

# Coming Full Circle

Randy and Jolene Mosel's love of country life meshes perfectly with their fascination with new technology.

**Mo-Day Dairy** is located at the end of a quiet country road outside Neligh, Nebraska – population 1,500. Not much traffic ventures out to this area where acres and acres of bright green alfalfa hug the perimeter of the 40-cow dairy. At night, when the sky is clear, the dairy's owner, Randy Mosel, can look up at the stars and see satellites glide across the sky.

This convergence of nature and technology is the perfect metaphor for Randy's life – a life that has allowed this Dairy Farmers of America, Inc. member to mix his love for country living with his passion for computers.

Randy grew up on this farm, which was purchased by his grandfather in the late 1940s. His father, Gene Mosel, a former Mid-America Dairymen Board member, took over in 1965 when the farm's assets included nine cows and a tractor.

Randy's wife, Jolene, lived just eight miles from the Mosels' farm. She and Randy met through 4-H, went to high school together and were college sweethearts. After college, they married and Jolene went into nursing and Randy became a computer programmer.

## BACK TO THE FARM

The Mosels were happy with the careers they'd chosen, but when Randy's brother, Rick, was killed in a car accident in 1986, they knew they needed to come back to help Gene on the family farm.

With a double-three milking parlor, Gene and Randy were spending eight hours a day milking 90 cows, so they decided to upgrade their parlor. They first conferred with fellow dairyman Keith Bohlander, who was then a salesman for Nebraska Dairy Systems but today serves as Area manager for DFA's Central Area. They also took some farm tours.

Randy and his father decided to build a double-eight parlor. They also grew their beef herd to 70 stock cows.

Ten years later, Gene was killed in a farming accident, and Randy and Jolene decided it was time to take their agricultural careers more seriously.

Randy made the decision to downsize the operation so he wouldn't have to rely on outside help and focus on his two big interests – cows and alfalfa. He explains that dairying fascinates him because no two days are the same, and growing alfalfa allows him to experiment seeking better ways to raise feed for their herd. Today, in addition to milking 40 cows, Randy farms 400 acres – 170

acres of alfalfa, 90 acres of cash crops, with the rest in corn for feed and heating their home.

## HIS LABORATORY

DFA Central Area Field Representative Ann Woeppel says that one of the first things that caught her attention about the Mosel's operation is that Randy uses calcium, phosphorus and sugar to fertilize his alfalfa.

Randy explains that he has high phosphorus in his soil from years of spreading manure on the fields, and he knew he had to reduce it to get better yields. He started working with his cousin, Mark Mosel, who sells the Genesis Soil Rite (GSR) Calcium product from Soil Works LLC in Bancroft, South Dakota.

"He came to me a year ago and said, 'I got something I want you to try,'" Randy says.

Calcium is sprayed onto the fields before the first cutting. The calcium bonds to the salt and phosphorus and takes it down to the root zone, making it available to the alfalfa plant, which is a high user of phosphorus.

"Mark also told me I wasn't going to have to worry about alfalfa weevils because of the calcium," Randy says. "The weevils don't like sugar. And the calcium and phosphorus create sugar in the plant. We added sugar to this mixture to really get everything working, and then fed the plants microbial life, followed by organic fish fertilizer to get the microbial life going.

"It's just one big circle once you get the microbial life working," he adds. "It breaks down the phosphorus."

Last year during the fourth cutting of alfalfa, Randy was able to get 2 ¼ tons of alfalfa per acre: normally during the fourth cutting he would have a yield of three-fourths of a ton.

His neighbors, who helped Randy bring in the crop after he shattered his left leg in an accident, were amazed at the output. "Someone asked me, 'Where did you get all this hay?'" Randy laughs.

"Our goal is to get three tons per cutting and four cuttings a season," he adds. "We usually get five cuttings, but the coldness this year might not allow that to happen."

Randy points to two distinctive alfalfa plants from different parts of the field to show the difference between the plants sprayed with calcium and those that didn't get calcium.





The alfalfa leaf that was sprayed with calcium is the size of a quarter – almost double the size of the other leaf. He pulls up the plant to show the number of nodules on the roots. He estimates it will take at least three years to get the plants to their maximum output.

“Our end goal is to not use commercial fertilizer, but our goal this year is 12 tons of alfalfa per acre,” Randy says.

### THE DIRECTION OF FARMING

It was while Randy was recuperating from his accident at home in July 2007 that he had time to surf the Internet to research the newest farm technology.

What caught his eye was an Ag Leader-EZ Guide 500 GPS system, the AgGPS EZ-Steer® assisted steering system with T2™ terrain compensation technology and the AgGPS EZ-Boom™ 2010 automated boom switching and spray rate controller. He and his son, Dane, installed the system on their 8670 A Genesis New Holland, and the tractor can now drive itself, except for making turns. Spraying is more accurate and eliminates overlapping.

The system works, as long as they have satellite coverage. Randy is considering using the GPS system for planting.

Not only does the new technology keep the spray pressure constant and drive the tractor straight, it decreases fatigue because the driver doesn't have to fight the tractor 12 to 14 hours a day.

Randy expects the new system will take about three years before it pays for itself in proper product application, spraying accuracy and eliminating overlapping, which wastes fuel, fertilizer and time. Besides using the Internet, Randy obtains information from fellow producers. He values the time he spent on the Central Area Council from 2002 to 2003 and his time in the Young Cooperator's program from 1992 to 1993. Randy says those experiences opened his eyes to different points of view.

“It was neat to get to exchange ideas,” Randy says. “I learned at least one thing each meeting. Lots of us have the same problems. By talking, we can come up with solutions.”

### BACK TO HEALTH

Solutions are exactly what Randy was searching for a year ago when vomitoxin swept through his part of Nebraska after drought affected the corn. The toxin infected his herd, reducing his cow numbers by 15 and causing seven of his cows to abort. According to Purdue University in Indiana, vomitoxin is a toxin that can be produced by the scab-causing fungus that triggers poor weight gain in livestock.

It took a lot of research, but Randy discovered that putting one-tenth of a pound of activated charcoal in the feed for each cow daily worked best.

Today, this Gold Standard Dairy is doing fine. The cows are healthy, and Ann says that Randy's milk is high quality and has a low somatic cell count.

“He's not afraid of doing new things,” Ann says. “You can see it in how he approaches the care of his cows and fighting the vomitoxin.”



### THE WAVE OF THE FUTURE

Randy plans to keep dairying for at least three to five years, depending on whether his children are interested in carrying on the family business. He says he may eventually focus entirely on growing alfalfa.

Their son Dane, 21, a senior at the University of Nebraska, is majoring in mechanized systems management, and has shown some interest in continuing the family business. Miranda, 19, is a freshman at Midland College in Fremont, Nebraska, while Chandra, 17, and Ethan, 14, are students at Neligh-Oakdale Junior-Senior High.

Meanwhile, Randy and Jolene are building a three-story concrete house from the ground up, which they heat with corn in a corn furnace. Jolene, who works as a nurse three days a week and part time at a funeral home, is the construction manager and has made many of the important decisions concerning the house. Her oversight will ensure that it will be handicap accessible for the future as they age.

The new home has been a three-and-a-half-year undertaking – a project that shows as much innovation as their dairy and crop operations.

“This is my lab out here,” Randy says, pointing to his land, cows and house. “I'm always experimenting.”

“Everything comes in a circle,” he adds. “Everything I do comes together. I go through all the steps – it's got to flow logically. I think it comes from my computer programming background.”

