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The Growers Solution

LATE FALL 2007

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Update On The Ethanol Era

By Jim Halbeisen

In the Late Fall 2006 edition of *The Growers Solution* we discussed the changing face of agriculture with the United States entry into the biofuels market, and we suggested new demand for corn as a fuel would create a new price environment. During our winter meetings in early 2007, many producers felt the ethanol influence would be short lived and higher prices of any significance would not be long lasting.

For a while corn prices rose to over the \$4 per bushel level, wheat exceeded \$8 per bushel, soybeans at one point were over \$9 per bushel, and milk approached the \$25 per hundred area. These price levels would seem to be a benefit to the financial health of North American farmers, and, indeed, some went on a spending spree for land and equipment. In the meantime, the

agricultural input business saw the extra money as an opportunity to profit, so their prices increased significantly, particularly for corn inputs.

So, as the dust settles on the 2007 growing season, certain factors have come to light.

1. Corn prices were high in February 2007 as corn acres were being bought for the 2007 planting season, and they were also high in June 2007 when it looked like Illinois might have some weather problems. However, when the extra acres and better weather conditions took control of the market, corn prices settled back some.

2. With fewer acres and poorer world growing weather, wheat and soybeans prices have increased steadily in 2007.

3. Milk prices have reached levels in late 2007 few people believed would be possible

earlier in the year.

4. Poor world weather and the less expensive dollar have helped US agriculture make its biggest trade balance inroad for quite some time.

5. Fertility input prices have increased significantly as raw material suppliers try to cash in on higher agricultural prices.

Thus, as things wind down for 2007, we see the principals of The Growers Program, or "target fertility," to be ever more pertinent for the 2008 growing season.

To employ the target fertility concept, one must believe the plant physiology textbooks are correct when they state 96% of healthy plant tissue contains carbon, hydrogen and oxygen and less than 4% of 13 other elements which includes nitrogen, phosphorus, and potassium. The Growers Program agrees. It tells a

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Agricultural Confusion

By Jim Halbeisen

To lower dependence on foreign oil, President Bush made his case for biofuels, and, soon after, commodity prices in the United States started to climb. The agricultural commodities increase is related to the fact they also serve as fuel sources as well as food sources. As these price increases started to establish themselves, I felt this would soon have a dramatic influence on the livestock sector.

In the past many livestock producers, in order to hedge against feed shortages or feed cost inflation, were also commodity producers. This "growing your own feed" hedge was successfully used for many generations. But then the agricultural establishment started telling producers they couldn't afford to waste precious management time with very cheap input commodities. The "buying feed"

approach has been looking good for many years, especially for very large livestock operations, and indeed, it has allowed them to further increase the size of their feeding operations. Now as the price of feed, the major cost ingredient in feed operations, has increased significantly, it appears this style of management may be struggling.

Having been in the swine business for several years, I felt the large swine operations would eventually encounter profitability problems. It seemed to me all types of livestock operations, as input costs went up, would have to receive corresponding finished product price increases in order to stay profitable. However, the agricultural establishment maintained pork remained a money maker at the current finished hog price even with significantly higher corn prices. This is definitely confusing.

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Carolinas Tour

By Jim Halbeisen

As district manager Terry Norris and I traveled parts of South and North Carolina in July 2007, it was quite evident the southeast was dealing with extreme heat and drought. Some areas were receiving enough rain to grow a decent crop, but almost none at all for others.

I was reminded Growers Mineral Solutions and the Growers Program can help producers everywhere deal with these adverse conditions:

Number 1: Using smaller amounts of fertility (GMS), means less salt is introduced into the soil environment, thus plants automatically have less competition obtaining water.

Number 2: Calcium incorporated into the soil can stimulate the growth of biological factors; bacteria, fungi, actinomycetes, which help retain moisture in the soil, while microbes can help supply water and minerals to the plant.

Number 3: A soil high in calcium and low in fertilizer salts can create plants with lower water demands which automatically require less water to reach maturity.

Number 4: When soils become so dry, plants struggle to absorb nutrition, foliar spraying is an excellent method, maybe the only method, to get nutrition into the plant. This will not create a "silk purse out of a sow's ear", but it could help the crop stay alive physiologically until rains arrive.

Terry and I found his Carolina customers seeing consistently good results using The Growers Program on all the region's various crops; corn, soybeans, cotton, tobacco, and a variety of vegetables.

Terry has also found foliar spraying GMS helps soybean blossom retention, especially during the extreme heat and drought. Also, Terry's and many other Growers' customers when foliar spraying GMS with the addition of Growers Nutritional Additive (GNA), besides experiencing improved yields, reduced crop moisture at harvest and earlier maturity, find soybeans and other plants hold blossoms much better during periods of stress. For many years better blossom retention has benefited vegetable growers using GMS sprays, but now, with higher priced commodities, improving blossom retention on soybeans can be very profitable. ■



Above: Inspecting their grain bin Pat (left) and Mark Lovett of Tabor City, NC, have been working with various aspects of The Growers Program on tobacco, corn, and soybeans since 1997. As they learn the value of high calcium lime and using target fertility, GMS, they see very nice economic results and how well their crops handle the stress of the Carolina's hot and dry weather.



