

Landhope Farms

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taglandin for those which didn't display heat.

Prostaglandin shortens the 21-day cycle down to about 14. He give two tries at a cow. "Every cow that hasn't been bred the first time, is bred the second time," he said.

But not all of those become pregnant.

The breeding program is especially important.

Sam keys in on days to first service, and calving interval.

Heat detection rate determines culling for reproduction.

"Too many get culled involuntarily. There are too many high producing cows being lost."

So he's been using the prostaglandin regime for about eight weeks. "The data is preliminary, but it is at 35 percent. That was promising," he said.

"With 400 cows, if you look at the probability, it will work. With the smaller herd, the variation is greater," Sam said.

The operation ships 22,000 pounds of milk a day, averaging 62 pounds per cow. "We'd like to do better and will do better," he said.

"Last month we had two cows produce over 140 pounds per day. There were six cows which produced more than 120 pounds a day and 23 cows produced more than 100 pounds a day."

Some of the other things Sam has been working on has been to reduce feed costs — which he has done significantly, he said, through cooperative buying with another large area dairy.

He also has a goal to increase average peak production a little more than 10 pounds.

As far reducing feed costs, with the help of researchers at New Bolton Center, they've been able to knock down the cost of minerals per cow from 21 cents to about 10 cents per day. "We bid out, pay a little more attention."

Sam said the 11 cent savings is important, especially at Landhope. "A 1 cent-per-day-per-cow savings on this farm is \$1,500 per year."

Most every freestall operation has something of a problem with the cattles feet becoming infected or sore.

Most of that has also been eliminated at Landhope through the strict application of a copper sulfate foot bath a couple of times a week, along with using a hoof trimmer regularly.

Other projects include installing a cooling system for the cattle.

With the record heat of late May

and early June, Shotzberger had installed a sprinkler system that he called, "an interim solution." It was a water hose with pinholes extended along the underside of the feedbunk roof.

The plan is to install a system of high powered fans and a sprinkler system so that the cows will get thoroughly wet. The fans promote evaporation, which draws heat from the animal.

For cow comfort, three of the four freestall facilities have cement beds, which are bedded up once a week. "We rake the stalls every time we chase the cows off for milking. It makes a difference."

Landhope also employs nine fulltime workers.

There are Jackie Hicks and Jane Melvin. Juan Ocamp helps with getting cows' heat check at 12:30 a.m., and then starts the milking shift at 1 a.m.

Ralph Roop does afternoon milking and afternoon feeding and anything else.

Brian Harrop, milks weekends and is general handyman and maintenance.

Dave Anderson has been hired for third-shift, three-times a day man.

Robert Roop is the fieldman. He takes care of the crops, and advises Sam on needs and conditions.

Pattie Yarnall, has the primary responsibility of taking care of calves.

The calves are kept up to two months in individual hutches and another two more months in super hutches with a couple other calves.

She also keeps records on all the calves, when they need moved, takes care.

In addition to other responsibilities, she helps with field work.

The milking is done by two men. One man in the parlor, one man readies cattles, and chases them up to be ready.

Landhope has a two-stage fencing system so that the first group is hustled into an area next to the parlor and a hinged gate closes them in. Meanwhile a second group is brought up to the gate and they are also gated in.

As the last of the first group leaves the parlor, they are guided back to their area and the second group's front gate is opened to give them access to the parlor. Once they are in place, and the first group back in their area, the third group is brought into the second holding area.

Also on the edge of farming changes, the place already uses the manure for almost all of its nitrogen needs.



The open walled free stall facility at Landhope Farms provides cow comfort along with efficiency.

Sam's been involved with dairying for a long time. He grew up on and around dairy farms. His uncle George had a dairy farm and his father, William Shotzberger, worked for the DuPont Estate. DuPont had a strong interest in dairy cattle and produced the famous Ivanhoe bull. His rolling herd average was in the 17,000 back in the 1960s.

The DuPont herd had been dispersed by the time Sam was old enough to work. He went to University of Delaware and got an undergraduate degree in dairy science.

For a while he tried a partnership dairy with his brother, but that didn't work out.

Later, Sam worked for another large Chester County dairy, the Moore Farms. Even today the contacts made there continue. In fact, Landhope Farms and the Moore farms have started combining purchase order for feed and other materials in order to take advantage of bulk discounts. Sam knows Walter Moore, a Penn State grad, and the two get along well.

Sam also has an indepth familiarity with nearby New Bolton Center. He worked with nutrition, protein degradability and its impact on milk production.

While at New Bolton, Sam decided he needed to advance.

"I was all set to go to vet school, but I decided on business school," he said.

He said the advice to do so came from his mentors at New Bolton.

He said the reason they advised him to go into business is because more work needs to be done on the financial practicality of some of the technology being provided.

"It's not a question of can you do it, it's a question of 'Does it pay?'" Sam said.



A copper sulfate foot bath helps keep foot infections to a minimum at Landhope Farms.

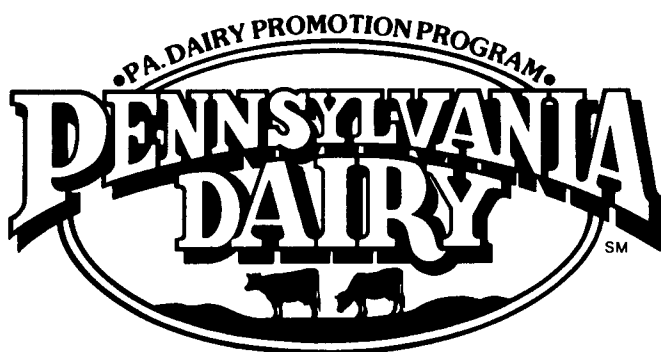
He got a masters degree in business and spent a couple of years working as a product manager in the marketing division for American Cyanamid at company headquarters in Princeton, New Jersey.

American Cyanamid is one of several companies with abilities to

commercially produce Bovine Somatotropin (BST).

As a product manager, Sam said BST "is the safest thing I've seen."

"It's very safe, and works well. It would increase production as much as going to 3 times a day."



A large manure storage lagoon stores the waste from the 400 milking cows and provides almost all the nitrogen needs for the 600 acres of crops.