



# Southwest Family Farms

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## 2017 Was on Fire!

In March, thousands of acres of farmland and pasture were scorched by wind fed wildfires in Texas, Oklahoma, and Kansas. More than 650,000 acres were scorched by wildfires in Kansas alone in early March. The wildfires were propelled by 70 mph winds and left a path of destruction that is simply unbelievable. Ranchers lost hundreds of cattle and thousands of acres of grass. Barns, equipment, fence and homes were destroyed. Locally, in Seward County wildfires were a threat as well. The damage was far less than the damage to our east, but there were still homes destroyed and equipment lost.

Shortly after the fire, the area received some very beneficial precipitation. Unfortunately, some of that moisture came in a huge blizzard on April 30. We received about 2" of rain followed by more than 16" of snow in Morton County. It is very uncommon to receive snow that late in the year. Our wheat was headed out, we had planted some soybeans, and we had 2" tall corn when the snow fell and the temperatures dropped. We were grateful for the moisture, but we had no idea if the wheat would make it through the snow storm. Luckily, the snow had laid all of the wheat over and kept the heads insulated from the below freezing temperatures. We did lose some yield due to the wheat lodging, but the rain and snow came at an ideal time to supply the wheat with enough moisture to help it through the critical grain fill period. This year definitely reminded us to keep faith in the Lord and trust his timing for all things. It remained wet until late May and many farmers struggled to get their crops planted. We lucked out and were able to work long hours to get most of our crops planted in good time. After planting, a thirty day dry spell was welcomed right in the middle of wheat harvest. We had a wonderful wheat harvest with good yields and weather. We were short handed, but were fortunate to have some family members step up and help us harvest. Needless to say it was a great harvest with some really good help!

We had planted more dryland corn than ever, and we were blessed to catch the rains needed to produced a beautiful crop. Across the farm, we had some of the best dryland milo and corn yields that we have ever had. Of course the rest of the nation was producing a record corn crop as well, which kept downward pressure on prices.

Once harvest was completed, we shifted gears and began strip tilling and fertilizing for our 2018 crop. We had nice weather that allowed us to get all of our fertilizing done on our irrigated ground. Currently, we are in the office making preparations for the end of the year and the guys have been working hard servicing and maintaining our center pivots. We still have a long list of things to get done, but we are thankful and blessed for the year we had. Have a Merry Christmas and a safe and prosperous 2018!

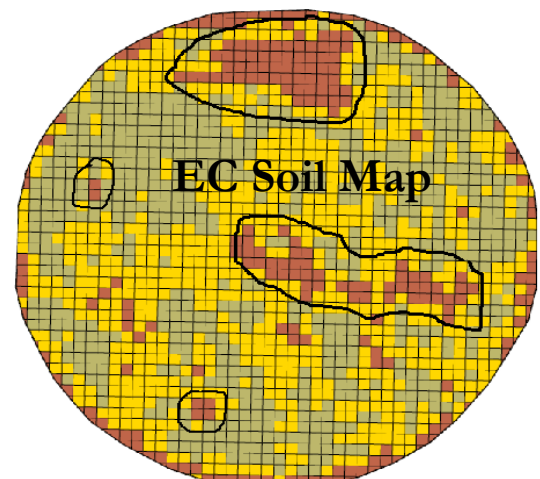
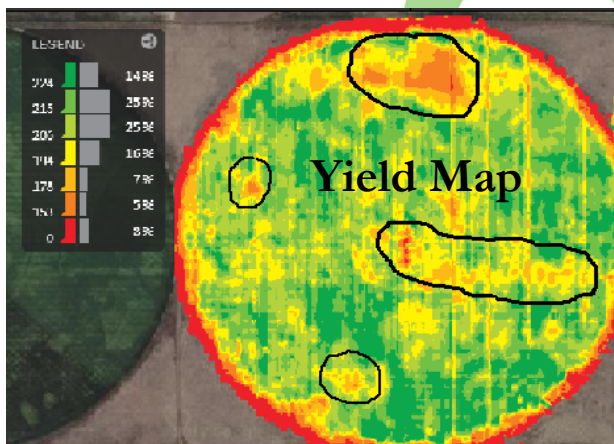
## Data, Data, Data

As a producer, you cannot attend a conference or read a farm magazine without hearing about ‘data’. It’s a big buzz word in ag. Data has always played a huge role in our operation. Technology has evolved rapidly after the introduction of GPS and auto guidance came into the ag sector. GPS allows us to pinpoint yield based on location as the combine moves through the field. Many call this precision farming, but we take it a step farther to what we call prescription farming.

Our first step in the prescription farming process is to “map” the soil. In doing this, we pull a small implement with coulter. Half of the coulter send out an electronic pulse, and the other half record the electrical resistance the signal has traveling through the soil, giving us an electrical conductivity reading. While doing this, the GPS receiver records the location of every reading and each data point creates a map like the one pictured below. Every year soil samples are pulled from each zone and sent off to a soil testing lab. Fertilizer recommendations are then prescribed based on the soil’s ability to produce. Areas of the field with a low EC value lack the ability to be highly productive soils. They either have a higher sand content, low Organic Matter content, or another variable that limits its ability to raise top end yields. These zones are then prescribed a lower rate of fertilizer and also a lower population of seed.

The map below on the left is a yield map that illustrates how the yield varies across this field. You can also see that the lower yielding areas (yellow, orange, red colors) match up with the low EC zones (red zones on right map) from our soil zones. By studying yield maps and scouting fields it becomes clear that these zones always produce less, leading us to either invest ways to improve the soil (which may not be possible) or reduce our inputs in those areas. Variable rate applications can be applied to irrigation, fertilizer, seed, and chemical. Our goal is not always to reduce our overall application, but rather apply inputs to areas of the field in which they will have the greatest return on our investment.

It takes years of harvest data (yield maps) and a lot of experimenting to get comfortable with the technology, but year after year we continue to see positive results. We use the information to adjust our farming practices to achieve the correct balance to maintain profitability. This technology allows us to become more sustainable by directing and utilizing our resources where they will be used more efficiently and economically.





## The Return of Cotton

For the first time in nine years cotton has made its way back into our crop rotation. Cotton is a very drought tolerant crop that thrives with warm weather, and requires 1/3 of the amount of water that corn or beans require. When we previously grew cotton, we struggled with chemical drift from neighboring fields harming our crop. Cotton is highly sensitive and susceptible to injury from the spray drift of a very common herbicide called 2,4-D. The drift or volatilization of 2,4-D can travel more than a mile if conditions are right. Recently, Dow AgroSciences released a new cotton gene that is tolerant to 2,4-D. Chemical drift is not an issue now, and we can actually spray 2,4-D in the cotton fields to help control problematic weeds. Another issue that we faced was the labor required to harvest cotton. During cotton harvest, we were often short handed and inefficient. John Deere has introduced a new cotton harvesting machine that will strip the cotton and wrap it in a round bale, also called a round module. What used to be a 6 man crew is now a one man show! The new cotton strippers are large, impressive machines and make harvesting more efficient. We were very pleased with our cotton crop and looking forward to growing more next year.



### By the Numbers

-A "round bale" AKA a "round module"

A round module weighs 4-5,000 pounds

-A Round Module is about 92" in diameter

-One circle of cotton will yield about 120-150 Round Modules

-One Round Module contains about 3 bales of lint



One Round Module will make:

-645 pairs of blue jeans

-3,651 men's T-shirts

-9,255 diapers

-12,963 pairs of socks

-75% of a US dollar bill is made from cotton



