

AGVISE

LABORATORIES

SUMMER 2008

SOUTHERN TRENDS

Lots of soil samples! This years' late spring and early summer soil sample volume is up over 25% from past years in our Benson lab. If this is an indication for fall soil sample volumes, you will want to plan for the increased demand for soil testing from your growers. The Benson lab is geared up and ready to give you the best service and turn-around that you have come to expect from AGVISE. Also, with the high fertilizer prices, your growers will need to more closely manage their fertility needs and the most important factor in this is soil sampling to monitor the soil nutrient levels and accurately apply nutrients. Over-application is expensive and under-application reduces yields and profits. Our lab costs have increased only about 2.5% over last fall, whereas you know how much other crop input costs have skyrocketed. Grid or Zone sampling is an excellent way to vary nutrients across fields by putting nutrients

where they will be most beneficial.

Our annual fall customer appreciation "Update Meeting" will be held on Tuesday afternoon, August 26 in Benson, MN.

Please mark your calendars and return the RSVP invitations (separate invitation letter sent from our Benson, MN lab) so we know how many meals to plan for. We are also lining up tours of the new Fibromin Power Plant (electricity power plant generation from burning turkey litter) earlier in the afternoon and a separate RSVP will be necessary since they have to limit the number of people on the tours.

I hope you have a great fall season!



RICHARD JENNY
AGRONOMIST/CCA

Northwood Laboratory Open House

August 7 • 12-6pm

AGVISE Laboratories is hosting and "Open House" at our new office and laboratory facilities in Northwood on August 7. Our staff will be hosting continuous tours of our new building from 12-6 PM. Since the tornado last August, AGVISE has constructed a 40,000 square foot state of the art soil and plant testing facility. We are ready for a very busy fall soil testing season. You have to see this new facility! Our staff will be serving brats, burgers and the fixings all afternoon.

To add a little fun to your visit, you can shoot a round of golf at the Northwood Gold Course and AGVISE will pick up the tab. Prizes will be awarded to the best golfers. We would like to have an idea how many people will be attending from your location and how many will be golfing. Please give Shelly or Patti a call at 701-587-6010 to let us know if you can.

AGVISE Soil Fertility Seminar Dates Set

We have had several requests from customers to let them know as soon as we have solid dates for our Soil Fertility seminars next January. The dates and locations for our 2009 Soil Fertility Seminars are listed below: We are in the process of confirming speakers and topics for these meetings. A registration letter will be sent to AGVISE customers in early November to sign up first. A week or so later we will also send an email to everyone on our mailing list about registration for these seminars. If you received this newsletter you are on our mailing list, but we may not have your current email. If you want to be sure to receive an email announcing our seminars, please call Teresa at our Northwood office (701-587-6010)

January 6, 2009 - Willmar, MN

January 7, 2009 - Watertown, SD

January 8, 2009 - Grand Forks, ND



in this Issue

AGVISE Northwood Looking Good.....	2
Zone Management	3
Conservation Project	4
Precision Helpers	4
Postcards	4
AGVISOR Gold	5
Special Offer.....	5
President's Corner	6
Northern Notes.....	6

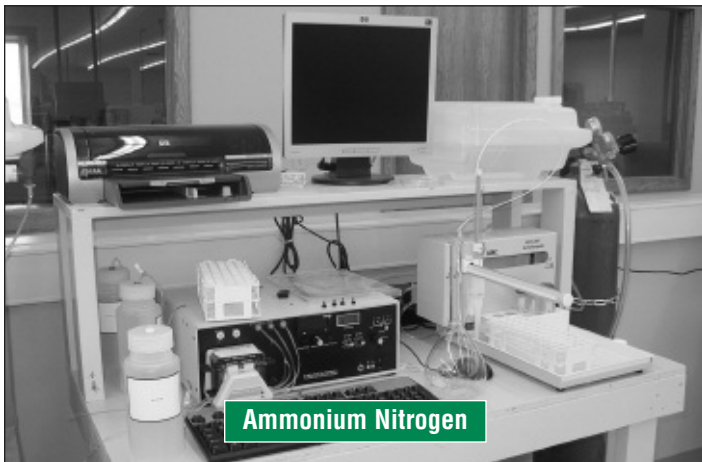
AGVISE Northwood Looking Good!

The new offices and laboratory building in Northwood are coming along nicely. It's hard to believe that it has been almost a year since a tornado hit the city of Northwood and destroyed most of AGVISE Laboratories.

