



Ceres Solutions AgVantage Green Notes



Volume 14, Issue 3

Winter Wheat Update

Our winter wheat crop continues to be affected by winter weather. There is still significant leaf tissue death from ice, snow and heavy frosts the last couple of weeks.

Wheat in the southern part of the Ceres Solutions territory looks good for the most part. Tillering looks excellent (5-7 tillers per plant) particularly in areas where the wheat was planted at least an inch deep. In areas planted shallower, tillering is reduced (to about 3 per plant), and plants are stunted. In the silty clay loam soils there has been some heaving, but noting to severe. Again the shallower planted wheat had the most problems with slight heaving. There seemed to be more problems with planting depth in no-till fields.

So far there was no evidence of any disease or aphids present, however weeds are aplenty. As good growing conditions resume it will be time to apply the Harmony Extra or SSG TotalSol. Remember wild garlic should have at least 2" of new growth.

Before the Harmony application you should scout your wheat for any diseases or aphids. Early season diseases include powdery mildew and Septoria leaf blotch. Aphids can still vector the disease barley yellow dwarf. However, spring infections are not as severe as fall infections.

If your early scouting reveals no disease present, but your wheat is growthy you may still want to protect wheat from early season diseases. Consider using a plant health treatment such as Headline at 3 oz/A or Quilt at 7 oz/A. If disease is already present 7 oz/A of Quilt or 2 oz/A of Tilt will stop the disease. These early season fungicide applications **will not** provide protection of the flag leaf. You may still need a second fungicide application to protect the flag leaf. **If you plan to make just one fungicide application, your best money spent is protecting the flag leaf with a full rate of either Headline or Quilt.**

It is also time to apply the second nitrogen application if you split apply. You may want to protect your surface urea or 28% applications from volatilization with Agrotain, a urease enzyme inhibitor.

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The Value of Preemergence Herbicides in Soybeans

The following article is an article from the Ohio State and Purdue Universities.

As many of you know the glyphosate price has taken a big jump this spring. Many of you may want to reconsider your weed control program in soybeans. When glyphosate was relatively inexpensive, a grower could afford to apply more than one application in-season. Now that glyphosate is in the \$11 range for 22 oz/ A and we are often using >22 oz/A for giant ragweed, morningglory, lambsquarter, waterhemp and others you may want to look at using a preemergent herbicide at or before planting to improve overall weed control.

What are the benefits to using a preemergence herbicide in soybeans?

Preemergence herbicides add flexibility to the POST emergence window

- Preemergence herbicides reduce early-season weed density and slow weed growth, which results in more flexibility in post emergence application timing. In other words pre herbicides control weeds early and allow you to apply post herbicides later in the season when soybean are big and weeds are small.
- Smaller weeds are less competitive and easier to control.

PRE herbicides can maximize soybean yields

- PRE herbicides reduce early-season weed competition and improve control of tough to control weeds such as lambsquarters, waterhemp, and giant ragweed,
- PRE herbicides protect yield when weather or workload delays POST applications.
- In reaserch conducted by Ohio State Univeristy in West Central Ohio the use of a PRE followed by POST glyphosate increased yield by 4-9 bushels/A compared to POST glyphosate alone.

Another reason to consider a preemergence herbicide in soybeans is to rotate herbicides. We know that rotating herbicides can help us delay weed resistance to glyphosate. We do a pretty good job of applying residual herbicides in corn. Now it is more cost effective to rotate herbicides in soybeans too.

Some of you may be tempted to reduce the glyphosate rate in soybeans. Reduced rates usually translate into reduced weed control increased yield loss and faster track to weed resistance. And we can't afford to lose any yield with current commodity prices.

See your local Ceres Solutions professionals for soybean premergence programs that work well in your area.

Seed Treatments—An Inexpensive Insurance Policy

In last month's newsletter this years poor soybean seed quality was discussed. Soybean seed is short and replant soybean seed is even shorter.

