

#FridaysOnTheFarm: Digging Deep for Cover Crop Solutions

Each Friday meet farmers, producers, and landowners through our [#FridaysOnTheFarm](#) stories. Visit local farms, ranches, forests, and resource areas where USDA customers and partners *do right and feed everyone*.

This Friday meet Cameron and Natalie Andelin, a farming couple who chanced growing their operation amidst a sprawling urban environment on the outskirts of Reno, Nevada. They met that challenge and exceeded it, turning their 100-acre farm into a true gem in the community where they're currently testing a cover crop mix to improve soil health.

Taking Chances

Nevada is known as a place for rolling the dice and taking chances. In 2009, Cameron and Natalie took a chance and moved their family to Cameron's family's farm in Spanish Springs.

"As we converted some of our fields, particularly when we transitioned the pasture into a corn field, we found that flood irrigating on cultivated land is pretty difficult with erosion problems," said Cameron. With this in mind, the Andelins worked with NRCS to strengthen their operation.

"We started working with Cameron and his family initially on the high tunnel pilot program in 2011," said Jessica Gwerder, NRCS soil conservationist. "At that time, he was just growing pumpkins. Once that project was completed, Cameron asked us what else NRCS can help with, and we talked about the irrigation on his fields. According to the [NRCS Web Soil Survey](#), the soils were very coarse, and they were losing a lot of water and not getting the production that he wanted."

To solve this problem, Jessica worked with the Andelins to convert three of their fields to wheel line sprinkler irrigation. They used an existing pond and new underground pipeline supported through USDA's [Environmental Quality Incentives Program](#).

Tackling Tricky Soil

More recently, the soil in the corn field where the Andelins host their annual Halloween corn maze just wasn't cooperating. With each passing year, they noticed that the soil was becoming harder and more difficult to till.

They teamed up with NRCS once again to test a cover crop mix to tackle their tricky soil challenges.



Jessica connected the Andelins with State Soil Scientist James Komar to explore incorporating cover crops as a solution to their troublesome soil. James took samples and did some soil health tests.

“We looked at the farm as a whole package,” said James. “Not only working with Cameron on those immediate needs, such as irrigation, but also taking a look at his soil and being able to respond to some of his observations—concerns about the workability of the soil, the salt spots, the lower production than he preferred. Those issues lend themselves to deeper digging and assessment of what’s really happening.”

Cover Crop Jackpot

“My aim was to figure out, operationally, how we can integrate cover into his corn field,” said James. “We increased the diversity of plants, ensured residue cover on the soil, and that we’re not disturbing the soil too much.”

The Andelins planted a five-way mix of clover, hairy vetch, tillage radish, wheat, and rye and plan to incorporate a no-till system.

The variety of plants used as cover crops are working well to break the soil up and increase its workability.

“I was a little doubtful at first because a lot of these seeds don’t always germinate,” said Cameron. “But as the temperatures warmed up, we started getting all the other cover crops coming in. I’m actually surprised we have as much as we do. I’m excited about it.”

More Information

USDA offers a variety of risk management, disaster assistance, loan, and conservation programs to help agricultural producers in the United States weather ups and downs in the market and recover from natural disasters as well as invest in improvements to their operations. [Learn about additional programs.](#)

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