Our new building combines the space we had in the three separate buildings that were destroyed. The new building is also one story, which makes it easier and faster to get to all areas (see pictures). The design of our new building incorporates the need for ventilation for several tests. Instruments like the ICPs (Inductively coupled argon

plasma) and A.As (atomic absorption spectrophotometers) are located on the perimeter of the building. These instruments test soil and tissue for P, K, Ca, Mg, Na, Zn, Fe, Mn and Cu.

There are so many features in our new building that will enable us to serve you better, but they are hard to describe in words. It will be much better to show you these features in person! We hope everyone will be able to attend our open house on August 7 from 12-6 PM. We are looking forward to seeing you then!



Zone Management: After 4 years of practice

As an agronomist, we supply our clients with numerous services to help them maximize their productivity. The recommendations we give are based on tried and tested techniques as well as agronomic and professional experience. I have been asked to reflect upon the success we have had in four years of zone soil sampling (0-24" depth) and try to give some perspective on why you may want to implement a zone sampling program with your growers.

Just like building a house, starting a successful zone sampling program needs a solid foundation. There are many theories on the proper way of delineating management zones and we have found that using as many layers as possible, plus including as many growing seasons as possible, is the best way of getting a true picture of our fields. We are most successful in using a combination of topography, electrical conductivity, satellite images and yield maps. The purpose of any zone management program should be to direct your soil sampling efforts. We want to collect samples that will allow us to better advise our clients. Here are some of the results that I have seen that has convinced me that zone management sampling is the right direction for my clients.

Nitrogen Management

The first change we made, because of the more in-depth information we've received from zone sampling, was a change in our nitrogen management philosophy. We immediately recognized those areas of the field that offered greater mineralization and required less nitrogen inputs. By understanding the soil's ability to supply nitrogen and recognizing that today's corn hybrids are better at utilizing the available nitrogen, we have become comfortable with applying nitrogen in those areas of the field that have high mineralization potential at a rate of 80-85% of what we would have done only a few years ago. In some isolated zones, we have been able to justify cutting our nitrogen

rates by almost 50% and still maintain high productivity.

Phosphorus Management

Phosphorus management changes came in several ways. First, by having a topography layer in our zone delineation, we've been better able to recognize the spatial difference in soil test phosphorus levels. Secondly, we've noticed that high productivity areas many times have some of the lowest phosphorus levels. Thirdly, fields with a history of manure applications may still have areas of low phosphorus. The buffering capacity of our soils to phosphorus is so great that we even see low levels in fields we would expect very high soil test values. We could only have recognized this with a good zone management sampling system.

Potassium Management

Did we see positive results managing potassium as well? Certainly, but because of the relative cost of potassium compared to nitrogen and phosphorus, it was not a high priority item to manage intensively. This will most likely change with the almost 10 fold increase in price of potassium fertilizer.

It is sometimes difficult to measure the results of a zone sampling system and after four years of zone management sampling, four years of differing hybrids, four years of differing management philosophies, and four years of very different weather patterns, I cannot say conclusively that our production has increased with zone sampling. I can say, however, that we have maintained our high productivity and used fewer inputs to do it. Nevertheless, we are looking at our soil fertility in a

more productive manner. To get some perspective I looked at three fields that we have been zone sampling and compared them to what the grower would have normally applied to these fields. The comparison below shows how these fields would have been

Author: Dorian Gatchell: Agronomist (15 years), Wood Lake Equity Elevator, Wood Lake, MN., MS: Iowa State University, BS: South Dakota State University, CPA, CCA

Dorian has 22 years military service (4 US Air Force, 18 National Guard) is a member of the SD Air National Guard and has had 6 Mid-East deployments, including his current deployment in Iraq.



either over or under fertilized with the grower's usual uniform fertilizer application as compared to our zone variable rate application.

This comparison clearly shows that the grower has traditionally over spent his fertilizer budget on a large percentage of his fields and most likely limited the crops potential on the rest of the fields. After seeing multiple sets of data as these, it has not been hard to justify the initial discussions with growers about zone sampling

We have found that zone sampling has increased our understanding of our soils and its ability to supply the crop with nutrients. This knowledge base allows us to better place our hybrids, select the optimum seeding

	Nitrogen		Phosphorus		Potassium	
	% over applied	% under applied	% over applied	% under applied	% over applied	% under applied
Field 1	38	62	44	56	100	0
Field 2	32	68	54	46	100	0
Field 3	22	88	30	70	61	39

rates and allows us to further refine other management tactics. In the end, our zone management program has given us a greater level of detail about our fields and has allowed us to better utilize the costly inputs needed to maximize yields. Having this information has also shown us how far off the mark you can be by 'winging' it, not testing or by using the standard composite soil samples.