One way to protect your soybean seed investment and often times a replant is to apply a fungicide treatment to your soybean seed. Warden RTA will provide protection from pythium, rhizoctonia, Fusarium, seed borne phomopsis and sclerotinia and is the longest lasting seed-applied fungicide on the market for Phytophthora. Ohio State has observed a yield increase of 1.5 bu/A from using a soybean seed treatment over the last 6 years in test sites with a low potential for development of root rot diseases. Field situations in which using a seed treat-

ment is always a good investment include early planted and no-till fields and fields with a known phytophthora problem

With fall delivery prices for soybeans in the \$11 dollar range you may also want to try Optimize also. Optimize is one of the newer soybean inoculants on the market co-packaged with an early season growth promoter. The 10 year yield improvement in Indiana for using a inoculant is one bushel per acre. The cost of Optimize is less than \$4 per acre. A \$4 investment for an average of an \$11 or more return is a pretty good return on investment.

Ceres Solutions locations are treating soybeans now. Contact you local Ceres Solutions professional to schedule treatment with Warden RTA and/ or Optimize or both.

Just Stuff

Plant Health Program Update—There are still opportunities to arrange for you plant health applications to corn yet this spring. The following details the program:

Continue Planning for a successful 2008With high commodity prices you our business partner need to go after every bushel you can

Plan supply and help our pilots plan Our purpose is to partner with good producers and good pilots to have a successful crop in 2008. We believe we need to plan to apply our Headline/Quilt for corn and soybeans together to accomplish our goal of profitable yields.

Why: For the third consecutive year we are seeing profitable yields approximately 90% of the time

Plan your Headline/Quilt acres Now through April 4, 2008— Pay Ceres Solutions \$ 2.00 per acre (applied towards the \$ 10.00 per acre of aerial application) non returnable

Headline/Quilt—billed with normal 30 day terms.

Please contact your local Ceres Solutions Professional with your needs now.

Select Max Before Corn—By Glenn Nice and Bill Johnson, Purdue -In Indiana, spring can be unpredictable and in some situations an early planted corn field is met by cold wet weather resulting in a poor stand. When this happens, cleaning up the existing stand of corn is required before replanting. In the past couple of years the problem of controlling Roundup Ready corn has complicated a corn replant situation. The use of graminicides to clean up the volunteer corn before replanting corn has been difficult due to crop rotation restrictions for these herbicides.

Valent has received new supplemental labeling for use of Select Max on field corn. Select Max can be used only in a replant situation. Apply 6 fl. Oz/A no sooner than 6 days before replanting. Add a non-ionic

surfactant at 0.25% and 2.5-4 lb/A ammonium sulfate. Do not use MSO or COC. Apply to corn that is 12" or less. Avoid overlapping the boom for overlaps may result in rates that can cause excessive crop injury.

Agrotain For Nitrogen Management—Agrotain is a urease inhibitor that protects surface applied urea or urea solutions from breakdown by the urease enzyme into volatile ammonia (NH₃). Agrotain essentially buys you some time for an incorporating rainfall to move the nitrogen into the soil profile

Agrotain is available in two formulations, a liquid concentrate that can be impregnated onto urea or mixed into 28% and a dry concentrate that can be dissolved into 28%

Agrotain liquid concentrate use rate depends on length of control desired. Levels of control range from 5-14 days. The cost per acre of Agrotain is very similar to N-serve

Cropping situations best suited for Agrotain include: Any no-till corn if urea or UAN is surface applied; Surface applications of nitrogen to conventional soils that may not be immediately incorporated by tillage or at least 0.5-0.75 inches of rainfall; side-dress surface applications of urea or dribbled UAN to corn; surface applications to soils high in soil pH > 7.0 and residue > 30%; and other applications to specialty crops in which nitrogen is surface applied with no incorporation, and later side-dress applications of nitrogen to wheat (middle to end of March).

Agrotain Plus Agrotain Plus contain both the urease inhibitor in Agrotain plus dicyandiamide (DCD) a nitrification inhibitor for use with UAN products. The rate for Agrotain Plus is 15 lb/T. Agrotain Plus is best suited for surface UAN applications to poorly or somewhat poorly drained soils with higher residues or or later top-dress applications to poorly drained wheat fields. For more information see your local Ceres Solutions professional.

Consider Spring Soil Testing to Manage Fall Workload

Our industry has traditionally soil tested in the fall to make crop nutrient recommendations. This has worked well in most cases but, as farm size has grown, the demand for faster turn around time has increased.

