

# Valley Insights®

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**LOCATION:**

Grant 4-D Farms  
Headquartered in south-central Idaho near Minidoka, with operations near Twin Falls, Murtaugh and Filer, Idaho, as well as Nyssa and Fields, Oregon

**PROFILE:**

Land is 20% owned and 80% rented, all irrigated

Main crops are potatoes and sugar beets, with malt barley, hay, triticale, corn and other small grains in the rotation

Water pumped from the Snake River, canal systems and wells over an aquifer

**EQUIPMENT:**

- About 80% Valley® pivots, 20% other brands on rented land
- All owned pivots are Valley
- Valley BaseStation3™ for telemetry
- Valley Insights®

**VISUAL DETECTION:**

- Incorrect nozzle package and plugged nozzles
- Early crop damage from wind & frost
- Volunteer potatoes from previous year's crop invading current year's corn crop

**ACTION TAKEN:**

- Changed nozzles
- Replanted sugar beets within proper timeframe
- Implemented corrective measures for harvesting
- Determined last year's losses and adjusted potato harvest this year to maximize crop

**RESULTS:**

- Better irrigation practices
- Higher yields and healthier crops
- Improved planting, and adjusted harvesting practices for future years

## Grant 4-D Farms Use Valley Insights® To Track Irrigation, Planting & More

When Taylor Grant's grandparents homesteaded and built their 12' x 8' cinder block home in Idaho in the 1950's, they never could have imagined the growth future generations would build. Today the operation employs five members from the third generation and one from the 2nd generation on the farm.

Grant 4-D Farms was named for its founder, Douglas Grant, along with his three sons, Duane, David, and Douglas Jr. They're headquartered in Minidoka, Idaho, about 2-1/2 hours east of Boise. They also have operations near Twin Falls, Murtaugh, and Filer, Idaho, one based out of Nyssa, Oregon, and another near Fields, Oregon.

Taylor Grant is the third generation to farm at Grant 4-D Farms. He says they own about twenty percent of ground they farm, and rent the rest. All told, they farm about 35,000 acres, and it's all irrigated. That's a lot of ground to cover – literally.

Their irrigation setup is approximately 80% Valley® pivots and 20% other brands. They run their pivots with telemetry, primarily BaseStation3™, along with AgSense® and an additional telemetry brand.

With so many pivots, operations and crops to track, they welcomed the opportunity to try Valley Insights®. Valley Insights uses imagery to determine crop health concerns related to irrigation and other factors. It does this by feeding the imagery into algorithms with artificial intelligence technology to detect anomalies, and then notifies the grower about what's happening so they can take proper action, saving time and resources, and increasing profitability. Grant 4-D Farms utilized the service for four of their Idaho operations.

"It's a lot of acres to cover, and it was good to get a different perspective from an airplane," says Grant. "Plus, I don't see the areas nearly as frequently as the farm directors or irrigation managers see them, so it was a quick view for me to see what's happening."



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## Early-Season Insights Save Crops

Grant says at the beginning of the season, establishing correct irrigation patterns is a big challenge. It's crucial to catch those issues early to avoid crop damage. Valley Insights helped them make the proper adjustments in a timely manner.

For example, at the Murtaugh farm, about 4,000 acres are under pivots, and it takes a while to check them properly. Valley Insights alerted them that one of those pivots was under-watering, and they replaced the entire sprinkler package. Because Valley Insights caught the problem early in the season, the team could take care of it before crops were damaged.

“There were quite a few of those irrigation tweaks, where it was pressure or nozzle issues or just plugged birds,” says Grant. “Those at the beginning of the season were very, very helpful.”

Valley Insights spotted more than irrigation issues to help stave off crop losses.

Grant explains, “We had a really hard spring with our sugar beets, with both frost and wind damage. Twin Falls County had the highest amount of replants in recent history for the Amalgamated Sugar Company. You can see so much from the ground level, but once you start looking at it from the top down aerial view, you can see a lot more of what the damage looks like.”

About 20 acres of newly planted sugar beets had frozen and then had blown away. “There was just nothing there. There was no crop. That day we got a sugar beet planter out there and replanted.”

## Influencing Future Harvests

In another field, a strange anomaly was occurring. It looked like weeds were invading a corn field, but in organized rows. After close examination, it turned out to be volunteer potatoes from last year's crop. Grant says they used the imagery from Valley Insights to see how extensive the losses were from last year.

“We tried to figure out how many pounds to the acre of potatoes were left in the field from last year, simply from the harvesters not going deep enough. There's nothing I can do about it now from last year's crop, but we did take corrective measures and talked with our harvest operators. Now everybody's looking at how deep they're going and following up. So, we're fixing it for years to come.”

## Creating a Better Crop

Proper irrigation is important to crop health at every stage of the growing season. Valley Irrigation provided important information, so Grant could adjust irrigation at every step.

“Fixing issues for irrigation is top priority at the beginning of the season and throughout the season,” says Grant, “because when it comes to potatoes, consistency is absolutely crucial.”

Harvesting stressed potatoes along with healthy, high-quality potatoes can wreak havoc in storage. The stressed spuds start to break down quickly, which then affects the healthy potatoes around them.

In the end, he says, Valley Insights is a valuable tool that results in “better crop, better quality, better yield, and then in the end better storability.”