Creative Solutions Overcome Challenges Of Large Dairy Farm



Becca and Paul are the oldest two cousins who help out on the Mason farm by feeding the calves. Their fathers, Steve and Alan, feel the job helps them learn responsibility and money sense.

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NOTTINGHAM (Chester Co.)
— As farms grow in size, raising families and teaching children the farming work ethic becomes more and more difficult. Employees with specific responsibilities often eliminate opportunities for children to help out the way they can on smaller farms.

Steve and Alan Mason, along with their father Robert, are developing work projects on the farm to help their children learn the importance of hard work and being responsible.

Steve and his wife Nancy have four children, Becca (13), Joanna (9), Ben (7), and Sam (5). Alan and his wife Pam have two children, Paul (9) and Julie (6).

The Masons farm 700 acres and own 400 acres in Chester County. They milk 350 registered Holsteins.

Steve manages the milking help and health aspects of the herd, along with the planting, spraying, and cropping schedules. Alan handles feeding the cows and harvesting the crops. He also works closely with the nutritionist to formulate the rations. Robert takes care of breeding, general maintenance on the farm, and is part of the management team.

Both Pam and Nancy, whose full-time jobs are raising their children, help out on the farm when they can. Robert's wife, Mary Louise, has been the book-keeper on the farm, but she is now passing down that responsibility to Pam.

Robert and his brother, who has now passed away, began farming more than 50 years ago.

When Steve and Alan graduated from college, the four began the integration process so that Steve and Alan could be a part of the business.

"We started the integration process and estate planning right away because it can be extremely difficult in this area with such high land values," said Steve. "The objective was not to cash in on our assets, but enable the next generation to continue in farming."

The Masons' desire to continue in farming follows through to both Steve and Alan wanting to teach their children about farming and the responsibilities that go along with it.

"Something we struggle with is how we incorporate our children into the business so they learn responsibility and money sense at a young age," said Steve. "As a farm gets bigger and you hire more employees, it gets harder to have children involved."

One way the Masons have enabled their children to help on the farm is by making the two oldest cousins responsible for feeding the calves. Robert's brother was taking care of the calves until he passed away. Suddenly there was a job to do that nobody was assigned. Robert volunteered to manage the calves if he had a couple of kids he could train. So Steve and Alan volunteered Becca and Paul to feed the calves.

"We made it into a position of responsibility," said Steve. "Through working with the calves, they are learning about money. We're teaching them that they give so much to God, put so much in their checking account, and have so much left to spend."

The kids also are learning a strong work ethic and have to ask their grandfather's permission for time off from their job. "He's always willing to give them a day off when they need one, especially because they're his grandchildren," said Steve.

Although the other children are still too young for any major responsibilities on the farm, Steve has set up a single hutch with a couple of small, weaned calves for the kids to take care of.

"I pay them so much for each calf that leaves the hutch," said Steve. "If a calf dies, we find out why it died. Death can be very traumatic for young children, and it helps them learn responsibility."

According to Steve, it is hard to measure the success of his calf hutch project. "Sometimes they want to do it, and sometimes they don't."

Still, the kids are learning at a young age about work and earning money. The Masons have also considered other projects to help the kids get involved in farming.

"We thought about finding an interest that each child has and helping them pursue it," said Steve. "For instance, if one child wants to grow pumpkins or dried flowers, then we could give them a plot of land, help them get started, and they would be responsible for taking care of the plot, harvesting the crop, and selling it. Another child might want to raise pigs, so we give them the space and resources to do that — but it would be their responsibility."

Steve, Alan, and Robert work

closely together on their dairy farm. They also work closely with their employees. They look for quality employees when they do their hiring.

"Good help is part of the business," said Steve. "You have to hire quality people, or what you're doing is quickly lost."

The Masons use the team approach for getting work done. "Nobody can say they're any better than anyone else," said Steve. "We all work together."

On the Masons' 400 acres of owned land, 180 to 200 acres are planted in corn silage, while another 125 acres are rotated in forage wheat and forage soybeans. The forage soybean crop is a variety that the USDA has been developing for the past few years.

"This year is the guinea pig year for the forage soybeans," said Steve. "We are replacing our alfalfa acres with the new rotation. We plant corn silage, take it off in the fall, plant wheat, harvest it in the spring, and plant the forage beans to be harvested in the fall."

