

## Taking Soil Fertility to the Next Level



**Dwight Koops**  
Regional Vice President

A vast majority of the fields Crop Quest services have soil samples taken on an annual basis. We have thousands of fields with soil test histories dating back more than 20 years. These records are essential when Crop Quest agronomists make fertility recommendations for the planted crops. Fertility reports allow us to look at trends over time. This is especially beneficial when we are deciding on phosphorus, potassium and zinc recommendations.

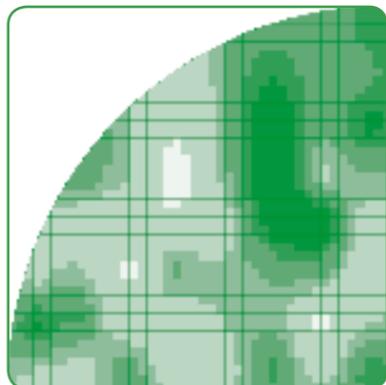
Most of the samples taken by your agronomist are composite, or benchmark samples. The sample is taken from a representative portion of the field, and we try to take the sample from the same area year after year.

The information gleaned from composite samples is extremely valuable when compared with the field's fertility history. However, there are better sampling methods available that will improve how you spend your fertilizer dollars and enhance the overall yield potential of your fields. Crop Quest is capable of pulling samples using GPS technology. There are two main techniques used: grid samples and directed samples.

This involves navigating to specific points in the field and pulling samples in a small area. Many more samples are pulled per field using this method. A map is then made showing the differences in the fertility levels of the field. From this map, your agronomist is better capable of making a fertilizer recommendation that will variably apply fertilizer in only the areas that need it and at different rates throughout the field.

Recommendations also can be made using management zones. Management zones fertilize specific areas of the field with a set rate and other areas of the field with a different rate – giving each area an optimal fertilizer application.

The producers that have utilized these services are finding great benefits to placing fertilizer exactly where it needs to be



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fertilizer give you the greatest return on investment. Variably applying fertilizer has proven to be a very successful means of increasing yield and maximizing your fertilizer investment. Most of the time, we find that less total pounds of fertilizer need to be applied to a field. Sometimes the same amount of fertilizer is needed, but the placement of the fertilizer is vastly different than a broadcast application. This is where we believe the greatest benefit is found. Maximizing the yield potential of the field and improving the consistency of the crop truly enhances the bottom line.

We encourage you to ask about our grid and direct sampling programs. Let us prove to you the benefit of placing the right fertilizer in the proper place. Everyone is looking for ways to save on expenses and improve efficiency. Grid sampling can and will do both. Please contact your agronomist or contact our Precision Services team in Dodge City if you have any questions.

and bypassing areas that do not. Many producers also are identifying higher yield potential in areas of their fields, and actually increasing yield goals in these areas. At the same time, they are identifying poorer areas of the field and making sure fertilizer dollars are not being wasted.

Fertilizer costs have been on a steep rise the last few years. It is imperative the dollars you spend on



# PERSPPECTIVES

OFFICIAL PUBLICATION OF CROP QUEST AGRONOMIC SERVICES, INC.

## Taste of the Rockies

### Coors Brewing Company and Barley Producers Create Quality Beer

Agriculture is present in everything – even an ice-cold beer. Just ask malt barley producers in Colorado, where Coors Brewing Company contracts with area producers to create the high-quality crop later used in its brews.

The crop is perfect for the region, and its cool, arid qualities bring out characteristics in barley that the brewing company seeks. Quality is key to producing great beer, and producers contracted to work with Coors follow strict standards beginning with the seed and continuing all the way to the grain elevator where every single load must meet standards to move on to Golden, Colo., where Coors' brewery is located.

The barley variety used to produce Coors beer, Moravian 37, has been developed by the company for a mix of excellent agronomics and product manufacturing, says Allen Matsuda, Area Manager for Coors.

Matsuda works at the brewery's Longmont, Colo., grain elevator where all of the barley produced for Coors is taken. The company contracts with about 208 producers in northern Colorado, southern Wyoming, western Colorado and the western state lines of Kansas and Nebraska.

