AGChoice Newsletter

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Inside this issue:

Special points of interest:

- AGChoice Welcomes New Crop Scout
- AGChoice Welcomes New Salesman

Grid Sampling and Lime
Real-World Results

Jason Sutterby, Precision Specialist, Hepler & Moran

In the world of agronomy, soil fertility is without question one of the key tenets of growing productive crops. Soil sampling and analysis is the standard by which we measure or quantify soil fertility parameters. Sampling methods vary from simple to complex, starting with composite sampling and ranging to grid sampling on the more intensive end.

Grid sampling is not a new concept — in some areas of the country, it has become standard practice. In this corner of the world, however, it has been tried in a few places, but for the most part, it has not been widely adopted. I would venture to say the primary reason is the lack of availability of application equipment. At the most, commercial spreaders may have had capability to spread one product variable rate, requiring multiple passes to apply phosphorus and potash fertilizers. AGChoice has made the commitment to precision application over the past couple of years by purchasing multiple-bin spreader trucks for dry fertilizer application of up to four products in one pass. Now we can apply DAP, potash, zinc, and sulfur in one pass to meet the nutrient prescription for each field.

I was hired as a precision specialist in early 2012 to assist in growing the grid sampling and variable rate application program. We have been fortunate to have tremendous acceptance and adoption of the program with our customers. With the high cost of inputs and the potential of the seed hybrids and varieties, it just makes sense to try to be more accurate in spending our fertility dollar.

Continued On Page 2...

Continued From Front Page... One of the most commonly asked questions I get is "Does it pay??" For me, any soil fertility discussion needs to start with soil pH. When we grid sample, we can then apply variable rate ag lime to correct soil pH. This is the place we need to start, and it is also where we can see immediate payback.

The standard application of ag lime for many years has been around two tons per acre made as a flat or blanket application. As the acres and data come across my desk, I feel it is important to analyze what results we have seen in the past couple of years. I am still in the process of crunching numbers, but the following data comes from over 10,000 acres worth of grid sampling done right here in southeast Kansas and a bit across the line in Missouri.

AGChoice Variable Rate Lime Savings

Lime, variable rate
(60 ECC or 480 ENM)

SUMMARY OF DATA

Total Acres Grid Sampled:	10,508.86
Average Tons Lime/Acre:	0.76
Percentage of acres where variable rate lime pays for cost of grid sampling (Lime only, no spreading, at $13/ton delivered cost)	86.6%

You can see that almost 87% of acres sampled will save the grower enough money in lime to pay for the 4 year Intensive Soil Sampling program. The other 13% will most definitely see increased productivity and herbicide response, as they have a high need for lime application. The average lime application rate is only 0.76 tons/acre. I am consistently surprised to see fields with one corner that needs no lime, and another corner that might call for three tons/acre.

In summary, I am proud to offer to our growers a program that will provide immediate benefit. It takes a little extra doing, but the harvest is definitely worth the investment. I would anticipate continued growth of the program, which will lead to more availability of precision application equipment as well. If you have any questions about how this program can fit your operation, ask at your local AGChoice or contact me at 620-238-2813 or jsutterby@mfa-inc.com.

The AGChoice newsletter is coordinated by Linda Heady, Tammy Peak, and MacKenzie Oswald. It is printed through MFA in Columbia, MO. If you have any agronomy, feed, seed, animal health, or grain topics you would like us to address, please call Linda at (620) 421-5110 or Tammy at (620) 396-8554 or send an e-mail to lheady@mfa-inc.com or tpeak@mfa-inc.com.

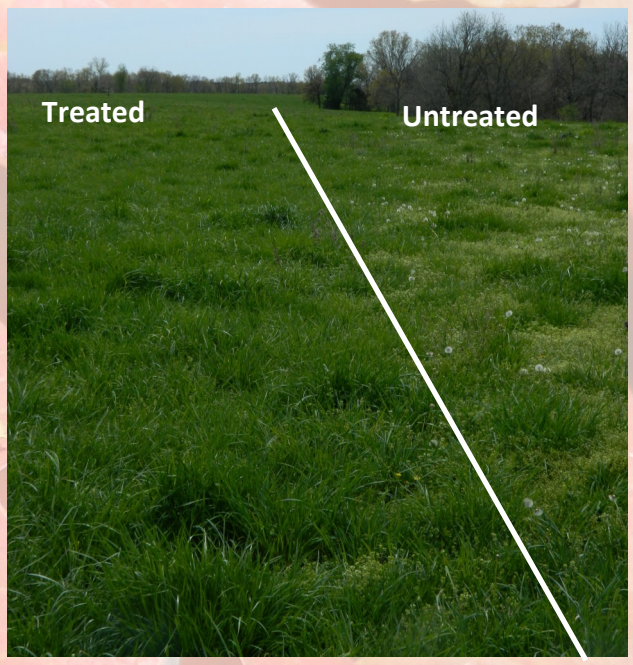
Control Next Year's Thistles This Fall!