The Masons will use this first year to determine how well the new rotation works and whether or not the acres are balanced.

"We double crop extensively on our farm because it helps out our nutrient management plan and maximizes our land base," said Steve. "We make sure we can raise all of our forages on the land we own."

Living in prime development land, the Masons are never sure from one year to the next how many acres they will have. So they don't grow any forage on the non-owned farmland. Instead they use it to raise soybeans and grain corn. The corn is sold as a cash crop, and the soybeans are roasted and used in the ration.

"You're always waiting for the other shoe to fall when you're farming on 300 acres of prime development area," said Steve. "You can get concentrates anywhere. But you must figure out creative solutions for growing forages."

With 400 acres of owned land and 350 milking cows, the Masons also have developed a comprehensive nutrient management plan.

"We were already accounting for manure through our yearly crop reports," said Steve. "The nutrient management plan just made everything legal."

Growing more forages and double cropping enabled the Masons to use more nutrients on their farm. "We spread manure before we plant the wheat in the fall and after the wheat comes off in the spring."

"What farmers have to realize is that nutrient management is the law and our responsibility," said Steve. "As we get larger, we can't loose sight of the environment or water quality in order to chase economic efficiency. We need to make sure we're being proactive and avoiding any problems before they happen."

Whether it's creating work projects for their kids, developing an unusual rotation of forages, or finding ways to properly utilize nutrients on their farm, the Masons find creative solutions to every challenge they face on their dairy farm.



Creative solutions abound at the Masons' dairy operation in Nottingham. Whether it's coming with ways to teach their children good work ethic, growing enough forage for 350 cows on 400 acres, or double cropping to maximize nutrient requirements of ground, the Masons use innovation to come up with solutions.

Floros To Head Penn State Food Science Department

UNIVERSITY PARK (Centre Co.) — John Floros, professor of food process engineering and packaging at Purdue University, has been appointed head of the department of food science in Penn State's College of Agricultural Sciences, effective June 28.

"Along with his superb research record, John brings to this position excellent preparation and experience in curriculum development and enhancement, and strong leadership skills to continue to move our food science programs to higher levels, said Robert Steele, dean of the college. "He is a great addition to our college's leadership team."

Floros has made substantial contributions in the application

of chemical engineering, applied mathematics and industrial statistics to understand the many phenomena that drive food process engineering and packaging systems. His work has generated significant innovations in efficient food processing and packaging systems, while improving the value, quality, safety and shelf life of food products.

His accomplishments include developing effective peeling processes for fruits and vegetables, optimizing a calcification process for diced tomatoes and establishing new, environmentally friendly techniques to commercially ferment vegetables using low-salt brines. He also designed "active" packaging films with antimicrobial properties that improve food

safety and extend the shelf life of some packaged foods.

Floros has been elected to the executive committee of the Institute of Food Technologists (IFT), and has chaired several national and regional IFT committees and divisions. He was awarded an honorary research visiting professorship in the department of biotechnology of Denmark's Technical University. He also has assisted in developing a graduate curriculum and program for the department of food science and technology of Aristotelian University in Thessaloniki, Greece, and has been an external reviewer for the department of applied biology and chemical technology at the Technical University of Hong Kong.

A native of Greece, Floros received his bachelor's and master's degrees in food science and technology from the Agricultural University of Athens, Greece, and his doctorate in food science and technology from the University of Georgia in 1988. Beginning as a technician and production supervisor at a fruit processing plant in Andravida, Greece, he advanced to plant manager.

Later, he served as a research

Later, he served as a research assistant first at the University of Athens, then at the University of Georgia, before coming to Purdue University, where he rose to the rank of full professor.

He is a member of the American Society of Agricultural Engineers, the American Society for

Quality Control and the Institute of Food Technologists. He also belongs to Phi Tau Sigma, Sigma Xi and the Society of Plastic Engineers. Floros has published more than 36 refereed articles, 19 book chapters, 12 other publications and 70 research abstracts. He has presented more than 55 invited lectures and serves on the editorial boards of the Journal of Food Quality and the trade publication, Food, Cosmetics and Drug Packaging.

Floros' wife, Patricia, has a master's degree in food science from the University of Georgia and worked in the beverage development division of Lipton's. They have two sons: Dimitri, 9, and Nikolas, 7.