

Smart Irrigation Solutions for Wheat



LOCATION:

Spring Creek Farms located in Manhattan and Toston, Montana.

PROFILE:

2,000 acre of diversified crops including wheat, seed potatoes, alfalfa, malt barley, corn and peas.

CHALLENGE:

To help feed the world and produce greater yields with fewer resources; to effectively monitor and control pivots in fields 35 miles apart, identifying issues in a timely manner.

SOLUTION:

More consistent and efficient use of water, effective fertigation at key growth stages, our anytime monitoring early in the morning or late at night, and Fewer trips to monitor pivots saving our growers time and fuel.

Valley Pivots with Remote Management Supports Diversified Crop Portfolios

With a shorter growing season and farms located 35 miles apart, Nick Venhuizen and his brother, Tim, must get creative to be efficient with their operation. The two oversee nearly 2,000 acres of irrigated land, which they use to rotate a variety of crops including seed potatoes, malt barley, corn, peas, alfalfa and wheat. They are the third generation of Venhuizens to raise wheat, which their grandfather began growing, along with hay, to support his Hereford cattle business.

“We rotate roughly 800 acres of wheat with seed potatoes because a number of spring and winter wheat varieties produce really well in southwest Montana. Rotating crops not only helps maintain soil health; it also breaks up disease and weed cycles,” said Nick.

When their father, John, started farming in 1974, more attention was placed on grain production. In addition to wheat, he eventually started planting seed potatoes, and the operation has continued to diversify over time. In 1990, they implemented their first Valley pivots to begin transitioning the operation to mechanized irrigation. Today, the Venhuizens own 10 Valley pivots and one linear, in addition to leased ground that relies on Valley machines. They use a few pivots from other manufacturers, as well.

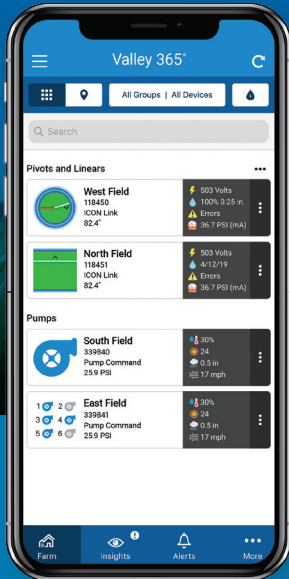
Pivot Systems Provide Support for Wheat Production

The Russian invasion of Ukraine has raised concern for wheat availability across the globe because the two countries account for 30% of the world’s wheat production. While Spring Creek Farms produces from 300-800 acres of wheat, depending on the year, its high protein content – and rising market price – offer more reason for United States producers to consider bringing wheat into their own portfolio.

“Wheat often does well in Montana because of its shorter growing season. We’re in an arid area, so keeping the rootzone saturated as the plant grows is really important. Valley pivots and linears with remote monitoring and control make it easier for us to keep a close eye on our crops,” stated Nick.

“The usability and features of Valley technology make remote monitoring and control really easy. The interfaces are more user friendly than others I’ve seen, and I rely heavily on the ability to use my phone to monitor fields 35 miles away.”

– Nick Venhuizen



Covering More Ground with Remote Management

Spring Creek Farms consists of two primary locations 35 miles apart. The Venhuizen brothers rely on technology from their Valley Dealer, Aquatech Irrigation in Belgrade, MT, to remotely monitor and control their irrigation.

“I use smart irrigation solutions from Valley to check pivots first thing in the morning from my phone to see which direction I need to go,” said Nick. “If I’m doing work in a field and need to move a pivot, it lets me get it started and moved over so I don’t lose any time. It has made a world of difference in terms of time savings.”

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Pivot Irrigation Enables More Responsible Water and Chemical Use

While they’re concerned with keeping the soil saturated, the Venhuizens are also diligent in conserving water use. Pivots often run at night to minimize evaporation and maximize absorption. When the wheat enters the flower stage, the Venhuizens either cut back or turn off their irrigation systems to minimize fungal pressure. Additionally, fertigation using their irrigation systems has become a key element of the operation.



“A large part of wheat yield is your ability to spoon feed what the plant needs through fertigation. Rather than relying on dry bulk fertilizer before we plant, we now pull soil and leaf samples and will fertigate or give a nitrogen boost– whatever’s needed, and only if it’s needed. The Valley machines can do a high-speed pass over the crop while

fertigating, allowing us to put down as little as 0.1” of water, which allows a ‘foliar feeding’ effect in wheat. Our Valley machines help save costs, both in the amount of material and in the time needed to apply it.”

Nick relies heavily on the ability to test the soil and control water usage to prevent or minimize stress on the plant. Keeping the soil at the right moisture level through the growth stage, as well as more precise fertigation, is proven to improve wheat yields. “I believe there may be a need to keep more wheat within the United States and that may create a unique opportunity for producers. If you have access to markets and elevators, and are faced with a shorter growing season, wheat could be the perfect addition to your operation,” he said.

“The population here is changing at rapid speed, as it is in other areas of rural America, and I believe farmers are going to have to start proving they’re being responsible about water use. In areas where drip irrigation isn’t feasible, pivot irrigation is by far our most efficient use of water, especially for broadacre wheat production,” Nick concluded.