AGVISE Supports Conservation Cropping System Project

AGVISE Soil Scientist John Lee was a guest speaker at the Conservation Cropping Systems Project Field Day (CCSP) at Forman ND on July 10. John presented information in the field on how soil and plant analysis can be used to help manage fertilizer inputs. Many NRCS staff and growers from around the region attended this field day. University Scientists provided information on cover crops, strip tillage, soil compaction and disease management as well.



AGVISE laboratory has supported the CCSP research farm by providing soil analysis for the past several years. This is just one example of the support AGVISE provides to many university and industry researchers and their very worthwhile projects.

Precision Helpers

Check out our homepage (www.agvise.com) and click on the "Precision Helpers" link. This will take you to a list of AGVISE customers who help other businesses get started with the soil testing side of Precision Ag (zone sampling, grid sampling etc.). These businesses have experience in this area and can help you figure out the equipment and computer software you need to get started. If you are a provider of these services and are not listed on the Precision helper list on the AGVISE web site, please give us a call.

Postcards to Promote Soil Testing!

This is the fifth year that AGVISE has provided our customers with free "Post Card Mailers" to promote soil testing. Many customers comment on how these post cards work to get their growers attention directed towards soil testing. By using these post cards, customers have told us they have been able to start testing earlier and they end up soil testing more fields for each of their growers.

AGVISE will customize the message on your post cards so you can tell the growers exactly what you want! Here is an example of what one customer had us print on his post cards last year:

"Give Dave a call today to sign up for soil testing (320-123-4567). Soil testing is the first step towards a profitable crop next year!"

Once you receive your post cards with the customized message, all you have to do is write the growers name and address on the post card, add a stamp and put them in the mail. These post cards also fit into most statement envelopes so you can include it with the statements if you want.

Any AGVISE customer who tested more than 50 samples last year should have received a mailing with an example of the post card. All you have to do is write the message you want on the post card on the form you received and fax or mail it back to us. If you did not receive this mailing or have questions on how to use the post cards, please give John Lee or Richard Jenny a call.



AGVISOR Gold Helps with Regional Nitrogen Guidelines

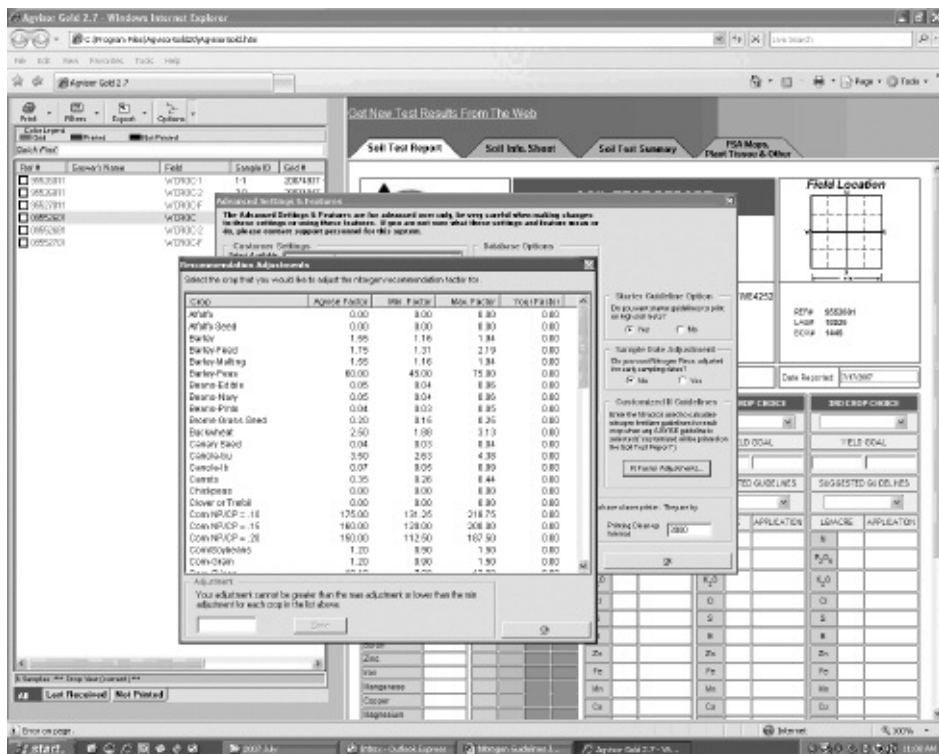
Nitrogen fertilizer guidelines are changing for some crops in our region. If you want to customize the nitrogen guidelines to better fit research in your region, our AGVISOR Gold software helps you to do this. One example is the corn nitrogen guideline. For those who soil sample to a 24-inch depth, the basic equation is “estimated yield goal” multiplied by the factor 1.2. From this total nitrogen need you subtract the soil test nitrogen test (0-24”) and any crop credit. The AGVISOR program allows you to change the factor (1.2) to better match the research in your area. To customize the nitrogen factor for each crop in your AGVISOR Gold program following these instructions:

1. Open AGVISOR Gold
2. Choose the “Options” down-arrow.
3. Choose “Advanced Setting” from the drop down menu.
4. Choose the “N Factor Adjustment” button (lower right corner of box)
5. Once the “Recommendation Adjustments” window is open, you then choose your crop and input the new factor you want to use. Note: This also shows you the current AGVISE nitrogen factor for each crop.
6. Take a look at this feature to see how it works, you can always change it back to the original default guidelines at any time.
7. Give Richard or John a call if you have any questions.

Special Offer on 24" Sampling Systems

AGVISE is offering special pricing on the first 25 soil sampling systems sold this fall. The special price is on our 24" electric/hydraulic soil sampling system. AGVISE will credit \$200 of free laboratory analysis to your account with the purchase of one \$2,400.00 sampling system. This offer is good for the first 25 sampling units only sold this fall. You can view all of the components of this sampling system on our web site. Just go to www.agvise.com and click on “Products and Equipment” then “Hydraulic Sampling Equipment”

Last fall we sold all of the specially priced systems before September 15. If you need a new sampling system or just want to improve the equipment you are currently using, don't wait too long.



AGVISE

LABORATORIES

604 Highway 15 West
P.O. Box 510
Northwood, North Dakota 58267
701-587-6010 / FAX: 701-587-6013
Home page: www.agvise.com

PRESORTED
STANDARD
U.S. POSTAGE PAID
GRAND FORKS, ND
PERMIT NO. 317

PRESIDENT'S CORNER

The price of crude oil is closing in on \$150 per barrel as I write this article for our newsletter. It is safe to assume record oil prices will increase the input costs to the agricultural sector. High oil prices tend to push natural gas prices higher, which drive nitrogen fertilizer prices higher. The higher cost of shipping all other inputs (seed, chemical etc.) to our area will drive input costs higher as well.

While commodity prices are still high, they have fallen quite a bit recently (Wheat is down 50% since the records last winter). Soil testing every field for the 2009 crop is more critical than ever given the situation we are in with inputs and crop prices. A crop's need for nutrients do not change because the price of nitrogen, phosphorus and potassium fertilizer are more expensive. The temptation for growers to cut fertilizer rates will be great. With a good soil testing program, you can assure your growers they are spending their fertilizer dollars wisely. This would be a great time to introduce management zones to your growers that are unfamiliar with this practice. Breaking large fields into management zones will let you place those fertilizer dollars in areas of the field where they will do the most good. We have already seen a record number of "summer zone samples" submitted to the Benson lab for the 2009 crop year. With input costs at record highs, growers cannot "guess" how much fertilizer they need to apply!



BOB DEUTSCH
PRESIDENT
SOIL SCIENTIST/CCA

NORTHERN NOTES

2008 has been an exiting year so far in Northern region. High crop prices have growers thinking about any practice that could increase yield. Most growers are using common sense and implementing proven practices, but some growers are being sucked into big promises of unproven products and practices. Time will tell growers which growers made the right choices.

With fertilizer prices at all time highs, we expect grower interest in soil testing will be high as well. Splitting fields into several management zones for soil testing is becoming a common practice. With the extra time required for soil testing fields in separate management zones, it is important to start soil testing right after small grain harvest. University researchers have long promoted soil testing right behind the combine on small grain fields.

With the increase in demand for soil testing, it is important to have up to date soil sampling equipment. AGVISE customers with in-cab mounted hydraulic sampling systems give themselves a big advantage. AGVISE sampling systems give you the best quality samples because you can look at each soil core to make sure it is a quality core before it goes into the sample bucket. This cab mounted system is fast and also enables you to sample through up to 12" of frozen soil. If you need to update your sampling equipment or are setting up another sampling vehicle this fall, give us a call. The first 25 sampling systems sold this fall will receive a \$200 credit on their account for soil analysis.

Please let us know what you need for soil testing supplies. We can usually ship them to you in a day or so. We hope you have a safe fall season!



JOHN LEE
SOIL SCIENTIST/CCA