

## Innovation Helps Keep Family Dairy Competitive

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constantly.

In 1994 corn in the corn silage was too hard and passing through the herd undigested. A simple device installed on the silo unloader helped to crack most of the corn kernels, allowing the rumen bacteria to utilize the corn's carbohydrates more effectively.

The device was made and welded into place by Tom, who also discovered that increasing fan speed made the system work well.

Another aspect of the farm's uniqueness is a mile of permanent fencing made by Krall. He used 2½-inch pipe purchased inexpensively from Cleaver Brooks Inc.-Lebanon Plant (a maker of industrial boilers) before it closed operations.

With help, Tom erected the fence with 8-foot wooden posts, sunk 4-feet deep, spaced 8 feet apart.

The sturdiness of the fence gives the farm a little more of a "park" finish. Shirley said that some of the youth from innercities who have visited the farm have referred to the farm as a park.

In addition to the fence's attractive appearance, Tom said that since it was installed seven years ago, he has not had any cattle break out, or any problems with keeping the herd separated.

On the approach to the farm, a fenced-in pastured slope going up to the back of the cow and heifer barns contains a llama, some pygmy goats, and a sheep.

Landscaping also enhances the aesthetics of the farm — flower and ornamentals occupy a short, rock-walled bed on the slope between the farm lane and the old bank barn.

The lower bank barn is used for a holding area for the 38-year-old parlor, which has been remodeled and functions well. And the bank barn also holds four maternity pens.

The children have a play area behind the house. The lawn is also landscaped and well-kept.

A feeling of satisfaction comes from being in a beautiful place, especially when most of life's events happen there. But the place is regularly made open to the public — touring groups from other counties, states, or nations, as well as groups from elementary schools.

They said they are grateful for the opportunities they have and sharing knowledge is part of benefiting from it. Also, they learn from it.

The Kralls focus is upon selling milk, and strive to get a good return on their farm investments.

They don't sell bulls to artificial insemination studs, or market breeding stock or embryos.

Since they can't do much more to affect the price of milk than open their farm to the public for education, voice their opinions on public policy, and support milk promotions through the mandatory assessment, they concentrate on reducing their operating costs and making good milk.

Tom has also come up with a feeding innovation, that may result in a patent.

Using a device he invented, Tom can separate his silage into two groups — one group high in grains and energy, the other providing good feed for heifers.

The theory of using it is to be

able to chop more acres of corn in September for silage and then double crop that acreage with rye, or barley, instead of letting the corn stay in the field and shelling it.

The test value of the finer particulate is comparable to a rough ear corn feed called, "snaplage." Snaplage includes ear corn and some husk, but not stalk.

According to Tom, the reasoning behind his invention was this: "Corn silage is a mixture of shelled corn and stalk or grass.

"Our theory is to separate the two after it has been chopped, rolled, applied with anhydrous ammonia, and fermented, thus maximizing quality and minimizing losses of corn plant nutrients.

"This would possibly allow us to chop more acres of corn and to plant more double crop acres; produce a better, less expensive heifer feed; produce more milk from the more soluble starch from the separated material; and have more efficient use of equipment."

On top of this, Krall said there are other considerations — parameters of an acceptable farm-practical concept.

He said that if a separator is developed and installed it must make a consistent feed, be simple to operate, require as little investment as possible, and must not slow up feeding.

He said that separating has allowed him to cut down on shell corn or barley use by 20 to 25 percent.

However, last year he went against tradition, and with the approval of nutritionist-consultant Timothy Kissling, he fed barley as his main grain source for 11 months.

Currently, he feeds five pounds of the silage fines, on a dry matter basis, per cow, per day.

The Krall's herd currently averages 25,003 pounds of milk, 847 pounds of fat and 826 pounds of protein.

As far as experimenting, Krall doesn't jump into a project without thinking it through. And then it must meet a test of what it can or cannot do, before it can be claimed a success.

Some people don't do this, instead taking only the basics of a concept and concluding, "It must work!"

While success can result from such raw adventurism, it doesn't normally. Mainly because such off-the-cuff projects don't have built-in reduced risk or forethought in determining what areas are critical, and where and what possible minor adjustments can be made to make the project work to its full potential.

The mental and drawing board work Krall does, along with assessing materials and tools and then envisioning the actual project operation, allows him to "see" many potential problems that become otherwise obvious once work is underway.

"It's good to have brakes and a throttle," he said of how he and Shirley approach most and all major farm projects. "I not only have to convince myself, but Shirley too."

In the end, with a project that has been well thought out, but still doesn't achieve the desired goal, Krall said, "Even if it doesn't work, you learn through it."

Tom said he didn't really do well in school, and it was a fifth-grade teacher at the South Lebanon Elementary School who brought



Inside his 38-year-old milking parlor, Tom Krall walks past his breeding cycle board while members of a group of animal specialists from Spain peer in through the windows.

out his self-confidence to think for himself. He credited her with helping bring out his creative abilities at the same time. "She taught me there is more than one way to look at things," he said.

