of warm season grasses per acre. Floyd stated that success with this planting will come with faith and his long term vision – he just got impatient this time.

Field 3b had corn in it in 2008, then was seeded with cereal rye as a cover crop and then seeded to grazing corn in the spring of 2009. In August, Floyd seeded this field back to pasture again. It was planted to chicory, alfalfa, clover, fescue and orchard grass with Triticale seeded at the same time as a cover crop for over winter. Floyd applied gypsum here last week. He had some erosion here due to the heavy late season rains.

As we were walking back to the barn, we passed some pigs that Floyd is raising. He asked if they would tear up the pasture if he turned them loose without ringing them. Everyone agreed they would ruin a pasture, roots and all, very quickly if allowed to root.

Back at the barn, everyone enjoyed cookies provided by Floyd and his family, along with some good fellowship and sharing of ideas. Thank you to the Miller Family for hosting a very successful September Pasture Walk!

THE BIG FOUR'

(An excerpt taken from an article which appeared in ACRES, August 2009 written by Gary Zimmer and Becky Brown – complete article will be shared at the Pasture Walk in October)

There are four indicator minerals in plant tissue testing that do tell a large part of the story of what's happening on the land: *calcium, boron, phosphorus and magnesium.* These are indicator minerals because to get them up to the levels where they need to be takes a complete biological system. Grow or buy forages where these four minerals are high in the plant (for that plant species), and they will be the most palatable, digestible feeds you can deliver to livestock. Let's look at each individually.

Calcium is the "trucker" of all minerals, meaning it largely governs plant availability of the other minerals. For this reason we consider it the most important soil nutrient. Among other attributes, calcium effects energy and digestible energy in plants and is essential to microbe health. There is also a

strong correlation between plant calcium levels, legume growth, soil health and quality forage.

A vital baseline to biological farming is to provide enough soluble calcium to the plant (with high nitrogen, potassium or magnesium levels, calcium levels may not be adequate in the plant – the goal is a 1:1 ratio at around 2 percent in feed tests). Just because the soil pH is within the ideal range (6.5-7) does not mean you will automatically have high plant uptake of calcium, that additional calcium does not need to be applied, or that the soil doesn't need lime. Providing a diverse supply of calcium sources is highly beneficial, even if Ph is at a good level.

There is no one-size fits-all when it comes to different sources of calcium for different soil situations. However, smaller amounts more often seem to work well on most soils. Field-grade line is insoluble and performs well with low pHs. Calcium sources include calcium nitrate, gypsum, Bio-Cal, OrganiCal and HumaCal, rock phosphate (if you also need phosphorus), burned lime and activated calcium (note that not all of these are organic – choose the right source for the situation). Often, supplying a humate source with calcium yields good results.

Spraying on a few ounces of a plant-stimulant calcium may help by serving as a short-term fix, but it won't do in the long run. Remember, an alfalfa crop removes 250 pounds of the available soil calcium.

Boron and calcium seem to work together. We like to call calcium "the trucker of all minerals," and boron "the steering wheel." Boron is needed in relatively small volume but governs calcium uptake and sugar movements, both critical factors in producing more plant energy and plant pectins (the highly digestible carbohydrate that is closely associated with calcium). Boron is relatively easy to get into plans and to manage. It's an anion (meaning that it is negatively charged), so it's a highly soluble/leachable mineral, and thus readily plant available. In our Midwestern soils, we normally add one pound per acre per year to fields, and sometimes more based on soil type.

Phosphorus at high levels in the plant is a great indicator of healthy, biological active soils. Phosphorus exchangeability and organic matter are needed by the plant at high levels, but large amounts of non-plant available phosphorus are often tied up in the soil. Commercial phosphorus dumped on the ground does not simply get sucked up into the plant as nitrogen and potassium do. In fact, putting on soluble phosphorus has a negative effect on plants' symbiotic interaction with mycorrhizae, the soil fungal group that aids in getting phosphorus into the plant.

We like to use natural rock phosphates, certain plant species, and biological activity to extract the phosphorus and convert it into a chelated organic, plant available form. Phosphorus and magnesium are synergistic, team-mates, and should be at 0.35 percent or higher on feed tests. These are energy minerals, both vital to production through photosynthesis and also to transportation. These two minerals are extremely difficult to get into the plant.

Magnesium is an indicator of many things, a major storyteller of soil balance and health. Magnesium levels can be high in the soil and yet low in the plant. Magnesium carbonate (dolomitic lime) isn't plant-usable unless something breaks it down such as soil biology acids, plant extraction, or sulfurs.

One more issue to keep in mind: there is an inverse relationship between potassium and magnesium. The higher the soluble soil potassium, the more potassium and the less magnesium the plant takes up. In order to get high plant magnesium, you can't overdo potassium. Good biological activity along with a variety of plants to feed soil life is part of the success of getting magnesium into the plant.

Sulfur is needed to make proteins and build humus in the soil. Our Midwestern Bio-Ag consultants have suggested that we should really talk about "The Big Five" rather than The Big Four, because sulfur should be added to the list. However, in order to get magnesium uptake in the plant, sulfur needs to be in good supply, so you can't get ideal levels of The Big Four without good sulfur levels. Each year a minimum of 25 pounds of sulfate sulfur needs to be added to most soils. If you are foliar spraying, adding Epsom salts ($MgSO_4$) is a good idea on most farms.

Little Elkhart Watershed Management Plan Approved

Approval has been received by the Soil & Water Conservation District (SWCD) from the Indiana Department of Environment Management (IDEM) on the completion of the addendum to the watershed management plan. This plan was approved for the sub-watersheds of Little Elkhart River/Row Eden Ditch, Little Elkhart River/Harper Ditch, Little Elkhart River/Mather Ditch and Little Elkhart River/Bonneyville Mills. Now the project will be moving into the implementation phase. Cost share funds are available to apply best management practices (BMP) in the four sub-watersheds in the addendum, plus in the other three sub-watersheds in the Little Elkhart River watershed – Bontrager Ditch-Emma Lake, Bontrager Ditch-Hostetler Ditch and Little Elkhart River Ditch-Topeka. Best management practices that could be funded under the grant include fencing livestock from streams and ditches, alternative watering systems, filter/buffer strips, pasture plantings – to name part of them. If you live in one of these sub-watersheds, please contact the SWCD office and we will get you in contact with the cost share coordinator. **A complete watershed management plan is also available by contacting the SWCD office.**

Post Driver Available for Rent

Is it time to build new fence or repair an old one on your farm? If so, the LaGrange Co. Soil & Water Conservation District has a post driver available to rent. Cost of the rental is $1.25 per post with a $25 -$50 deposit, deducted from the total bill. Delivery and pick up is also available for $50 round trip. Contact the SWCD to schedule the post driver.

Last Pasture Walk of 2009 – Scheduled for November 10

Mark your calendar and plan on going to **Forrest Keefer's farm** for the last pasture walk of the year. Forrest lives in Noble County near Wawaka. Watch for more information in the next issue of the Pasture News.