Left: Ronnie Elliott of Mt. Olive (Nichols) in eastern South Carolina, a GMS customer for two years stands by his tobacco barns. Ronnie soil applies GMS on his tobacco and foliar sprays both his tobacco and soybeans and gets excellent yield and quality on the tobacco and very good soybean yields.



Jerry Kelley of Hartsville, SC, is pictured with the peanut digging machine he uses prior to harvest. Jerry has been a Growers customer for six years, but over the last two years has switched over completely to the Growers Program of Hi-Cal lime and GMS. Even with the severe rain shortage this year, Jerry's peanuts thrived. He also uses GMS on his corn, soybeans and cotton.

On The Road Again

LATE FALL 2007

Growers Mineral Solutions is scheduled to set up and staff booths at the following upcoming farm shows and conventions this winter. It's a great time to stop in and review your plant food and animal nutrition needs, hear about new developments at Growers or just chat with the folks who make it all happen—your friends and neighbors.

- Nov. 16, 2007 Truck Patch Connections
Mt. Hope, OH
- Jan. 7-10 Delaware Ag Week.
2008 Harrington, DE
- Jan. 8-10 Keystone Farm Show
York, PA
- Jan. 8-10 Ontario Landscape
Congress
Toronto, Ont, Canada
- Jan. 11-12 Georgia Fruit
and Vegetable
Savannah, GA
- Jan. 15-16 Ohio Produce
Growers Congress
Sandusky, OH
- Jan. 15-17 Fort Wayne Farm Show
Fort Wayne, IN
- Jan. 15-17 New Jersey Vegetable
Marketing
Atlantic City, NJ
- Jan. 22-24 Virginia Farm Show
Fishersville, VA
- Jan. 29-31 Mid Atlantic Fruit
and Vegetable
Hershey, PA
- Jan. 30-Feb. 1 Southern Farm Show
Raleigh, NC
- Feb. 1 Northern Indiana
Grazing Conference
Shipshewana, IN
- Feb. 5-6 Alexandria Area Ag Show
Alexandria, MN
- Feb. 5-7 Canadian International
Farm Equip
Toronto, Ont, Canada
- Feb. 13-14 Empire State Fruit
& Veg. Expo
Rochester, NY
- Feb. 13-16 National Farm
Machinery Show
Louisville, KY
- Feb. 21-23 NYS Farm Show
Syracuse, NY
- Feb. 26-28 Central Minnesota
Farm Show
St. Cloud, MN

Hope To See You!

In Memory



Douglas I. Mack
April 11, 1945 - October 19, 2007

We regret to announce the sudden and unfortunate passing of Growers Western New York District Sales Manager, Doug Mack, 62. His death is related to recent heart problems. He is survived by his wife Jeannette, son Brad, their extended family and many, many friends.

Early Order Purchase Discounts

November 1, 2007, starts our new 2008 fiscal year. The early order Cash In Advance of Delivery Discounts (CIAD) will remain the same as in previous years: 10% for November order payments, 8% for December, January 6%, February 4% and March 2%.

PLEASE NOTE: Out of necessity due to

sharp increases in our raw materials, as of November 1, 2007, prices for Growers Mineral Solutions have been increased. Call your Growers representative for an explanation of the early order discounts, quantity pricing, and delivery of Growers Mineral Solutions. ■

Agricultural Confusion

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The point here is start believing your own evaluations. I know I am after reading "Tyson's Grain Costs Trickle Down" in the September 6, 2007, issue of *The Wall Street Journal* confirming Tyson's pork operations were feeling the pain of higher priced commodities, just like I expected they would. The agricultural establishment's lack of our fathers' and grandfathers' "feed hedge" is finally coming to bear on Tyson's bottom line. Their stock paid the price with a 13% negative adjustment, and to overcome the loss Tyson was reorganizing by "streamlining management, eliminating unproductive

activities, and raising prices to the consumer." Perhaps the agricultural establishment hasn't understood or appreciated our ancestors' feed hedge because it has been too long since they failed to make profits with purchased feed.

Mr. and Mrs. Farmer, use your own correct observations to survive. Ask your Growers Mineral Solutions representative to show you the article in his sales manual entitled "Who do you trust? For starters, just yourself." The article ends, "— As a friend often reminds me, in the valley of the blind a one-eyed man is king. Keep your eyes — at least one of them, anyway — open. And trust what you see rather than trust the seeing-eye dogs of agriculture." ■

Ethanol Era

Continued from page 1

producer he doesn't need large volumes of minerals for his plants. He only needs to add appropriate amounts at the correct time, in the correct physical position, in a correct balance and with correct purity. For over 50 years customers have successfully and profitably used the original Growers Program with only minor adjustments.

