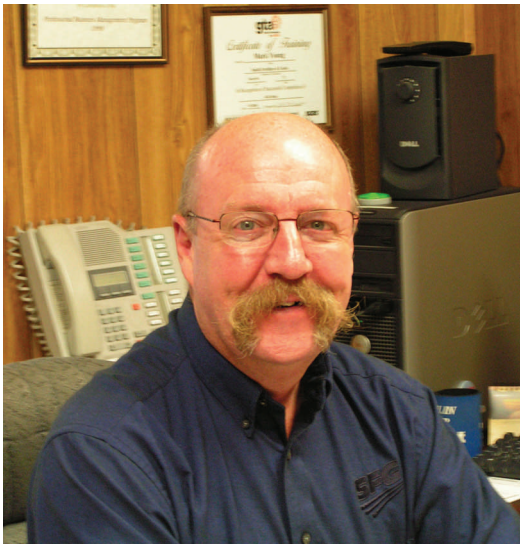
# SFG UPDATE



Smith Fertilizer & Grain
March, 2011
Mark Young
Knoxville Agronomy Manager

Potassium (K) is an essential nutrient for plant growth. Because large amounts are absorbed from the root zone in the production of most agronomic crops, it is classified as a macronutrient. Southern Iowa soils can supply some K for crop production, but when the supply from the soil is not adequate, K must be supplied in a fertilizer program.

The function of K is associated with movement of water, nutrients, and carbohydrates in plant tissue. If K is deficient or not supplied in adequate amounts, growth is stunted and yields are reduced. Various research efforts have shown that K:

1. Stimulates early growth
2. Increases protein production
3. Improves the efficiency of water use
4. Is vital for stand persistence, longevity, and hardiness
5. Improves resistance to diseases and insects

Potassium uptake by plants is affected by several factors.

1. Soil moisture: Higher soil moisture usually means greater availability K. Increasing soil moisture increases movement of K to plant roots and enhances availability. Research has generally shown more responses to K fertilization in dry years.
2. Soil aeration and oxygen level: Air is necessary for rood respiration and K uptake. Root activity and subsequent K uptake decrease as soil moisture content increases to saturation. Levels of oxygen are very low in saturated soils.
3. Soil temperature: Root activity, plant functions, and physiological processes all increase as soil temperature increases. This increase in physiological activity leads to increased K uptake. Optimum soil temperature for uptake is 60 – 80 degree Fahrenheit. Potassium uptake is reduced at low soil temperatures.

Don't let your soils manage your K, you need to manage your K. Talk to your Smith Fertilizer and Grain agronomist, find out what options are available to maximize your yield with properly managed K.

## Burl Sealls
## Super Grow Salesman

If you've been farming in south central Iowa for just a few years or maybe as many as 40 + years, I'm sure you've wondered about the final destination of the corn crop you sold to the local elevator. As most of you already know, corn is one of the most versatile grains grown. It can be processed and used in everything from human food and animal feed to medicine, clothing, paper products and even fertilizer. Yes, fertilizer! Fertilizer that can be used to grow your next season's corn crop.

Smith Super Grow is a corn based fertilizer with an analysis containing 130# N, 10# P, 20# K & 80# Sulfur. It can be used in place of other corn fertilizers such as Anhydrous Ammonia, ($NH_3$). But, just how is corn grown in south central Iowa turned into a versatile corn fertilizer?

First step, your corn that was marketed to your local elevator, is shipped via grain trucks to the Cargill processing facility in Eddyville, IA. This facility processes corn primarily into corn sweeteners. The two major sweeteners produced are Fructose and Glucose. Most of the Fructose is destine for the beverage industry such as Coke, Pepsi and other sodas as well as fruit juices. Glucose on the other hand is piped across the fence to the feed additive manufacturing plant owned by Ajinomoto Heartland. This facility is a fermentation processing plant which specializes in making Lysine, an amino acid health additive used by the animal feed industry.

Heartland adds the Glucose to their proprietary fermentation process. Certain bacteria feed on the corn sweetener (Glucose) during the fermentation and other materials such as lesser amounts of $NH_3$ are added to the fermentation product.

After a period of time, the Lysine is extracted from the fermentation product and is sold into the feed industry. The remaining material is the co-product which is the fertilizer, Smith Super Grow. Primary markets include corn, pastures and hay ground.

That's how corn is processed into a fertilizer used to grow more corn!

**For sale**

**2003 CHEVY**
**Extended cab long box**
**Vortex 8100 HD engine**
**Automatic transmission**
**Excellent tires and service records**
**215,000 miles**
**Price $8250**

## Amanda Swarts
## Agronomy Assistant

The sun is shining, birds are chirping, snow is melting and SFG just had a great Honey Creek Kickoff Event! I am proud to announce that we had a great turn out with wonderful speakers. The day started off with a choice of three speakers. You could listen to: Steve Barnhart, ISU Extension, talk about annual forage crops, Daryl Doty, DeKalb, discuss the Monsanto Pipeline, or Derek Smith, Precision Planting, "It Pays to Plant with Precision". Following the presentations, producers could talk with vendors from: BASF, CPS Wholesale, Garst, Syngenta, Monsanto, DeKalb/Asgrow, Kent Feed, Precision Planting, and Hubbard Feed.

