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Crop Quest Agronomic Services

PERSPECTIVES

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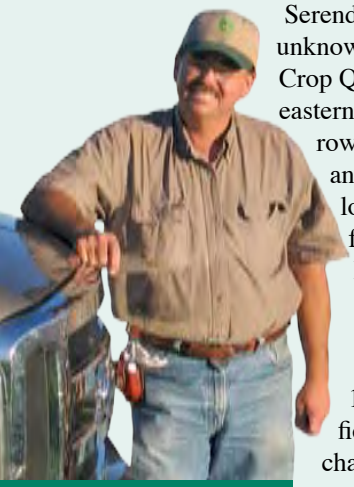
Crop Quest

Making A Difference In Eastern New Mexico

When Jay and Carrie Hollifield decided to expand their ranching operation to include 800 acres of row crop production, they approached it full throttle, investing heavily in equipment and supplies. They quickly learned the one thing they didn't invest in – information – would be their biggest challenge.

In addition to the row crop land, the Hollifields operate a 44,000-acre ranch, raising commercial Brangus cattle. Brown Brothers Ranch has been in Jay Hollifield's family for more than 100 years. Since the early 1960s, the farm has been operating on a share-cropping arrangement with various farmers.

"In 2003, we decided we wanted to get into the row crop farming business, primarily to raise corn and alfalfa for a number of dairy operations that have been established in this area in the past few years. Years one and two were okay, but 2005 was an absolute disaster, and we had to step back and look at things," Carrie Hollifield recalls.



Dwight Menefee

Serendipity took over at that point. Though unknown to the Hollifields at the time, Crop Quest had started a small operation in eastern New Mexico, working with a handful of row crop farmers in and around Artesia. As an offshoot of that operation, Cort Minor, a long-time Kansas agronomist and manager for Crop Quest, came to Brown Brothers Ranch and, according to Carrie, the difference has been dramatic.

"In 2005, one field had some tough production problems and made less than 13 tons of silage. This year, in that same field, we produced 24 tons – the only changes being those recommended by Cort.

Carrie and Jay Hollifield

The other fields on the farm produced over 31 tons," Carrie explains. "He has given us information that has helped us make better decisions on water usage, pest management and fertility," she adds.

One of the big problems with their 2005 crop was a heavy infestation of mites and other insects. "Cort not only tells you what bugs you have in your field, but explains how and when they cause problems, and how to best manage the problems," Carrie says.

"We are new to row crop production, and Cort always takes the time needed to explain what the problem is, why it's a problem, and why we should do one thing or another to correct the problem," she says. "Every week, Cort checks our fields; every week, something new is going on; and every week we understand just how little we knew about growing corn, alfalfa and wheat when we started our farming operation," Carrie adds.

Dwight Menefee, who farms about 1,300 acres of alfalfa, cotton and corn, was one of the first growers in the Artesia area to sign on with Crop Quest. "I would like to give credit to Wayne Netherlin, an enterprising young farmer in our area who had lived in Kansas, for bringing Crop Quest to this region," Menefee explains.

'We first sat down to talk with Crop Quest in 2004. I was impressed with the overall team that Crop Quest has. Though we have one consultant, he has access to all the resources of the company. Even the president of the company, Ron O'Hanlon, came down to visit with us, and he seemed to be just as interested in our farming operation as the guys we worked with initially," Menefee says.

For the first two growing seasons, John Hecht came down from Farmington, N.M., and Kyle Aljoe came up from Dimmit, Texas, to work with the eastern New Mexico growers. "Kyle usually came on Saturday and spent as much time with us as needed," Menefee recalls.

In 2006, long-time Kansas agronomist and Crop Quest manager Cort Minor took on the challenge, relocated to eastern New Mexico

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STAN SCHIELD... 30 YEARS AND COUNTING

By: Ron O'Hanlon, President

Member, National Alliance of Independent Crop Consultants, CPCC-I Certified

I am pleased to announce that Stan Schield, Crop Quest division manager, is celebrating his 14th year with Crop Quest and his 30th year as an agronomist. This is a notable milestone in a career that has seen a fair share of trends, technologies and cropping practices come and go.