David Moore, CCA, Range and Pasture Specialist

We basically have two types of thistles in our area – musk and bull. Both are biennials. Seeds from this year's thistles will germinate this fall and form a rosette. Next spring this rosette will enlarge and the plant will bolt upright and bloom again. With the number of thistles we have had this year, we need to anticipate a huge crop next year.

By spraying 1 quart per acre of GrazonNext HL late this fall (November 10 – December 20) we can eliminate the vast majority of next year's thistles! This works best in pasture and hay ground that is grazed low enough that the rosette is clearly visible and accessible to herbicide application. For best results, spray when daytime temperatures are 45 degrees or higher.

A major side effect of this application is that it also controls a large portion of our winter annual weeds, which may or may not be emerged and visible at the time of application. This was very apparent on the thistle plot I sprayed last year (December 5, 2012). The picture below clearly shows a line where the treated field meets the check strip. Before you even notice the absence of thistles and winter annuals, you will notice a significant (2-3 times) increase in grass in the treated area!



Take advantage of this slower time of year - spray 1 quart of GrazonNext HL per acre plus Astute surfactant (1 quart per 100 gallons of water). The net result will be fewer weeds and more grass! It also takes some pressure off of you next spring when there are many things that need your time and attention…

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Why Should You Sample Forages?

Rowdy Layton, Livestock Consultant Ag Choice Chelsea OK

Fall is upon us, and winter feeding is right around the corner. Now is a perfect time to evaluate your forages stored for winter feeding. The main reason to test your hay is to increase profitability and animal performance. If you have high quality hay, you may be overfeeding and costing yourself more money than needed. On the other end of the spectrum, you could be underfeeding and costing yourself gains, breed back, and overall animal performance. This basic forage test will tell you dry matter, percent protein, energy and fiber.

Values will be expressed on an as-fed value and dry matter basis. Dry mater basis values will allow you to compare different forages on the same level. CP (Crude Protein) tells the protein value of the forage in question. ADF (Acid Detergent Fiber) is an energy value and as the ADF value goes up the energy value goes down. The NDF (Neutral Detergent Fiber) value is related to feed intake, and as the value goes up the intake of the forge goes down. TDN (Total Digestible Nutrients) is the sum of all digestible nutrients.

Grass hays can range from 4% - 20% Crude Protein depending on the type of grass and stage of maturity. Each stage of beef production requires a different level of protein and energy to maximize performance. By knowing the value of your forages, you can match your level of production to the most suitable hay you have.

Having a forage test will allow you to make an accurate decision about your winter feed needs. If your hay is high quality, you may not need any additional protein or energy. However, it may be lower than you think, and your cattle may not be getting the proper nutrients they need to maintain proper gain, adequate milk production, and timely breed back. We at AGChoice will be glad to assist you in testing your forages whether it is helping take samples, sending them to an accredited lab for analysis, or helping you interpret your results. We have many options for balancing your rations using your forages. If you need protein we can use Cubes, Lick Tubs, Salt mixes, and QLF. If your forage is short on energy, we have Cattle Charge and Stock Grower. We can even build a custom supplement designed to fit your operation. Please feel free to contact myself or any AGChoice location with any questions you may have.