Spring and early summer soil sampling offers a solution provide for timely fall nutrient and lime applications. Sampling in the spring provides the following advantages:

- Provides adequate time to discuss your soil sampling results and prepare for fall applications
- Provides for timely limestone applications after harvest when

supply is best

- Adequate soil moisture conditions for good cores
- Soil potassium levels more likely to be equilibrated, particularly following corn

If you fall apply phosphorus and potassium and/or like to follow the combine with tillage spring and early summer soil sampling may fit your operation. This will allow you the opportunity to manage input decisions and likely be in a better supply situation for P, K and lime.

Target corn stalk fields that will be planted to soybeans in 2008. See your local Ceres Solutions Professional for more details.

Ceres Solutions NutriMax for Watermelons

Introducing Ceres Solutions NutriMax for Watermelons - Ensuring season long nutrition can be challenging in watermelons given our soil types, particularly when the bulk of our nutrient products are applied before or at planting. Ceres Solutions goal is to improve your in-season nutrition plan by tissue sampling at critical plant growth stages and recommend foliar feed products as needed.

Tissue Sampling Timings: A total of four leaf tissue tests will be taken. Leaf tissue samples will be collected during early vegetative, at first bloom, two weeks after first bloom and during bulking. Ceres Solutions professionals will be responsible for collecting tissue samples.

Nutrients Tested in Tissues: nitrogen (%), phosphorus (%), potassium (%), calcium (%), magnesium (%), calcium (%), sulphur (%), Boron (ppm), Copper (ppm), Iron (ppm), Manganese (ppm), Molybdenum (ppm), Zinc (ppm)

Results: Your Ceres Solutions professional will return and discuss your personalized recommendations with ample time to apply the needed product(s). Products rates and timings will be included in the discussion and recommendation.

Cost: The cost of the program is \$3 per acre. The cost of tissue testing is included in the program cost. One sample per field will be used to make recommendations unless the field has been divided by planting times, variety, etc. One tissue sample will be comprised of 25-35 leaf samples.

The Ceres Solutions Watermelon NutriMax program is a great opportunity to learn more about the nutrient status within watermelon vines during vegetative and reproductive plant growth stages. The program will allow you to optimize your nutrients during the growing season to improve plant health, fruit set, quality and yield of your fresh market watermelons. See your Ceres Solutions professional if interested.

Protecting Your Nitrogen Fertilizer Investment

By Richard Ferguson and Charles Shapiro, U of NE Extensions specialists. Even though this article hales from Nebraska, the suggestions represented here fit Western Indiana.

With the dramatic increase in nitrogen fertilizer prices over the past year, producers may be wondering if such large investments in fertilizer are worth it. In another CropWatch article, we pointed out that current crop prices make application of recommended rates of N profitable. In fact, recommended N rates may even be slightly higher for 2008 than 2007 due to the increase in value of corn and other grain crops. However, the thought of investing \$100 or more per acre in nitrogen fertilizer may cause producers to think about how to protect that investment.

There are several management options producers can consider to protect their investment in nitrogen fertilizer, and insure that as much as possible is used by the crop this season.

- **Delay application.** The longer N is in the soil, the more likely that some of it will be lost – either by leaching, denitrification, or ammonia volatilization. However, multiple applications will require more trips over the field, and those costs need to be considered against the cost of other options. (Not always can you delay an application to side

dress or even immediately before planting.)

- **Inject fertilizer below the soil surface.** Broadcast application of N fertilizers can increase the potential for ammonia volatilization (primarily for fertilizers containing urea) or for runoff. Immobilization of N in decomposing residue is also a concern with broadcast application. Placing N below the soil surface minimizes the potential for volatilization or runoff.

- **Use a urease inhibitor.** Agrotain® is the only product currently on the market labeled as a urease inhibitor, which protects urea-based fertilizer from ammonia volatilization. Agrotain® is applied to fertilizer, so the cost per acre depends on the rate of fertilizer applied. Currently, the cost of using Agrotain® with urea is very similar to protecting ammonia with N-Serve.

