



Professionals In Your Field

Servi-Tech Review

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Corn harvest last fall in Nebraska.

Combine Time

 by Kelly Zachgo
Area Manager, Wamego, KS

Many of you will soon be (or already are) spending hours in the combine for fall harvest. This is the perfect opportunity to evaluate the crop for evenness, health, standability, etc. One of the most important things you can do is to take a notebook in the combine and jot down the information as you see it. I like to call it a portable memory device. These notes come in handy when the snow is flying and plans are being made for the following year. Here are a couple things you may see this year.

With the increase in rainfall that many areas had this spring and early summer, you will likely be seeing areas of poorer yield due to nitrogen leaching or denitrification caused by saturated soils. Proper nitrogen management can greatly reduce these problems, even in a wet year.
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Featured Crop Consultant



Clint Burmester

Crop Consultant

Hampton, IA

Iowa State University

4 Years of Experience

Why Clint chose Crop Consulting:

"It is as close to crop production and farming as I could get and I enjoy seeing the progress of the fields throughout the season."

Favorite thing about his job:

"I enjoy working with customers and answering questions about a problem a farmer has. I like seeing my recommendations work in the field."

Hobbies:

Clint likes spending time with his wife, Jill, and son. He also enjoys working with his father on the farm during the weekends and hunting.

Planning For 2008



by Jeff Kugler
Regional Manager, York, NE

Were winter annual weeds a problem last spring before you planted your summer crop? Early October is a good time to revisit those problem areas to determine if the potential is there for the spring of 2008. Fall is an excellent time to control winter annual weeds at an economical price before they deplete precious soil moisture. As soil temperatures begin to cool in October, winter annuals begin to germinate and emerge with the first rains of early fall. Using phenoxy herbicide, if sprayed by late November, can easily control winter annual weeds such as dandelion, field pennycress, shepherdspurse, marestail, and wild lettuce. The addition of glyphosate for winter annual grasses will help reduce this problem also. The harsh winter months add additional stress to the weeds, increasing the effectiveness of the herbicide. This fall herbicide application will not control early spring emerging weeds, such as lambsquarter, ragweed, and sunflower.

Herbicide coverage with 10-15 gallons of water per acre is a key to successful weed control. Winter annuals should be ½"- 1" in diameter before application. Daily high temperature above 50 degrees is optimum for herbicide uptake by the weeds. Don't forget to add a surfactant to help break down the cuticle on the leaf surface for better herbicide uptake. This can also be an effective treatment if you are planning on seeding spring alfalfa.

Visit with your crop specialist about fall applications on your fields and what successes they have seen in the past. Remember, winter annual weeds never look bad in the fall.

Combine Time (cont'd)

Some proven strategies include split applying nitrogen to minimize the amount lost at any one time, and using a product such as N-Serve to keep the nitrogen in a non-soil mobile form. Both of these approaches require some planning ahead, and don't remedy a problem after it has happened. This requires a sidedress application of nitrogen (and possibly sulfur) in one way or another. Across portions of our service territory, aerial applications of slow release nitrogen products were applied, and results will be evident after harvest. Based on visual clues, there are some significant differences in products. These products are prevalent in turf settings and are just starting to be used in agricultural applications.

Standability issues caused by disease may also be present. Gray leaf spot was very prevalent this year and southern rust showed up again, although it showed up later than last year in most areas. Both of these will cause serious loss of green tissue, which can lead to stalk weakness. A large number of acres received a fungicide treatment for gray leaf spot this year. Any visual differences you can provide will help with disease management strategies for 2008.


All Servi-Tech agronomists undergo continuing education training, but some of the most important information we receive comes from your portable memory devices, so fill them up this harvest.

Servi-Tech offices will be closed Monday, September 3rd, so our employees can celebrate Labor Day with their friends and family.



Field Pennycress

Kansas Reduced Tillage Study

 by Bryan Boroughs
Division Manager, Cimarron, KS

Research results from an ongoing Kansas State University study near Tribune, KS reinforce the fact that no-till and reduced till tillage practices increase yields and returns over conventional tillage in dryland wheat and grain sorghum production. Researchers Schlegel, Dumler and Stone reported in a Kansas State Research Report of Progress 961 that both grain sorghum and wheat yields increased with decreased tillage, and that conventional tillage was the least profitable of the tillage systems.

This study has been in progress since 1991 and it is designed to evaluate how much reduced tillage influences yield, soil properties, precipitation accumulation, and profitability. Conventional (CT), no-till (NT), and reduced till (RT) are the three tillage systems in the study. On average, the CT systems require 4-5 tillage operations per year with a blade plow. The RT system relies on 1-2 herbicide applications and 2-3 tillage operations, and the NT system relies on 3-4 herbicide applications during each fallow period, usually with Glyphosate.

They found the least soil water accumulation during the fallow period with the CT system (4.82 inches), but the NT (5.24 inches) did not accumulate more than RT (5.66 inches) during the wheat fallow period, which surprised the researchers. During the sorghum fallow period, the CT system accumulated 3.92 inches, 5.34 inches for NT, and 4.93 inches for the RT.

One of the important discoveries from this study was that wheat and sorghum yields not only increased with decreased tillage, but also increased the longer that RT and NT were used.