The next breakout session gave the choices of Mark Carlton, ISU Extension, talking about side dressing nitrogen, Tim Clark, Hubbard Feed, speaking about Crystalyx and the possibilities of using it with your cattle, and Jim Frederick, Garst/Syngenta, "Newest Technologies & Agronomic Management Practices." Also, SFG Burl Sealls, our Super Grow Specialist gave a presentation about the possibilities of Super Grow for your pasture. Closing the morning was Bob Hartzler, ISU Extension, explaining the importance of the management of weed resistance.

We had a great day of presentations and knowledge. Kent and Hubbard did presentations for the cattle customers and Precision Planting spoke with the corn/bean customers. I was excited to see so many people eager to learn about new technology and what else can be done to improve yield. I want to thank all of the sponsors for their time and help with this event; BASF, Garst/ Syngenta, CPS Wholesale, United Suppliers, Kent Feed, Monsanto, DeKalb/Asgrow, and Hubbard Feed. It was a great day!
Thank you for filling out the survey, the feed back will be helpful.

## Corey Garrington
## Knoxville Agronomy Sales

A lot of you may have driven by the Knoxville location and viewed a new building being erected. By the time you receive this, our new seed shed should be completed. For those of you who haven't noticed the construction, the new seed shed is located south of the main office and other buildings. If you are in the area and would like to take a look at the new building, we will gladly accommodate you.

In addition to housing bags of seed, the new building will hold bulk soybeans. This will give us the ability to be flexible on your soybean count and in many cases could eliminate handling any loose bags. In addition to count flexibility the new facility gives the customer the option of a seed treatment on every acre. Smith Fertilizer has various seed treatments so please contact your area salesman to see what seed treatments best fit your operation.


## Larry Baker
## Feed Sales

The news in the cattle industry is very positive at this time. Hot topics that are getting a lot of discussion are: current cash prices, breeding of the cow using poor quality hay and fetal programming.

Cattle numbers are the lowest they have been in years. Carcass weights are about average, not adding beef tonnage to an already short supply and we haven't started to retain heifers for breeding. We are experiencing very good prices for all classes of cattle and prices are likely to be good for an extended time.

Producers need to use management practices to optimize herd production. We are at a critical time in the beef cycle: calving and rebreeding. It's very important, especially this year, to provide protein, energy, extra vitamins and minerals to get the producing cow calved, milking to her genetic potential and rebred in a 45 day cycle. Crystalyx supplements will help you reach this goal. Hubbard Feed and Crystalyx offers over 34 barrels to choose from to meet any application in the beef business.

Kent and Hubbard minerals are available at SFG with formulations that contain complexed or chelated copper, zinc, cobalt, manganese and contain high levels of selenium and vitamin E. This combination will boost the immune system of both cow and calf and prepare the cow for rebreeding. SFG is running a March mineral promotion.  stop by and book your mineral needs for spring and summer.

The last topic I would like to touch on is - fetal programming. The short definition for fetal programming is: whatever happens to the cow (good or bad) has a long term impact on the offspring. If the cow goes through a period of gestational malnutrition, we cannot fix the negative effects after the calf is born. As producers we can: (1) expect weight and growth development to be negatively impacted, (2) expect marketing and carcass potential to be compromised and (3) reproductive efficiency of replacement heifers will be negatively effected. It will take the heifer more time and feed to reach maturity; pregnancy rates will be lower and she will take longer to breed.

So what does this mean? We need to feed the cow, feed the calf for development and feed the unborn fetus for the next calving event. That's a lot of nutrition for our cows. The days of feeding a little hay to get that old cow through the winter are over. The cow is an amazing factory, give her some forages and fill in with a high quality supplement and she will raise a high quality calf that will sell in an extremely good market.....bottom line.....she will make you money.

SFG has two excellent suppliers, Hubbard and Kent Feeds, that are upgrading feed products to keep up with technology as it develops. Take advantage of our products to increase your profitability. Stop in and pick up some feed.  Feel free to ask any questions you may have.

Thanks for your business,

Larry Baker

## Casey Cortum
## Seed Specialist

With each day of sunshine and snow melt it draws us one day closer to spring planting which believe it or not, could be as few as 40 days away! Its time to start thinking a little more about our 2011 crop. With commodity prices soaring like all of the eagles I see in the Des Moines River bottom, we need to grab every bushel out of this crop as possible. SFG is going to challenge our customers to see who can eclipse the 100 bushel soybean per acre. Now don't panic! We're here to help and we are going to start by having a breakfast (in Pleasantville) and lunch (in Moravia) to discuss how we can accomplish this task on March 17th. I will outline a few things we can do to push your yield goal without stealing the thunder of our meeting later in the month.

**"Keep them clean, Keep them healthy, Keep them full and they will be happy."**

Maybe some of you heard this from your wife but I'm sure she was probably referring to your child and not your soybeans, but they can be very similar!