- **Use a nitrification inhibitor.** N-Serve® is the only product labeled as a nitrification inhibitor. However, dicyandiamide (DCD) is also an effective nitrification inhibitor, and is sold as a slow release fertilizer or fertilizer additive (DCD is in Agrotain Plus. Agrotain plus contains a urease inhibitor plus DCD). Both products protect N from leaching and denitrification losses. N-Serve® is (continued page 4)

Notill Corner

If you're going to maximize yields, you've got to strive for uniformity in your no-till fields, says Paul Jasa, extension engineer for U of NE.

"When it comes to no-till in particular, think uniformity every day of the year," Jasa says. "If something is not uniform, it's not going to get more uniform later."

By striving for and achieving uniformity of ear size, you can maximize your yields, Jasa says. That begins at harvest by managing residue an chaff so it's spread evenly. That residue can also help you maintain more even moisture and temperature levels across the field so planted seeds emerge from a uniform environment.

When planting, it's important to have consistent seed depth placement so that the crop emerges at the same time, Jasa says. Equal spacing of plants throughout the row also helps produce maximum yields.

Jasa's studies show that a corn plant that is 1-2 leaves behind in growth to a neighboring plant will yield 50% less; and likely not yield anything if more than 3 leaves behind.

"I want every plant to be equal with its neighbor to use equal resources," he says.

Pick Cover Crop Based on Rotation—Cover crops can be biomass workhorses. The supply ample nitrogen and recycle phosphorus, while maintaining soils quality and suppression of weeds, insects and diseases.

Following re the most effective cover crops and agronomic combinations:

- Use winter peas in corn-soy rotations after harvesting soy.
- Use winter peas in continuous corn rotations
- Use cowpeas in corn-soy-wheat rotations after harvesting wheat
- Cereal rye, which is effective at suppressing diseases, can be added to cowpeas-corn-soy-wheat rotations after corn
- Annual ryegrass is effective in uptake and accumulation of nitrogen into biomass from dairy or swine manure apps in early fall

Grain Update

USDA Summary—July 12, 2007

Estimates in Million Bushels

Corn	Mar USDA—07/08	Feb USDA—07/08
Carry-in	1304	1304
Production	13,074	13,074
Total Supply	14,393	14,393
Feed and Residual	5950	5,950
Ethanol	3,200	3,200
Exports	2,450	2,450
Total Use	12,955-	12,955
Carry-out	1,438	1438

Soybeans	Mar USDA—07/08	Feb USDA—07/08
Carry-in	574	574
Production	2,585	2,585
Total Supply	3,165	3,165
Crush	1,830	1,835
Exports	1,025	1,005
Seed	86	86
Residual	79	77
Total Use	3,025	3,005
Carry-out	140	160

Wheat	Mar USDA—07/08	Feb USDA—07/08
Carry-in	456	456
Production	2,067	2,067
Total Supply	2,613	2,613
Food	950	945
Seed	86	86
Feed & Resid	115	110
Exports	1,225	1,200
Total Use	2,371	2,341
Carry-out	242	272

Delivery, Basis and Cash Bids for Ceres Solutions Elevators as of Monday March 17th.

Pleasant Ridge # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.30	5.12
	Apr 08	-0.25	5.17
	Jul 08	-0.23	5.32
	Fall 08	-0.47	5.10
	Jan 09	-0.37	5.29
Soybeans	Mar 08	-0.70	12.33
	Jul 08	-0.70	12.49
	Fall 08	-0.92	11.37
	Jan 09	-0.70	11.75
	July 08	-1.55	9.82
Wheat			
Kersey # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.37	5.05
	Apr 08	-0.34	5.08
	Jul 08	-0.30	5.25
	Fall 08	-0.55	5.02
	Jan 09	-0.47	5.19
Soybeans	Mar 08	-0.78	12.25
	Jul 08	-0.78	12.41
	Fall 08	-0.99	11.30
	Jan 09	-0.80	11.65
	July 08	-1.65	9.72
Wheat			
Roselawn # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.37	5.05
	Apr 08	-0.34	5.08
	Jul 08	-0.30	5.25
	Fall 08	-0.55	5.02
	Jan 09	-0.47	5.19
Soybeans	Mar 08	-0.78	12.25
	Jul 08	-0.78	12.41
	Fall 08	-0.99	11.30
	Jan 09	-0.80	11.65
	July 08	-1.65	9.72
Wheat			
Teft # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.38	5.04
	Apr 08	-0.35	5.07
	Jul 08	-0.31	5.24
	Fall 08	-0.56	5.01
	Jan 09	-0.47	5.19
Soybeans	Mar 08	-0.79	12.24
	Jul 08	-0.79	12.40
	Fall 08	-0.99	11.30
	Jan 09	-0.81	11.64
	July 08	-1.65	9.72
Wheat			
Ade # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.37	5.05
	Apr 08	-0.34	5.08
	July 08	-0.30	5.25