Tom chairs the research committee of his Young Farmers chapter. Most projects he's involved

with are done on the farm.

"In general, most farmers are innovative. What works on one (farm) doesn't necessarily work on another," he said.

"You have a problem, think about it until you figure it out." Krall said that he couldn't see

farming any other way.

"The projects help keep our operation fresh, and maybe even give us a slight edge," Tom said. "But there's no doubt about it, it's a day-to-day commitment by the family team, including the use of consultants, that makes a difference."

## Just Another Day On The Farm

SHIRLEY KRALL

REX MONT (Lebanon Co.) — Just another day on the farm.

Those words are never spoken on most farm homesteads. It's never just another day.

There is always a new adventure — a new calf, a new field to plow, a new breakdown, a new challenge.

When you have children, there is even more truth to that statement.

Greetings from the Krall Farm.

We milk 90 cows in a milking parlor. We have that many replacement heifers, and a Llama, pygmy goats, one sheep, two dogs and numerous cats add a little flavor on the farm.

It puts me in awe to see the percentage of unemployment in our country.

A farmer has so many job descriptions, it would surprise himself to write them all down. Tom is the father, husband and head of the home. He is also the tractor driver, mixes feed for the animals, is a welder, milker, repairman, and our visionary in the family.

I am the wife, mother, second in command, and also milk, breed cows, feed calves, do the book work, and keep everything presentable.

Joel and Travis are 13- and 12-years-old and have come up the ranks very nicely.

Joel has mastered the feed cart and now can do the feeding. He also scrapes manure after the cows go to milk. He is learning to drive tractor and make practical decisions.

Travis too is learning how to operate the skid loader and does a wonderful job mowing the lawn and feeding heifers.

Joel and Travis also do a fantastic job filling in as babysitter for their two younger siblings; Marlin, 3, and Louise, 2.

June is dairy month and we would like to salute the farm families who are making milk.

There is some dismal outlook being written about the dairy industry, but we would like to focus on the positive.

Make no mistake, there are days that are not rosey. Extra breakdowns, a dead calf, husband and wife do not share the same outlook some days, but there are three things that keep me going:

- God is in charge. No matter what is happening, there is a reason for it, and we hope we will be better people after the situation.

- There will always be a need for milk. I can not see anywhere down the road, a society that does not need milk for cereal or babies, and that doesn't need milk for cheeses.

- Our farm children are getting an education that will never be

taught anywhere else. They have acquired the foundation needed to succeed in any occupation. They know honesty, integrity, hard work, working as a team, and decision making. They know prosperity, and most importantly, how to pinch a penny.

It is no wonder that people look at farm families and say it must be wonderful to raise your children on the farm.

I proudly nod, with a tear in my eye, in knowing that there are times I take this wonderful gift for granted.

Dairy farmers, you are special.

## Ag Progress Dates Announced

UNIVERSITY PARK (Centre Co.) — Planting crops by the no-till method has become an accepted soil conservation practice. But for commercial tomato growers, no-till is still a relatively new technique.

Tomato growers can compare no-till with other planting and growing methods by attending Penn State's Ag Progress Days, August 13-15.

A new tomato planting and yield demonstration heads the list of production-related attractions at this year's event, said Ag Progress Days manager Robert Oberheim.

"Growers will be able to see and evaluate a tomato crop planted in late May," Oberheim said. "We'll have no-till and conventional plots, with and without trickle irrigation, as well as plots where the tomatoes were planted through black plastic mulch and irrigated by the trickle method. This will enable growers to compare yields from five different sets of growing conditions."

A no-till planter will also be demonstrated each day of the event. Visitors will see the machine in action planting tomatoes and a cole crop such as cabbage or cauliflower.

A new spring wheat combine harvesting demonstration also is

planned. Oberheim said other popular field demonstrations will be back, including hay mowing, baling, round bale handling, and composting.

Other exhibits, tours, and workshops will highlight the latest research and information on crops and soils, dairy and livestock production, integrated pest management, conservation practices, and woodlot management. More than 300 commercial and noncommercial exhibitors will be on hand to display the newest goods and services.

In addition, a variety of family-oriented attractions are planned, including storytelling, horse exhibitions, an insect zoo, live animal displays, antique and craft exhibits and SciQ, a TV-style game show.

Penn State's Ag Progress Days features more than 500 acres of educational and commercial exhibits, tours and machinery demonstrations. It is held at the Russell E. Larson Agricultural Research Center at Rocksprings, nine miles southwest of State College on Route 45. Hours are 9 a.m. to 5 p.m. Tuesday and Thursday, with extended hours of 9 a.m. to 8 p.m. on Wednesday. Admission and parking are free.

For more information, call (800) PSU-1010 toll-free from July 15 to August 15.