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Shrink Management

Jon Roberts, Area Sales Manager Livestock Products

One of the most exciting times in the life of a cattleman is on sale day. For some producers, it may only come around once a year. Their toil and struggle, enduring bone numbing blizzards, and scorching summer sweat is finally coming to fruition. They are about to be rewarded for their tireless effort that has spanned four seasons of husbandry. With feeder cattle prices recently reaching historic highs, it makes sale day an especially rewarding and fulfilling conclusion for the cattleman's leg of the Beef journey. With the sale of your cattle being a critical part of the puzzle, it is imperative that you manage them for optimum profitability. One major aspect of the management plan is controlling shrink when the cattle are sold. The vast majority of cattle in our area are merchandised through a conventional auction barn, but the principals still apply for any cattle sold by weight. Theories on shrink can run the spectrum from making them as heavy as possible by any means necessary; to having the cattle as gaunt as possible in hopes of achieving the highest price per pound. I would advocate a path down the center that would benefit buyer and seller alike. Cattle, when sold, that appear to look full or distended, possibly got that way by being denied food and/or water for a period of time prior to selling and then afforded the opportunity to partake of copious amounts immediately prior to taking the weight. The thought for the seller is that his cattle weigh more than they might have weighed under ordinary conditions. Two things are likely going through the mind of the buyer as he gauges the value of the cattle. 1) These cattle are "tanked up." I'm buying a whole lot of something that will be on the floor of my trailer after the cattle walk off. 2) These cattle were obviously denied access to feed and water and subsequently gorged themselves, thus elevating the stress load of a calf that is already in a stressful situation of being thrust into a strange environment that will assuredly bring with it a diet change and exposure to disease. Consequently, the added weight will not overcome the lower price. In looking at the other end of the gamut, perils of equal magnitude exist. If, in an effort to reach the pinnacle of the coffee shop bragging board on price per pound, you elect to shrink your cattle to the point there is more under your fingernails than on the floor of the trailer when these shrunk cattle are transported, you probably over did it. In extreme conditions, cattle can lose greater than 10% of their body mass in 24 hours. Other factors that affect shrink are the temperament and disposition of the cattle. Nervous cattle that are easily excited will excrete more rapidly than calm, docile animals.

The ideal situation for buyer and seller alike, is to have the cattle eating and drinking with as much uninterrupted access as possible and as close to their previous routine as possible.

Continued On Page 6...

Continued From Page 5... My advice is to acclimate cattle to some sort of concentrate prior to selling them and offering feed and water to them, even at the auction barn prior to selling them. If you typically feed first thing in the morning, I would not deviate from that on sale day. The product of choice is Cattle Charge. The high fiber, low starch formulation of Cattle Charge is an excellent choice for added safety. It has the vitamins, minerals and additives essential to bolster the calf's immune system. Cattle Charge is highly palatable, and cattle consume it readily.

If you intend to sell your calves right off the cow, establishing them on a creep fed ration of Cattle Charge will pay multiple dividends

- The 4 to 1 conversion on Cattle Charge will provide cost effective gains that will put bloom on your calves.
- Creep feeding can even up your calf crop for larger lot size and reduced discount on singles.
- Creep fed calves will have an added level of satiety that can have a calming effect on cattle, thus mitigating their level of shrink.

I would encourage you to stop by your local AGChoice location and visit with them about feed and feeder options to buy or rent. AGChoice has the products, services, and technical support to sculpt your cattle and represent them in a fashion that epitomizes your genetics and effort. From all of us to all of you, I hope your next sale day is the best one ever!

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Fall Herbicide Considerations

Brian Creager, CCA, Manager of Emporia Agronomy Center

If you are a grain farmer, you have had a wide variety of challenges thrown at you this year: a wet spring that delayed planting, trying to get two months worth of planting done in two weeks once it did dry out in mid-May, only to wonder if it would ever rain again. Then, in some areas when it started raining in late July, it forgot to shut off causing flooding. Oh, and don't forget the tough weed issues we faced amongst all the other challenges Mother Nature threw at us.

While we can't control Mother Nature, we can take steps in the fight against tough weeds to increase our chances for success. One key to this success is to start clean and stay clean. This can be accomplished with herbicides, tillage or a combination of the two. Another key to success in the tough weed battle is the use of multiple residual chemicals with different modes of action in your cropping program.

Continued On Page 7...

Continued From Page 6... Some of the tough weeds that start in the fall and cause us problems in spring include marestail, henbit, chickweed, dandelion, mustards and prickly lettuce to name a few. In our area, several producers had issues with these weeds and when combined with the wet spring we had, they had a challenge getting their ground ready for planting. Consideration should be given to controlling weeds early in their lifecycle.

One way to control fall emerged weeds is through the use of herbicides. Fall emerged weeds are generally easy to kill when they are small, and this is a good time to consider using a residual herbicide as well. Great fall weed control success can be achieved when 2,4-D or a mix of 2,4-D/dicamba and glyphosate is paired with a residual such as metribuzin, Autumn or Valor. These residuals leave your options open if you are undecided on whether you will plant corn or beans in a particular field. If you know a field is going to corn, then Atrazine is another option. Another benefit of a fall residual is that in most cases the fields stay weed free until planting time. Even if tillage is completed following harvest, weeds can still get a start, and a fall herbicide application may still prove beneficial.