Servicing Gray, Meade, Ford and Haskell Counties in Kansas, Stan is a native of Goodland, Kan., and was raised on a farm in Cheyenne County, Kan. Stan attended Kansas State University and obtained a B.S. degree in agronomy in 1974 and a M.S. in soil fertility in 1976.

Stan started working as a crop consultant in March 1976 in Montezuma, Kan., and was quickly realized for his astute attention to detail and professionalism by being named one of American Cyanamid's 'Consultants of the Year.' In our business, that continues to be recognized as a highly prestigious award that few agronomists can claim as being honored with.

Stan has seen (and been a part of) a lot of agronomic changes over his 30 years as an agronomist. He has seen the innovation and use of no-till and limited-till practices in dryland crops, as well as the beginnings of the reduced-till and strip-till movement in irrigated crops. Most recently, he has seen the introduction of cotton in southwest Kansas and the use of GMO crop varieties for weed and insect control.

Schield also has seen his service area go from nearly 70% to 80% flood irrigated in 1976 to almost totally sprinkler irrigated today. Stan has been a part of the movement that introduced and implemented major changes in sprinkler nozzle packages using low pressure drop nozzles and subsurface drip irrigation for water conservation. He has told me countless times that these have been exciting changes that have allowed his growers to better utilize their natural resources.

Because of Stan's educational background in soil fertility from Kansas State University, he has been instrumental over the years in training many of the Crop Quest agronomists in their soil fertility knowledge. Stan has been a real asset to our company, while touching the lives of most of our new employees. We're all blessed to be able to count Stan Schield as a friend and colleague.

Crop Quest Making A Difference ... *Continued from Page 1*

and is making a significant impact on the farming community.

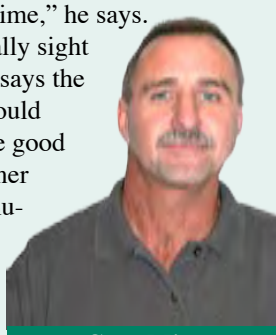
"This year Cort took a look at our insect management program and made some changes in the insecticides we were using to control alfalfa weevils. Changing us from Furadan® to Warrior® nearly offset the cost of his services," Menefee contends.

The eastern New Mexico grower says he and his neighbors like that Crop Quest is there to help them 12 months a year. "Cort not only draws on his experience, but also that of other Crop Quest agronomists, and that information has helped us make better decisions on soil fertility and water management in all our crops," Menefee stresses.

Though his cotton acreage was limited during his career in Kansas, Minor sees things in Menefee's 500 acres of pima and upland cotton that the New Mexico grower never knew were there. "We never had access to soil moisture monitors, and now we measure at 1-, 2- and 3-foot depths every week. When you only have access to 3.5 acre feet per year of irrigation water, knowing where, when and how much to put it to best use is critical," the New Mexico grower adds.

Menefee and the Hollifields share optimism for the future of farming in eastern New Mexico. "For example," Menefee says, "it looked for a long time like our alfalfa yields were going to be stuck at six to seven tons per acre. Now," he says, "growers are optimistic that number may be closer to 10 tons per acre in the future."

For his part, Minor takes his popularity with eastern New Mexico farmers in his typical Midwestern stride. "It was a big professional challenge for me. I wanted to do something different and this was a good opportunity that came along at the right time," he says.



Cort Minor

Quick to point out that farmers took a basically sight unseen chance on him and Crop Quest, Minor says the major share of the success in the 2006 crop should go to the farmers. "They did the hard work, are good managers and got things done in a timely manner which is critical for top production. The communication and sharing of information back and forth allowed us to try new ideas that we thought would fit into their operation and increase income. I'm looking forward to continuing to help my clients be more efficient the longer we work together," he says.

From the grower's perspective, Carrie Hollifield and Dwight Menefee say they are looking forward to tapping into additional expertise offered by Crop Quest. Some of the high-tech precision agriculture expertise offered by Crop Quest is of great interest to both growers, as is learning more about grid sampling and other cost-saving techniques.

