GROWING POTATOES IN IDAHO WITH THE HELP OF MAGNATION WATER TREATMENT

Searle Farms, Shelley, Idaho

Potatoes are the leading vegetable crop in the United States. Although potatoes are commercially grown in 30 states, Idaho leads the U.S. in potato farming accounting for roughly one-third of the U.S. potato crop. Every spring Idaho farmers plant over 320,000 acres of potatoes that supply a variety of different markets ranging from seed to fresh to processing. About 60 percent of Idaho's potato crop is processed into french fries, tater tots and other fried products, or dehydrated into chips, flakes and various other forms. Statewide, the crop is valued at $900 million per year. Idaho farmers spend approximately $2,500 to cultivate one acre of potatoes, times 320,000 acres is a cost of $800,000,000 to produce this tasty crop. it makes sense to implement innovative methods of cost-effective—and sustainable—production as margins are clearly tight.

One grower, Bryan Searle, has been farming in Idaho his entire life. When Searle was a boy, his father farmed several hundred acres. Now, decades later, Searle Farms has grown to encompass 5,500 acres spread over 30 miles in southeast Idaho. Having had such a wealth of experience, Searle knows he needs to keep on top of critical issues that impact his operation regularly such as water quality, irrigation practices, fertilizer application all to optimize yield and boost profit.

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~ Bryan Searle, Shelley, Idaho

Currently, Searle's priority is getting the most out of the water that he needs to use for his crops. "We are concerned with our environment, especially with the water shortage we've been experiencing in recent years. Magnation has provided us with a way to grow better crops with less water... and it's helped us stay in business and stay profitable."

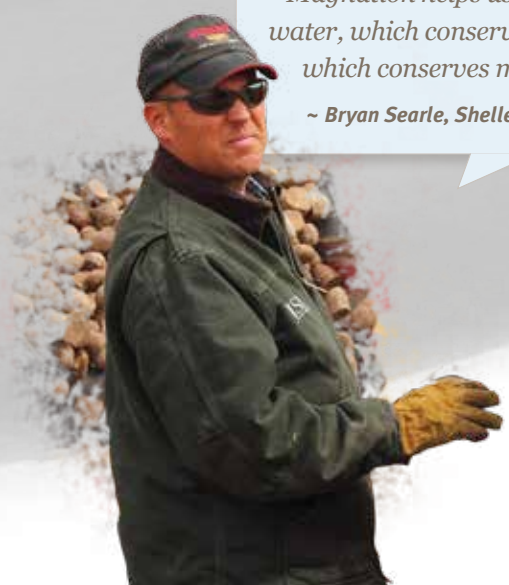
TESTING THE EFFECTS OF MAGNATION

One common practice in potato farming is testing plant tissue (petiole) to monitor nitrogen and other nutrient levels in the crop as it grows. Keeping apprised of the condition of the plant health and growth is essential for determining how much water and fertilizer is required. According to Searle, "For the variety of potatoes we grow, the conditions need to be fairly consistent; nothing too extreme. Too dry or too wet... too much fertilizer or not enough fertilizer... you're going to have problems. The quality of the potatoes are affected by these fluctuations. So, it's critical that the water is near perfect."

After Searle was introduced to the Magnation water treatment products through one of his equipment salesmen, he decided it was worth it to try the solution on one of his fields that was about three-quarter miles long. He had one irrigation pivot on the south end of the field and one on the north end. Searle installed a Magnation unit on the north half of the field, the southern half was not treated. Searle carefully watched and tested for results throughout the growing season. After the potatoes had been in the ground for about 60 days, he ran petiole tests to compare the plants from the two different sides of the field. The results convinced him that, indeed, Magnation was having a very positive effect.

"Our nitrogen levels, in fact, all of our levels were higher on those fields that were treated with Magnation," said Searle. "We tested and monitored the crops throughout the year and we also found that the Magnation side was wetter than the south side. We actually shut off irrigation intermittently for the north end, which was really unusual." Magnation helped Searle save water. He estimates about 3 revolutions – that's 2 inches – less water. "We saved about one week's worth of irrigation," said Searle. "At least 10% less water was needed on the Magnation side."

In addition, Searle found that on the half of the field that was treated via Magnation, they could reduce the amount of fertilizer they needed. "We used 30 units less of nitrogen, and still had higher petiole readings! 30 units of nitrogen is typically $18 per acre. Times that by 130 acres of land that the Magnation pivot covered and that's a tidy sum of savings, not only in water and fertilzer, but also savings off of our power bill. And that all adds up."



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REDUCING WATER USAGE, INPUT COSTS AND MAINTENANCE

Because Searle was so impressed with the results from Magnation, the next year he purchased another four 14" Magnation units to cover over 1500 more acres. Again, he was amazed at the outcome: "It was an extremely hot summer. Our water consultant told us that we would not, under those conditions, ever be able to shut our water off that season. As it turned out, by using the Magnation units we were able to intermittently shut off the water... for 24 hours here or there. I have no doubt that using Magnation definitely helped the ground retain water and moisture."

According to Searle, "Magnation is an important tool in our toolbox that has definitely helped. The great thing about Magnation is that it doesn't require maintenance, it doesn't require electricity, and it can be installed simply and easily. It helps us conserve water, which conserves power, which conserves money." Searle, who has been using Magnation products for almost 8 years now, assures others who ask him about his success with the product. "You will definitely see results and be confident in your investment within two years. When you don't use Magnation, it costs more to grow your crops, just on input investments alone. Magnation will definitely reduce the need to continually put on more fertilizer to help with nutrient uptake and water uptake for better results."

Another important realization that Searle came to was about the longevity of the Magnation solution. He concluded that, although there are other solutions to help with water and uptake, those methods typically last for only one growing season at a time. "If I put chemicals on my potato crops this year, next year I have to start over again and do the same thing," said Searle. "Magnation's guarantee and the results I've experienced over the past eight years, assures me that this solution will last for multiple years without any decrease in effectiveness, and that's a big plus." Searle's reasoning is sound and the calculation is simple. If you divide the cost of the Magnation system by the number of years it is guaranteed to last, the return on investment is hard to beat. Searle's conclusion: "Once you install Magnation on your irrigation line, off you go... it's easy, it's affordable and you will see results!"

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