Timing of a fall herbicide is important as well. Once harvest is complete, it is tempting to start the sprayer up and start spraying right behind the combine. However, to have success in controlling fall emerged weeds, it is crucial to wait until soil temperatures have dropped to around 50 degrees as weed emergence typically stops then. In our area, this is typically the mid-November to Thanksgiving week time frame.

Figure 1. Fall-applied herbicide applications targeting winter annuals and dandelion can help to provide a weed-free seedbed in the spring (treated area on the right).

Sometimes this window can be fairly short, so it's best to start planning now for what your fall herbicide program will look like.

Be sure to stop by your local AGChoice retail location prior to harvest to discuss fall herbicide options with them to make sure they will have the products you want when the time comes to apply them.

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Gear Up Now for Brush Control

David Moore, CCA, Range and Pasture Specialist

Late summer and early fall is a great time to spray brushy species. We usually look at a window from June through the end of September as an effective time to spray the perennial, woody weeds. Late August and through September may even be a tick better, as the plant prepares itself for winter. During this time frame it moves nutrients and carbohydrates from the above ground portions of the plant to the root zone. As a result, we get very good movement of herbicide along with these nutrients. Thus, the plant itself assists you in your efforts to control it.

Choosing the correct herbicide, as always, is critical for success. Remedy Ultra, PastureGard HL (Remedy Ultra + Starane) and Surmount (Tordon + Starane) are common choices. Use the list below to choose the correct herbicide:

- Remedy Ultra 2 -4 pints per acre – Beech, Elderberry, Hedge, Maple, Oaks, Russian Olive, Sumac, Willow
- PastureGard HL 1.5 pints per acre – Hedge, Poison Ivy, Sericea Lespedeza
- Surmount 2-3 quarts per acre – Ash, Beech, Cottonwood, Dogwood, Elm, Hackberry, Hawthorne, Mulberry, Persimmon, Sumac

Check the label for specific rates for each species. A good combination for multiple species is 1 – 1.5 quarts of Remedy Ultra plus 1 – 1.5 quarts of Surmount. Don't forget to add 1 quart of Astute surfactant per 100 gallons of water. Use of a good quality surfactant is as important as choosing the correct herbicide.

For fencerow spot spraying, I like to use a 2% mix of Surmount – 2.5 ounces of Surmount per gallon of water, plus surfactant. Another good choice for killing bigger trees (up to 6" in diameter) is to apply a basal bark treatment. Mix 1 quart of Remedy Ultra with 3 quarts of diesel fuel. Using low pressure, coat the bottom 2-3 feet of tree trunk all the way around the tree, just to the point of run-off. This can be done any time of year. Any size tree can be killed out by cutting and treating the stump with Tordon RTU.

Call your local AGChoice location for more information.

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Difference In Lime Quality?

Eric Preston, SW MO/SE KS Regional Precision Sales Manager

It has been a very interesting spring and mid-summer. This time last year, we were terribly dry and this year, the rivers and creeks are flooding. It is amazing what just a few short months will make, but I guess that is just living in SE Kansas or SW Missouri.

In this article I would like to talk about the difference between Effective Calcium Carbonate Equivalent (ECCE) and Effective Neutralizing Material (ENM)

The 2 basic factors that are used to figure both ECCE and ENM is Calcium Carbonate Equivalent (CCE) and particle size.

The CCE of a liming material is determined by chemically reacting agricultural lime with an acid. The amount of acid the liming material neutralizes tells how much CCE a liming material contains. On an equivalent basis (pound for pound), the different liming materials found in nature are capable of neutralizing different amounts of acidity.

The fineness of a limestone material affects how rapidly the lime will react in the soil and how thoroughly it can be mixed in the soil. A great deal of research has been conducted to determine the effect particle size has on the reactivity of lime. The smaller the particle size, the more effective the liming material. As particle size is reduced, the surface area of the particles per pound of lime greatly increases. This allows more of the liming material to react faster. On the other hand, larger particles generally have a more long-lasting effect. A rating system was developed to show the effectiveness of different particle sizes to neutralize acidity. The rating is based on the amount of lime that would likely be expected to react in soils in a one-year time period. Sieves are used to determine particle size.

ENM

In Missouri the term ENM Effective Neutralizing Material (ENM), is used to figure lime quality which is in turn how we decide how much lime is needed for a recommendation. ENM per ton of liming material is calculated using the Calcium Carbonate Equivalent (CCE) and particle size efficiency ratings. Here is the equation that is used to figure ENM.

ENM = CCE x fineness factor x 800

The 800 is a constant that refers to the pounds of effective calcium in one ton of pure lime.

Continued On Page 10...