1) **Keep them clean**. Did you know weeds that are 4 inches tall can take up to 2 bushels per acre? Weeds are competition for water, nutrients and sunlight. So the quicker you can get the weeds out, the more efficient the soybeans will be. Don't stop there, keep them clean for the rest of the year. That is why here at SFG we promote a pre-emergent herbicide program for soybeans.

**2) Keep them healthy.** Starting today use practices such as seed treatment and fungicide during the flowering period to keep your beans as free from disease as possible. It starts with the seed treatment as it protects from the early season diseases such as Phytophera, Rhizoctonia, and Pithium. The late season protection most likely comes from a foliar application of fungicide during the reproductive stages of the soybean. This will protect from diseases such as brown spot, frog eye leaf spot and various leaf blights. We saw as much as 10 bushel advantages last season with an application of fungicide.

**3) Keep them full.** Just like a corn plant, soybeans need fed nutrients, just at different levels than corn. Corn takes up large amounts of the essential nutrients out of the soil. Now soybeans take up nutrients as well but at different levels and can be more responsive to some micronutrients if applied at the correct time. They also need nitrogen but will be more efficient if you allow them to fix nitrogen. By inoculating your soybeans, that is what you will be doing, allowing them to be more efficient! A simple inoculation seed treatment could gain you up to 3 bushel in the right conditions. In addition, adding micronutrients such as Boron, Zinc and Manganese during flowering could increase your yield as well. The nice thing about some of these additives is they can be applied with your last pass of glyphosate.

So there's the tip of the iceberg that we will uncover on March 17th. I hope to see several of you in Pleasantville at Smokey Row for breakfast or in Moravia at Angels for lunch. This will be a very informative meeting that you won't want to miss! Remember here at SFG we have your seed needs covered! Also, I will be in touch with several of you through out the month on your seed delivery. We will be glad to bring it to the farm or store it for you at each location. Any questions don't hesitate to give me a call at 641-891-8560.

# Honey Creek Spring Kick Off

## Jerry Don Johnson
## Albia / Centerville Agronomy Sales

The job of the farm manager is to combine the resources of land, labor, management, and capital to provide the most farm profit. Since the resources are scarce, maximizing returns to each resource is important. Here are some things to consider when planning your corn and soybean acres this year.

As preparations for spring field operations get underway, producers need to stop and think about their rotation and tillage system choices. Especially given the rise in input costs associated with conventional tillage operations - labor, fuel and equipment just to name a few. Primary tillage, such as a chisel plow or deep ripping, often requires 1 to 1.5 gallon of fuel per acre. Rising fuel cost should make no-till a consideration.

Crop rotation and tillage can influence yield of both corn and soybeanS. According to a research done by Iowa State University, yields are usually lower in continuous corn compared to corn following soybean. Also, corn yield of continuous corn or corn following soybean is often lower with no-till system compared to conventional tillage, especially in poorly-drained and cold soils.

Soybean yield following one year corn or two years corn in the rotation shows different yield responses. According to research done by Iowa State University, soybean yield in corn-corn-soybean rotations was on average 5 to 6 percent greater than soybean after one year corn across all tillage systems and across the state. The results were variable among years and locations in various parts of the state. The differences reflect the effect of site specific conditions and management. But the trend shows an advantage in soybean yield following two consecutive years of corn over one year of corn in the rotation.

## Dust Control

**SFG will be offering dust control in the following counties: Marion, Warren, Lucas, Appanoose, Monroe and Mahaska. Please contact any of our locations to get signed up.**

**Knoxville: 641-828-8500** **Pleasantville: 515-848-5000**

**Albia: 641-932-2100** **Centerville: 641-856-2828**

## Brad Kaufman
## Pleasantville Agronomy Sales

Weather permitting we should be running hot and heavy in five or six weeks. Now would be a good time to get the planter out of the shed and make sure it works, even though it worked when we put it away. Planting is one of the most important parts of the process we go through; an irregular stand can cost 10% of the yield potential. What should you check to keep your entire yield potential and reduce down time this spring?

Seed meters are the number one priority. If the meters are not working properly you can have skips, doubles or even triples. Take the meters apart every winter and clean them up. If you have a finger planter, replace any broken fingers. With brush type planters the brushes need to be replaced when worn. Lubricate the meters with graphite. Finger planters should be calibrated every year, take a bag of you seed you will plant and give the accurate speed you will be planting at. If you have an air planter make sire you have no air leaks and proper vacuum or air pressure.

Make sure the seed is dropped at the proper depth, about an inch and a half or two inches. Adjust The down pressure of the row unit if it is not putting the seed at the proper depth. Make sure your disk openers are set properly and are not worn. It they are worn too much the furrow will be a “W” shape instead of the “V” shape we like to see. Make sure the seed tubes are not allowing the seeds to hang up in them as well as the coulters, disk openers and closing wheels are alL in alignment and at the proper depths.

Now is a good time to pull your planter out of the shed and make sure it is working properly. We don’t want to rob ourselves of 10% yield by not having our planters set up properly, especially with $5.50 new crop corn.