"We only grow barley in the high mountain region where the cool nights, combined with river water as irrigation, make the best barley crop," Matsuda says.

This year's crop couldn't be better. As harvest ended mid-August, he estimated that the average field yielded 110 to 120 bushels per acre, and the average quality score was about 75 out of 100 points. So far this year, Coors has purchased about 115 million pounds of barley.

Every producer must be approved by Coors prior to planting, and Matsuda says the company looks for a mixture of qualities that will result in an excellent crop.

"We look for good management practices, the right field locations, ample water supplies – just an overall, good producer," Matsuda says. "We always try to keep expanding our producer base as the brewery demands increase and urban areas expand."

First-year producer for Coors, Chris Wacker, planted 120 acres of malt barley and says the crop is similar to spring wheat.

"I wanted to try a different crop," Wacker says. "Barley works well as a rotational crop after sugar beets. It also conserves water, which was an important factor in the decision."

Before planting for Coors, Wacker had to ensure that the ground to be used was clean – no manure fertilizer had been used on it and nitrogen levels were not too high. High nitrogen levels can increase protein content of the crop, affecting the beer's taste and quality.

All barley acreage is contracted directly with Coors, using the company's seed variety at planting and its elevator after harvest. Quality specifications for Coors are high, and Wacker uses Crop Quest to help keep his barley up to standards.

Shawn Brecht, Crop Quest consultant, works with Wacker to help him achieve his goals. Brecht uses weekly crop scouting, soil testing and herbicide and pesticide management to help Wacker produce the quality barley Coors expects.

*Continued on page 3*

### Mission Statement

Crop Quest is an employee-owned company dedicated to providing the highest quality agricultural services for each customer. The quest of our network of professionals is to practice integrity and innovation to ensure our services are economically and environmentally sound.

<p>Crop Quest Agronomic Services, Inc. Main Office: Phone 620.225.2233 • Fax 620.225.3199 Internet: www.cropquest.com • cqoffice@cropquest.com</p> <p><b>Crop Quest Board of Directors</b></p> <p>President: Ron O'Hanlon Director: Dave Wetmore Director: Jim Gleason Director: Dwight Koops Director: Cort Minor Director: Chris McInteer</p>	<p>1204 Frontview, P.O. Box 1715 Dodge City, KS 67801</p>	<p><i>"Employee-Owned &amp; Customer Driven"</i></p>	<p>PRSRST STD US POSTAGE PAID DODGE CITY KS PERMIT NO. 433</p>
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### Coors Barley Specifications

Moisture	13% max.
Plumpness	100% to 80% = base price screenings, 0 to 20 grams
Plumpness	79% to 75% = thin price screenings, 21 to 25 grams
Color	40 points min.
Protein (M-37)	13.5% max. / 8% min.
Skinned and broken	3% max.
Foreign	0.5% max.
Immature	1% max.
Damaged and diseased	3.5% max.
Frost damage	1% max.
Ergot kernels	0.25% max.
Wild oats	1.5% max.

# QA

by Scott Beguelin  
Division Manager  
Silverlake, Kan.

## Q: Should I spray my soybean fields for aphids?

A. Only about 15% of the fields in northeastern Kansas are infested with soybean aphids, and the infestation levels are fairly light — about a maximum of 50 to 60 aphids per plant in some areas. For the most part, we're seeing aphids in better-conditioned, irrigated fields rather than dryland fields.

So far, we have not made any recommendations to spray for aphids in the area. The infestations came at a late stage of maturity for the soybean plant and are light enough that we don't expect to spray any fields this year. Beneficial insect activity from parasitic wasps and ladybugs has helped keep this area's infestation levels low.

This is the first year we've had a significant amount of soybean aphids in northeastern Kansas, and we're expecting the populations to increase. Iowa, Illinois and Minnesota have had major problems with soybean aphids and those states are still not sure how many bushels they may lose.

Next year, if the populations come in earlier, we could see higher levels of infestation. For right now, we're looking good and should reach harvest before aphids become a treatable problem.