...Continued from Page 9

ECCE

In Kansas, Effective Calcium Carbonate Equivalent (ECCE) is used to classify quality of lime. ECCE is the measure of the effectiveness of liming materials and is calculated as the product of the purity value (CCE) and the fineness value divided by 100. For example, if the purity is 80 percent and the fineness value is 75 percent, then:

ECCE = (80 x 75)/100 = 60%

In conclusion these numbers are a way of finding the most cost effective way of buying lime. The higher the ENM or ECCE, the more effective and faster acting the lime application will be on changing soil pH. I hope this information can help you get your lime application for this fall planned. If you need more information, you can contact your local AGChoice location.

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The Answer is Simple: Show Animals + MFA Feeds = SUCCESS

With a winning combination of MFA show feeds, like: Ringleader, Show Ration, Muscle Pig and RS Show Goat, and our top dress supplements, like Sure Champ, you can be sure to find champions like these at a county fair near you!

Crawford County Fair

Market Steer	Reserve Champion: Shayla Johnson
Market Hog	Reserve Champion: Breleigh Harris
Meat Goat	Grand Champion: Jacey Murphy
Bucket Calf	Reserve Champion: Jarett Murphy
Rate of Gain	
Market Steer	Grand Champion: Molli Harris Reserve Champion: Ryder Worrell
Market Hog	Reserve Champion: Beau Harris
Bucket Calf	Grand Champion: Beau Harris Reserve Champion: Javen Murphy

Bourbon County Fair

Meat Goat	Grand Champion: Karleigh Schoenberger
Rate of Gain Market Steer	Grand Champion: Karleigh Schoenberger

Wilson County Fair

Market Steer	Reserve Champion: Leslie Robinson

Neosho County Fair

Market Hog	Grand Champion: Tyler Duling

AGChoice Welcomes New Salesman

As a new member of the AGChoice team, I would like to introduce myself. My name is Kaleb Nickell, and I currently live in Parsons, Kansas, with my wife, Sara, and daughter, Harper. I have a Bachelor's Degree in Biology and several years experience farming in the area. In May I graduated from Pittsburg State University with a Masters in Plant Pathology. My research at Pittsburg focused on the intercellular spread of plant viruses; the idea being that a better understanding of viruses could lead to the engineering of virus resistant plants. I really enjoyed the science I was doing and learned a lot about plant breeding and genetic engineering. I considered continuing my education and moving on to a Doctorate, but I really wanted to be in a rural area working in the field. Luckily I found a spot with AGChoice.

I'm excited about the continuing advances in crop genetics, chemicals, and biological agents. With these advancements producers have a great opportunity to continually increase yields.

I feel very fortunate to be in a place where I can use my background to aid in the implementation of these advancements. I look forward to working with all of AGChoice's current and new customers, so if you have any agronomic problems or questions, feel free to contact me at kjnickell@mfa-inc.com or (620) 496-5482. Have a safe harvest!

Kaleb Nickell
AGChoice- Weir, KS/Parsons, KS/Chelsea, OK

AGChoice Welcomes New Crop Scout

Hello, I am Alex Bolack, the new precision sales and crop scout for the Weir, Parsons and Chelsea AGChoice locations. I graduated from Kansas State University in 2010 with a B.S. in Agronomy. I grew up on a small farm near Winfield, Kansas, and I now live in Joplin, Missouri.

For the three years after college, I was living in Southwest Kansas and working as a crop scout. I worked mostly with irrigated corn, wheat, and soybeans. Now that I am with AGChoice, I am focusing on grid sampling and starting an intensive wheat scouting program. I plan on signing up regular scouting as well. I enjoy working with the AGChoice team and look forward to working with the farmers in this area. If you have any questions feel free to contact me at abolack@mfa-inc.com or (620) 429-0379.

Alex Bolack
Precision/Crop Scouting Specialist
Weir, KS/Parsons, KS/Chelsea, OK

AGChoice Locations

Blue Mound: (913) 756-2210
Emporia: (620) 342-4775
Emporia Grain & Feed: (620) 343-7562
Hepler: (620) 368-4347
Madison: (620) 437-2138
Moran: (620) 237-4668
Olpe: (620) 475-3801
Osage City: (785) 528-4632
Parsons: (620) 421-5110
Weir (east): (620) 396-8559
Weir (town): (620) 396-8554
Chelsea, OK: (918) 789-2559

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Check Us Out on the Web at www.agchoice.net!!!

Upcoming Events...

Kansas State Fair
Hutchinson, KS
September 6 - 15

Ozark Farm Fest
Empire State Fairgrounds
Springfield, MO
October 4 - 6