

Project

Nevada Ranch

New Fertilizer Platform



Project Name	Nevada Ranch
Country	
General Description	<ol style="list-style-type: none">1. Project size: 240 acres2. Type of project: Open Field3. Crop: Onions4. Irrigation Method: Drip5. Water source: Canal, Irrigation District, Well6. Inlet / Pumping Pressure: 40 to 52psi, depending on set7. Flow data: 1870 to 2100gpm (set dependent)
Installation Date	New installation, 2016
BERMAD Solution	<ol style="list-style-type: none">1. Chemical Injection Platform2. Components: Chemical Injection, Bermad MagMeter3. Project USD value: \$30,000 (2017), \$450,000 (2018)
Project Story	<ol style="list-style-type: none">1. Customer used to irrigate 12-hour irrigation sets with 8 to 10 hours of fertilizer application. There are five fertilizer tanks on site. The Chemical Injection Platform is able to simultaneously inject all five fertilizers, and acid to maintain a constant pH.2. Previously, could only inject one fertilizer a time and in bulk. Resulting in sipping of nutrients into the ground, away from the roots. The injection of the fertilizer required that a laborer be on site the entire time, adding each chemical as the previous one is used up.3. The problem with this method is that the pH of the solution is not monitored, nor could it be controlled, resulting in plants not being able to use the chemicals.4. Bermad solution has pH and EC monitoring and control. This allows the customer to control the pH while dispensing the various fertilizer cocktails. Some fertilizer mixes work best at specific pH ranges. In this case, a pH of 5.8 to 6.0 is ideal. Without Acid injection, pH is about 6.8 to 8 depending on water source.5. Customer is able to monitor and control fertilizer application in real time. Customer can also track hourly and daily accumulation through the Bermad Automation Console that was included with the Chemical Injection Platform.6. Customer is able to monitor pH and EC changes in real time. The time variance between injections of Sulfuric Acid to reduce pH to seeing its effect on the console is a couple of minutes. The console provides a real time graph of those changes.7. A Bermad MagMeter was installed to insure highly accurate flow measurement. <p>Conclusion: Customer is able to reduce the irrigation time to 4, 6, and 10 hours depends on the crop demand, and inject the NPK directly to the root zone at optimum efficiency. This result in increase of yield quality and quantity.</p>