"The bottom line," Menefee says, "is they are making us money … and we like that!"

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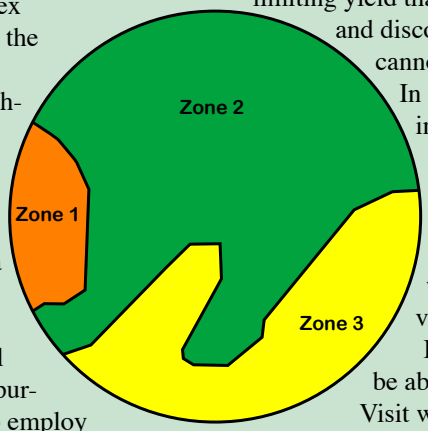
®Warrior is a registered trademark of Syngenta Crop Protection, Greensboro, NC.

Management Zones

By: Nathan Woydziak
Precision Ag Specialist

Zone management is a simple concept. Whether we know it or not, most of us have thought about it before. Have you ever thought to yourself, "Why are areas within this field acting differently?" If so, then you have considered the concept of management zones. Basically, you've taken the first step toward implementing management zones by defining areas of similar characteristics. A management zone is an area or group of areas within a field generally having similar characteristics which encourage one to manage it jointly.

Creating management zones can be as simple as splitting a field in half. However, zones can also be quite complex depending on the information one uses to derive the zones. The final purpose of the zone will help determine which pieces of data to use in establishing the zone. For example, if the final goal is to implement variable rate fertilizer application, then yield data, soil analysis and soil type may be more relevant. However, if variable rate seeding is the goal, then elevation and yield data may better define the zones.



Yield data, electrical conductivity, historical knowledge, soil type, elevation, terraces and soil analysis can all be used to delineate zones. The purpose of delineating these areas is to allow one to employ better management practices.

The second step in implementing management zones is determining management practices that fit one's philosophy for the zones. This is a point of interest because, based on that philosophy, you could decide to take different paths. For example:

- **If you assume you have reached maximum production with high inputs, and yet still have areas within a field under-producing, then adjusting the inputs to a level more comparable to the yield for the lower-producing areas would be more efficient and could result in savings.**
- **If you assume a correctable factor is limiting production in a particular zone, you may try to remediate that limiting factor, thus increasing the yield for a zone.**

A producer may even begin with the idea that something is limiting yield that can be adjusted (fertility, seeding rate, etc.) and discover after a few years that the limiting factor cannot be controlled through management practices. In which case, one could switch philosophy assuming maximum production has been reached.

It is important to keep in mind that as the tools we have available change, we need to reevaluate the philosophy behind our management zones. If we aren't willing to adapt to these changes, we may overlook something that could provide value.

By splitting a field into smaller areas, you should be able to attain more accurate product placement. Visit with your Crop Quest agronomist when you are ready to have them guide you toward implementing your philosophy on management zones.

Planning For The 2007 Growing Season

Crop Quest agronomists spend many hours working on crop budgets with their customers. This is a tedious task, but one that is vital to a successful crop management plan. Timely crop planning and budgeting allows producers to react to changes in market prices, input costs and weather patterns – just to name a few.

Planning can also help producers prioritize equipment repairs and fieldwork. Early planning allows for a higher level of knowledge for decision-making, whether that means being better informed about hybrid selection, pesticide knowledge, efficient use of fertilizers, alternative tillage systems, planting alternative crops or a host of other information.

With so much biotechnology incorporated into our seeds, planning becomes a major priority. Not many decisions can be made until the specific seed with specific traits is chosen for a field.

With the continued uncertainty of energy and commodity prices, it is imperative that we look at as many reasonable scenarios as possible to help make the best decisions we can. Your Crop Quest agronomist will be glad to assist you with those tasks.

Cropping decisions are not made completely for their effect on the bottom line. We need to look at the long-term goals of each field as well. Some of those goals include crop rotation, soil fertility levels, stubble management, crop water use, pest pressure and the options for control under different circumstances.

