Something in the water

Johnson’s resolve manganese problem, milk production improves

By Cassie Olson

OSSEO, Wis. - The variables that can impact a herd's health and production are seemingly endless. Despite every best effort to do what is right, one of these countless variables is bound to pose a challenge for even the best of farmers at some point in time. When their herd's health and milk production reached its lowest for Greg and Eileen Johnson, they decided to take a closer look.

"We had always had rusty water. Our plumber had recommended we drill a new well in hopes that a move would result in better water quality," Greg said. "The thing was, it didn't get better - it got worse."

Nearly a decade after they began searching for answers, Greg and Eileen have not only improved their water, but the overall health and production of their herd on their farm near Osseo, Wis. Their challenge began 10 years ago when the Johnsons first dug the new well. The well was drilled as a result of rusty water they had been experiencing since they purchased the farm in 1982. After the well was drilled, it was only a matter of time before they began to see the herd's overall success decline.

"No matter what we did, we couldn't get the production up," Greg said. "We had cows dying unexplainably - six or seven unexpectedly in a year. Nothing we were doing was making it better." Eileen agreed that the light at the end of the tunnel seemed to be nowhere in sight.

"We had the feed tested and that was fantastic," Eileen said. "It was like they were eating better than we were." Greg took notice that the cows were not drinking water like they should have been. When a vet said they were having difficulty administering shots because the cows were severely dehydrated, the Johnsons realized the answer had to be something in the water.

"We did a simple water test and found out the water was high in iron and from there, decided to do a more thorough water test through Dairyland Labs," Greg said. "The results showed we were not only high in iron but had an extreme level of manganese in the water and a low pH, as well."

According to University of Minnesota Extension, manganese and iron have both shown to decrease palatability and therefore intake of water in dairy cattle. Knowing these levels were unacceptable on their farm, the Johnsons began to share their case with a variety of companies in hopes of solving the problem.

"We took our test results to booths at Farm Progress Days and the Eau Claire Farm Show for three years while we searched for answers. Nobody could believe how bad our water quality really was," Eileen said.

Four years ago, the Johnsons met a representative from a water business in Eau Claire, Wis. After reading through the test results and not believing how bad their farm’s case was, representatives of the company decided to conduct a test of their own to determine what the best approach would be.

"They didn't think the test was accurate," Greg said. "When their tests came back with similar answers, I remember them saying, "This is going to be a tough one."

In hopes of finding a solution, the Johnsons signed a two-year lease on eight water conditioning tanks to filtrate the water. The tanks do a variety of tasks including salt regeneration, dispensing caustic to raise pH and killing bacteria through the use of bleach and chlorine. The lease ensured the Johnsons would not be held to a financial burden if the tanks did not provide the solution they needed.

"That way, if something wasn't working, we could try something different without losing money," Greg said. "But they got it right the first time. [The company] reps still come out every month to sample our water and make sure things are running properly. The system will have been in for four years at the beginning of this May."

The system did more than just improve the quality of water. In just 12 hours after the tanks were installed, the Johnsons saw a six-pound per cow increase in production. Almost immediately, Greg said he saw his rolling herd average grow by 2,000 pounds.

"It saved the farm," Greg said. "As I was beginning to approach retirement, I couldn't imagine selling the farm in good conscience to someone with the water problems we were facing."

The farm's progress allowed Greg to start taking the steps to do just that. Two years ago, Greg began renting his farm and land to his neighbor, Brad Goplin. Today, Greg works for Brad part-time milking 30 cows in his farm's tiestall barn. Greg said finding a solution for the farm's water problem was the reason he was able to provide this opportunity for a younger generation.

"It might be too late for us, but we knew we could get the herd's production up for Brad so at least he had a chance to get established. That became our basis: we wanted to help someone young succeed in farming," Greg said.

Greg urges farmers, even those who are not facing struggles, to take a hard look at their water quality. He recommends regularly testing well water and finding solutions when necessary to change the fate of a farm.

"We wouldn't have survived had we not found the problem," Greg said. "These were the cards we were dealt and we had to find a way to deal with it."