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## Benefits of Early Renewal



by Ron O'Hanlon  
President  
Member, National Alliance of Independent Crop Consultants,  
CPCC-I Certified

As the major crop season winds down, it is again time to renew our crop service commitment to our clients. It is extremely important for farmers to make an early commitment — especially this year. Everyone involved in agriculture is well aware of the effect the drought has had across the High Plains during this season and the past several years. The drought has not only put financial stress on the farmers but also on the Ogallala Aquifer and other water resources. The drought has had such an effect that some fields, and even whole farms, are no longer in production. This year has been just as tough and more irrigation wells are going dry. Due to fields no longer in active production this past season, we were able to realign some areas to make better use of our present agronomic staff to provide the same level of service with fewer employees. In order to position our agronomic staff in areas where their services are needed and desired by their clients, we need an early commitment to renew our services.

I truly believe our services have even more benefit to farmers during these times of stress than when times are good. Crop planning and budgeting is a critical part of successful farming in these trying times. An early commitment from producers allows Crop Quest agronomists to perform soil sampling and testing for additional crop planning, budgeting and cost savings. Farmers get the most value from dollars spent by committing early and having the agronomists planning and working throughout the year on the client's cropping plans.

## Timing Critical for Cotton Defoliation

by Kyle Aljoe  
Area Manager  
Dimmitt, Texas

Proper timing of defoliant applications is critical to profitable cotton production. Before cotton growers can defoliate, bolls need to be 95% to 100% mature, with about 60% of the bolls open.

Generally, the more mature and open the crop, the more effective the defoliant. Early defoliation can result in yield loss. Delaying defoliation too long, however, can result in yield and quality losses and expose producers to the risks of harvesting later in the season when wet conditions are more likely. Even ideal weather conditions can degrade the lint quality and lower the cotton's grade.

This year, the area's cotton is maturing a little later than in previous years. Many growers will probably have to push defoliation back depending on how many heat units are received throughout September.

Keeping a close eye on the maturity of fields is a continuous task this time of year. If the cotton is immature, defoliation preparation should take place about five days before the first freeze to make sure the bolls open properly. A light frost on mature cotton will kill the plant, whereas a hard freeze won't let immature cotton open.

Most bollworms have been eliminated from fields, but we are monitoring an increase in aphid populations. Spraying for bollworms generally kills the aphids' predators and, therefore, increases infestation levels. Aphids can cause sticky lint, which causes problems with processing the lint.

Timely irrigation through the next month and constant monitoring of cotton's progress is important to harvesting a quality crop. Crop Quest recommends that each cotton field be checked weekly to gauge its progress and take advantage of proper defoliation and harvest opportunities.

## Cropping Decisions Based on Higher Energy Prices

Anyone paying bills these days has noticed a marked increase in energy costs. From natural gas to gasoline, prices have been rising, and the effect is felt most acutely by farmers.

The reason for the price increase goes back to basic economics, explains Tim Carr, Head of the Petroleum Research Section at the Kansas Geological Survey in Lawrence, Kan.

"More people want natural gas than there is supply," Carr says. "We've had a colder winter than normal, and we've had increased demand over the last year."

From about April to Nov. 1, Carr says utilities put natural gas into storage around cities. During the winter, the supplies are taken out when demand is greater. Currently, utilities are bidding natural gas prices up for winter storage.

"Supplies nearly went dry last winter so gas in storage is very low," Carr says. "People who heat their homes are willing to pay more than the farmer — keeping warm is not an economic decision. It looks like storage expectations will be met for the year, although companies set records for putting it into storage by bidding natural gas away from industrial and agricultural users."

The price of natural gas in the future largely will depend on the weather, Carr notes. If the remainder of summer is hot, prices will rise, but prices may fall if the winter is warmer than normal. If it's cold, the prices will rise as the storage supplies are depleted. Even hurricanes can influence the price of natural gas. Hurricanes in the Gulf Coast area can shut gas production down and, therefore, increase prices.

"There is not a lot of spare capacity in the whole energy system," Carr says. "Right up to electricity, we're more sensitive to things we can't forecast."