During the period (1991-2005) the wheat yields were 8 bushels higher for NT (38 bu/ac) compared to CT (30 bu/ac). The RT yield was 34 bushels per acre. The researchers noted during the first five years of the study that wheat yields for CT and RT were very similar. NT yields were 3 bushels per acre higher. The yield benefits were greater for grain sorghum in the reduced tillage systems compared to wheat. During the entire study period the CT averaged 36 bushels per acre. The RT averaged 57 bushels per acre and the NT averaged 70 bushels per acre. After the first five years of the study (1991-1995), the sorghum yields were 17 bushels per acre greater with RT and NT compared to those of the CT. The late 1990's experienced good growing conditions and the yields for NT were 103 bushels per acre, 88 bushels per acre for RT and 57 bushels per acre for the CT indicating that yields improved the longer that reduced tillage practices were used.

The economic evaluation of the study indicated that the returns for NT and RT were greater than CT despite input costs that were 28% higher for NT wheat and 54% higher for NT sorghum compared to costs in the CT system. Returns for NT proved to be only slightly higher than RT rotations. The returns were \$24.12 for RT wheat, \$12.60 for CT, and \$13.54/ac for NT wheat. The NT sorghum returned \$10.42, compared to -\$0.89 for RT, and -\$12.28 for CT sorghum.

NOTICE:

Servi-Tech Laboratories is announcing a price increase in all testing packages. The new prices will take effect October 1, 2007. New fee schedules will be available at www.servitechlabs.com at that time. If you have any questions, please feel free to call the laboratory at 800.557.7509 or e-mail us at info@servitechlabs.com.

Meet our Staff: Libby Cossey

- **Title And Job Description:** Laboratory Technician - *Libby has been with Servi-Tech for five years. She is a laboratory technician in the wastewater department. Her primary responsibility is testing wastewater for BODs, metals, solids, and bacteria.*
- **Favorite Thing About Working At Servi-Tech:** *"I really enjoy the people I work with. Everyone likes to have fun, which helps to keep the work environment laid back."*
- **What Co-workers Say About Libby:** *"Libby has a great personality and keeps a level head on those high stress days. She is a very hard worker and we can count on her in any situation."*
- **Something Interesting About Libby:** *Libby is married to Doug Cossey, who is the Technical Service Representative for Servi-Tech Laboratories in Dodge City. She loves animals and is the Horse Project Leader for 4-H, as well as helps teach agility classes for the Kennel Club. Libby and Doug are expecting a NEW addition to their family this January. CONGRATULATIONS!*





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Periodical

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Hybrid and Variety Selection



by Monte Roetman
Division Manager, Kearney, NE

With harvest season just around the corner, be sure and take time to review and evaluate your farm's corn hybrids and soybean varieties to ensure that selections made for next year are the best choices for your farm. With seed orders being placed in the fall, taking time now will give you a much better chance of securing the seed that you want.

When it comes to corn hybrids, the traits that are available now can be confusing and hard to keep track of at times. For instance, you may have a Roundup Ready variety planted on a particular farm and you end up getting strong winds and some of it ends up on the ground, creating the potential for a volunteer corn problem the next year. A good choice would be to come back the next year with a Herculex hybrid and spray Liberty to clean up the volunteer corn. This year some "quad stack" varieties tolerate both Roundup and Liberty. In this situation, soybeans may be a good option if soil type and herbicides used the previous year will allow for a rotation. If you rotate with beans you can use a tank mix partner to help control the volunteer corn.



Solar Radiation



by Rick Runyan
Division Manager, Ainsworth, NE

What is the most yield limiting factor in corn production? Is it fertility, water, pest pressure or hybrid selection? After reviewing weather data presented by Jim Erwin, regional agronomist for Syngenta, solar radiation is the answer. Solar radiation is a measure of light intensity, not temperature. Solar radiation is independent of heat units or GDU's, but solar radiation and GDU accumulation are totally dependent on each other for grain production. A cloudy or hazy 85 degree day will not contribute to grain fill or yield as much as a clear 80 degree day. According to Jim, hazy days can reduce solar radiation by up to 50%.

It was noted that the highest county yield average came from Walla Walla County, Washington. Solar radiation was measured at 97%, meaning that 97% of the time, clear days were observed. Following closely behind was southwest Kansas with a 94% score. While it is critical in grain production to have all agronomic factors in place, yields can still drag without sunshine and plenty of it. Solar radiation is most important during grain fill. That would make July and August the key months.

We know solar radiation drives photosynthesis and photosynthesis provides the means for grain fill. So, in reality, any kind of plant stress will ultimately result in a reduction of photosynthesis. We have the ability to manage many potential plant stresses, (i.e. pests, nutrients, water, etc.), but solar radiation is still the wild card.

In my service territory this season, we had a substantial amount of cloudy and hazy days 3 to 4 weeks after pollination. We noticed that the ears in many fields, representing several hybrid lines, tipped back. Some hybrids had tipped back as much as 3 to 4 inches and seemed to be more pronounced on lighter soil types that showed some degree of nitrogen deficiency. But even hybrids that showed excellent plant health tipped back. As you harvest this year's corn crop, solar radiation may be the biggest contributing factor for the yield results you are seeing.