Each year, there are possible marketing opportunities that can be taken advantage of. As in the past, we may see some higher grain prices over the winter months. Position yourself to take advantage of these opportunities and don't be afraid to lock in a profit when the opportunity arises. If you know your breakeven prices, you will be in a better situation to achieve your price target goals.

We want to help you make the 2007 crop year a very profitable year. Take advantage of the Crop Quest planning and budgeting services. The decisions we help you make prior to the first seed going in the ground will most likely be the most profitable decisions of the year.

By: Dwight Koops
Regional Vice President
Ulysses, Kan.

Future Roundup® Ready Systems Will Require More Management

Roundup® Ready (RR) soybean, corn and cotton varieties hit the market with a bang in 1993, improving weed control at a lower cost and reducing management and labor costs, and generally allowing growers to produce more acreage.

Subsequent introduction of RR varieties with stacked genes for insect control has changed in a big way how cotton and, to a lesser degree, corn and soybeans are grown. Now, seed for smaller acreage crops, like alfalfa, have been introduced into the market, creating more opportunities for growers to change their crop management strategies.

Along the way, RR systems have opened the door for more widespread use of strip-tillage and other reduced or no-tillage systems. Across the country, this reduction in fuel and labor needs, plus economical weed and insect control, have provided more impetus for more farmers to increase acreage.

Along with the good comes the bad. In recent years, RR systems have encountered increasing weed resistance to glyphosate, the herbicide component of these crop protection systems.

"We are probably seeing the early phase of marestail resistance in Kansas," says Crop Quest agronomist Scott Beguelin. "Virtually all the soybeans in the state are Roundup Ready varieties. Corn growers have been slower to adapt to Roundup Ready hybrids, unless they have specific weed problems, like Johnsongrass or shattercane," he says.

Many growers use RR hybrids to get the Bt gene for insect control, or because the RR hybrids are highest yielding under the grower's soil and environmental conditions.

Though not a big problem yet in RR corn and soybean varieties, Bt gene-stacked cotton varieties have been so highly successful at controlling bollworm and tobacco budworm that few other insecticides are used. The result is from California to the Carolinas, the increase in damage from aphids, stink bugs, lygus bugs and many other secondary pests that were routinely controlled by organophosphate and pyrethroid insecticides, are no longer being controlled.

In south-central Kansas, Crop Quest agronomist Ken Seiler says most corn growers still choose hybrids based on yield potential. In some cases, he says, they may use a Bt-stacked corn hybrid in areas with a history of corn borer or rootworm. "We haven't seen any new insect problems in our area from using Roundup Ready systems stacked with the Bt gene," Seiler says.

A big reason that Seiler, Beguelin and other Crop Quest agronomists are concerned about the overuse of Roundup Ready systems has been the documented cases of glyphosate-resistant pigweed. Water hemp resistance was recently documented in Missouri, and researchers there suspect it may be more widespread than initially believed.

The big culprit is Palmer amaranth, called big-seeded pigweed or Palmer pigweed in different areas of the country. This plant produces 400,000 to 500,000 seed per head and pressure on nonresistant pigweed plants from overuse and continual use of glyphosate can dramatically increase the spread of resistance weeds.

"When we first started using Roundup Ready soybeans, one application of glyphosate usually took care of weeds. Now, we are spraying three to four times to do the same job in central Kansas," Seiler says. "We are seeing multiple germinations in the summer and, with minimal sunlight, pigweed grows through the canopy."

Seiler and Beguelin agree the alternative to increasing resistance problems is rotating different herbicides with different modes of action. Knowing the mode of action of herbicides will become increasingly important.

Fortunately, Crop Quest agronomists have stressed herbicide rotation for a number of years. More emphasis will be placed in the future on helping growers understand the different modes of action of herbicides and to even more careful planning of herbicide uses in rotation crops to ensure the long-term viability of Roundup® Ready systems in both conventional- and reduced-tillage cropping systems.

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.

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