Since natural gas is the major component of nitrogen fertilizers, nitrogen prices will likely rise if the price of gas increases, notes Jim Gleason, Regional Vice President of Crop Quest in St. John, Kan.

"In the past, we have seen prices fluctuate and have even seen shortages of anhydrous ammonia or liquid nitrogen at certain times of the season," Gleason says.

Sharp operators are already planning what to grow next year and taking into account high natural gas prices.

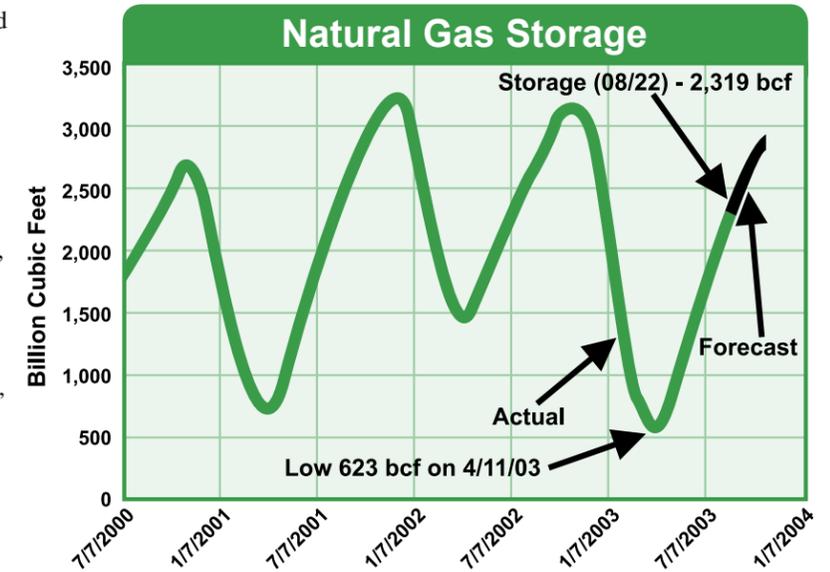
"The crops that we know work in the area each have certain advantages or disadvantages when it comes to the amount of fertilizer they take, amount of water needed for profitable production and the income-producing capabilities they possess," Gleason says.

Corn may still be the best bet even with high fertilizer prices, he continues. It is the preferred grain for finishing cattle.

### Rockies, continued from page 1

In the area, the No. 1 barley pest is the Russian Wheat Aphid. To keep the pest under control, Brecht and Wacker applied Warrior® insecticide to the crop once aphids were spotted.

Every aspect of weather and pest and disease control is critical to the production of Coors-quality barley. Even the color of the kernel is important to the manufacturing process, Brecht says.



Feedlots need feed grain and will pay the going price. If a producer has a history of good yields, then it may be the best crop to grow.

Soybeans definitely use less nitrogen fertilizer and may be a good choice for rotation and weed control purposes, Gleason says. With generic glyphosate, the input costs are pretty low. Soybeans will take the same amount of water or more as a full-watered corn crop.

"Milo and sunflowers also are options," Gleason says. "These crops take half to two-thirds less nitrogen than corn does. They also use less water than either corn or soybeans. Traditionally, they haven't been as profitable to grow but may be a good choice this year."

Cotton also is a good option in areas the crop is adapted to, he notes. It takes less nitrogen and water than some of the crops traditionally grown, and may be a crop worth looking at as a hedge against the high cost of natural gas.

Wheat may be the best choice for some, Gleason advises. It uses half of the nitrogen when compared to corn and can be produced without any supplemental water if the pumping costs are too high.

"We are in a good position to help producers choose the best mix of crops for their operation," Gleason says. "With our budget program, we can evaluate different crops and help decide what will work the best. We have the agronomic ability to know what is practical and reasonable — even with fluctuating energy costs. If fertilizer prices increase, we can help farmers use inputs efficiently to grow the best crop possible."

"The heat in early July caused a concern about heads shriveling, and the rains we had in mid-July combined with foggy, humid conditions caused concerns about the coloration of barley," Brecht says. "We keep a careful eye on the crop because everything is centered on producing an excellent crop for the brewery."