A worksheet has been developed to help customers and potential customers evaluate their per acre fertility costs, and everyone is encouraged, with the help of their GMS representative, to complete this brief worksheet. It will shed light on fertility costs, whether GMS or others, and help control usage. Producers only need to know fairly

accurately how much fertilizer is being applied per acre and its cost.

As the prices of fertility raw materials increase, using a targeted product like GMS makes even more sense. It becomes effective because of the shrinking environment in which fertility inputs are applied. With GMS applications pinpointed, targeted, on corn crops as a starter on the seed and a foliar spray when it is about to reproduce or make grain, there are fewer chances for loss and better chances for correct utilization of the fertility. So, when preparing for the 2008 planting season, we encourage producers to do number crunching on a per acre basis. Growers Mineral Solutions should prove to be most productive and profitable. ■

Growers MINERAL SOLUTIONS

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LATE FALL 2007

(Written 25 years ago, this is the fifth segment in the series, and Sam, now pretty well sold on lime, lists its many benefits.)

By Sam Niblett

1979 — 1980

Well, I decided that if I was ruining my land, I'd rather be "liming it to death" than by any other method. A defunct sugar beet plant in my town of Easton had used limestone to remove impurities from the sugar and had discarded thousands of tons of the perfect material — high calcium, finely ground limestone, and I was able to purchase 3,000 tons of it. My helper, Roy, had threatened to get a stick and beat "that Wilbur fella," but by the time he finished spreading lime over a two year period, we had covered 120 acres with 12 to 15 tons per acre.

Changes were happening fast. That hard, almost impenetrable soil that wouldn't absorb water had taken on a completely different character. It was soft and mealy. Standing water became a thing of the past. Erosion was reduced from tons to pounds. Plowing required less fuel, and a smaller tractor pulled a larger plow. Tire chains were installed to pull the potato planter through the soft porous soil. Cultivating and hilling up the potato row became enjoyable as the soil flowed around the

teeth. Before we had to scrape and pry loose enough material to make a bed for the spuds to grow in.

Wilbur told me, as he tells anyone who will listen, and most don't, that we, the agricultural community, had for years tried to solve a chemical problem with mechanical tools. Larger tractors pulling larger tillage tools, rooting around in the soil look like they are doing a great job. But with each trip over the land, they squeeze more air and oxygen from the soil, creating compaction problems along with an acidity factor tied to it that causes us to farm only the top few inches.

Lateral rooting is the best indicator of the problem. And I remember it well: Prior to applying any limestone, I had planted sweet clover for a rotation crop. While Wilbur and I were walking in that field, he mentioned that sweet clover has long tap roots that would break up and aeriate subsoils. I reached down to pull one out to get a look at the roots. What a shock! This plant with a characteristic deep root had penetrated only two inches and then turned a right angle to run parallel with the ground. The acid bonding of the clay particles — a "Franklin phrase," I might add — had literally prevented the tap roots from penetrating more than two inches and I was trying to grow potatoes in this "hodgepodge?"

The angle worms had long since bailed out and bacteria were at a minimum. Rotation with grain and hay crops, although a sound practice, were victims of the same physical chemistry as the potato. Legumes grew only sporadically, and when straw and hay were plowed under to add organic matter to the soil, they would turn up again the next year in much the same condition as they were when buried the year before.

Because pH is affected by temperature, moisture, fertilizer and other factors, the problem with its use in soil testing is that it will give 12 different readings in 12 different months of the year. I had been shooting at a moving target. I didn't realize I could have a

high pH and also have a very low calcium level.

Sodium, magnesium, potassium, ammonia and the rest of the alkaline properties can raise pH but still show no appreciable level of calcium. Nitrogen, phosphorus and potash along with the pH meter have obscured the value of calcium in American agriculture.

Calcium is that overlooked, misunderstood, completely overshadowed "policeman" of the soil. And because it is the 5th most common element in the Earth's crust, it seems to be free forever. The problem is that it is a weak ion, it is highly mobile, and it has become nearly extinct in the top 12 to 18 inches of soil. Under these conditions, compaction and acidity have taken over, and plants have to be force fed with high levels of nitrogen fertilizer in order to extract what little calcium is left to support growth, not to mention yield. Cell walls will not develop without some calcium and crops grown at reduced levels feed on whatever else is available — potassium, sodium, magnesium, nitrogen and water. Late maturing, watery, disease prone plants are the result.

This translates into poorly nourished animals and people. The problem is epidemic and is compounding each year as fertilizers extract the remaining calcium and heavy equipment road-rolls our once porous, vibrant farm land. Either oxidation is working for us allowing Nature to perform Her role uninterrupted, or reduction is working against us, excluding air, water and beneficial bacteria thus allowing compaction and acidity "to plug the plumbing."

It is that simple. Oxidation is the key to farming. If it is there, it is helping, or, if not, it is hurting. Oxygen is the key to root development, and calcium creates the physical conditions allowing oxygen to penetrate the soil's lower reaches where big yields can develop. ■

The Growers Solution

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