	Fall 08	-0.55	5.02
	Jan 09	-0.47	5.19
	Mar 08	-0.78	12.25
	July 08	-0.78	12.41
	Fall 08	-0.99	11.30
	Jan 09	-0.80	11.65
	July 08	-1.65	9.72
Wheat			
Cherry & Whitesville # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.27	5.32
	May 08	-0.22	5.37
	July 08	-0.22	5.49
	Fall 08	-0.55	5.20
Soybeans	Mar 08	-0.64	12.89
	May 08	-0.57	12.96
	Fall 08	-1.11	11.68
	June/ July	-1.80	9.82
Wheat			
Wingate # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.41	5.18
	May 08	-0.30	5.29
	July 08	-0.30	5.58
	Fall 08	-0.60	5.15
Soybeans	Mar 08	-0.65	12.88
	May 08	-0.58	12.95
	Fall 08	-1.15	11.64
Browns Valley # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.46	5.13
	May 08	-0.35	5.24
	July 08	-0.35	5.53
	Fall 08	-0.64	5.11
Soybeans	Mar 08	-0.72	12.81
	July 08	-0.63	12.90
	Fall 08	-1.20	11.59
	Jan 09	-0.76	12.15
Brazil # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.31	5.28
	Apr 08	-0.23	5.36
	May 08	-0.23	5.36
	June 08	-0.32	5.39
	July 08	-0.27	5.44
	Fall 08	-0.68	5.07
	Jan 09	-0.48	5.35
Soybeans	Mar 08	-0.78	12.75
	April 08	-0.75	12.78
	May 08	-0.75	12.78
	Fall 08	-1.20	11.59
	Jan 09	-0.93	11.98
Wheat			
	Jun 08	-2.40	9.22
	July 08	-2.40	9.22
Clay City # 2 Yellow Corn	Delivery	Basis	Cash
	Mar 08	-0.34	5.25
	Apr 08	-0.32	5.27
	May 08	-0.25	5.35
	Jun 08	-0.33	5.38
	July 08	-0.28	5.43
	Fall 08	-0.68	5.07
	Jan 09	-0.51	5.32
Soybeans	Mar 08	-0.78	12.75
	April 08	-0.75	12.78
	May 08	-0.73	12.80
	Jun 08	-0.60	13.09
	Fall 08	-1.20	11.59
	Jan 09	-0.93	11.98
Wheat			
	Jun 08	-2.40	9.22
	July 08	-2.40	9.22

Protecting Nitrogen Cont.

applied at the rate of 1 qt/acre.

These options should be considered as insurance, rather than yield boosters. If the proper rate of N is applied and climatic conditions are such that the potential for N loss is minimal, there will not be any benefit from using these practices.

Normally, there will be some potential for one or more N loss mechanisms to influence fertilizer availability, resulting in some yield protection from the use of these practices. The most appropriate conservation practice, or combination of practices, will depend on your cropping system, soils, fertilizer source, and climatic conditions.

An important consideration is that the cost of most of these practices has changed little over the last couple of years, while the cost of fertilizer has more than doubled. If a practice can help protect against losing 20% of the N applied, for example, that may save \$20/acre worth of fertilizer, and perhaps 5-10 bu/ac of yield potential worth \$25 to \$50/acre, if the applied N fertilizer rate is near the economic optimum rate. With a potential investment of \$10,000 to \$14,000 for N fertilizer alone for a typical irrigated quarter-section field, adding \$800 to \$2500 to insure that investment seems worthwhile.