



They share their best buys

We asked these four Round Table participants where they get the most bang for their buck. Labor-saving devices, cow health improvers, and keeping people happy save . . . and make these dairy producers money.

WHAT makes your dairy go? Perhaps it's something you never sat down and thought about. Every dairy has integral parts and inputs that make it successful.

We asked these four high-producing herds which products and services work best for them. Here is what they said.

List products or services that cost under \$100.

Embry: We use a fly control service monthly but also use CyLence fly bait in between trips.

All cows are A.I. bred on the farm. We use some young sire semen at \$3 and some at \$14 to \$16, but any semen is more profitable and safer than using natural-service bulls.

Inflations are changed exactly on schedule to try and obtain the quality bonus our co-op pays.

Instead of mixing and stirring to make a paste for wood blocks, we use Bovi-Bond. It's not as messy and is much faster.

Colored duct tape is used to keep the A.I. program on track. Each step in our synchronization program is represented by a different color. We wrap the tape around the tail below the vulva. This is important because sometimes a ghost allows cows to get mixed up between groups.

Hershberger: We try to purchase supplies under \$100 in bulk, taking advantage of special sales, quantity discounts, and discount warehouses. Examples are milking gloves, paper products, hand soaps and bleaches, *E. coli* calf vaccines (Bar-Guard-99), cases of dextrose, and calcium.

Lyndaker: DA toggle kits allow our herd staff

to toggle many of our LDAs at the time of diagnosis. This allows us to repair the DA in a timely fashion at very little cost without intrusive surgery.

We store our colostrum in 2-quart zip-lock bags. Colostrum stored in zip-lock bags freezes and thaws quickly, and there is no need to clean up.

We milk all treated cows in a separate facility a short walk away. Having an antibiotic like Naxcel with no milk withhold allows us to treat cows without the stress of a move.

Cows in our dairy herd are started on a pre-synch/ovsynch protocol. We have all second and greater lactation cows complete the program. First-calf heifers are bred off the second Prostaglandin shot if they show a heat.

Headlocks allow our herd staff to move, breed, vaccinate, vet check, and treat our heifers with minimal labor input.

Mashek: My cell phone enables me to be in contact with people while at work. Urgent calls and decisions that need to be made can be made in a timely manner no matter where I am. It makes running a business a lot more efficient.

I thought I was crazy for spending \$99 for a teat dipper, but, after testing a Thrifty Dipper for a few days, I realized the amount of teat dip that we were saving. It also puts a proper cover over the entire teat and helps keep the skin in excellent condition. In a year, we feel we will save between \$500 and \$700.

Orbeseal has eliminated almost 99 percent of our clinical mastitis problems.

I feel calf coats are needed for winter months in

the Midwest. The average cost of a coat is \$35. If you lose one calf, look at the number of coats you could purchase to save them. We usually use them for about one month on each calf during the winter months.

Quicken record keeping program allows my wife, Barb, to do the books on the computer. It is fast and easy to use. At the end of the year, it's a few clicks, and it's ready for our taxman.

What about items in the \$100 to \$500 category?

Embry: We drench all fresh cows. A Drench-Mate drench pump makes it fast and easy to do.

Electronic thermometers are used to take daily temperatures on all hospital and fresh cows to stop trouble early.

We run dry matter on silages every few days or after a rain with a Koster tester and adjust the ration automatically as it changes.

Our nutritionist, Barry Dye, is very prompt and attentive to the cows' needs and feed variability. He constantly checks the ration and feed samples to get good milk production and maintain cow health.

We added two water troughs to the milking parlor, one in front of each side of the rapid exit. The cows all stop and have a drink of water before they leave the parlor.

Hershberger: We take advantage of our vet's maximum quantity discounts by purchasing cases of Quartermaster. We also use generic products for timed breeding such as OvaCyst and Prostomate.

We purchase hydrated lime by the pallets for



Terry Embry and Family, Eatonton, Ga.

South and east of Atlanta is where you will find Sunrise Dairy, the home of Terry Embry. Terry owns the farm in partnership with his father, Roy, but handles all the day-to-day decisions for the 683-cow dairy and more than 1,200 acres of farmable cropland.

Cows are housed in two free stall barns with headlocks and milked in a double-10 herringbone parlor. Herd average is 21,000 M. Somatic cell count is under 400,000. The staff at Sunrise consists of 11 full-time employees, including herdsman Darin Brown.

Terry explains that they try to be very self-sufficient at the dairy and have built several items to save labor and improve cow care, including a hoof trimming table and a sand spreader.

Terry serves as a director of Southeast Milk Cooperative, the Georgia Milk Board, and the Farm Service Agency. He has a degree from Cal Poly and was named Southeast Milk's Outstanding Young Dairy Leader this year. He is holding Kate, and his wife, Jan, is holding Garric. Jackson and Emily stand in front of them.



Gayle and Dan Hershberger, Quarryville, Pa.

Located in the heart of Pennsylvania's famous Amish country is Milky Springs Dairy, owned and operated by Dan and Gayle Hershberger. The dairy is home to 370 milking Holsteins and boasts a herd average of 27,100 M, 1,026 F, and 814 P which is one of the highest in Lancaster County. Somatic cell count is just 200,000.

Cows are housed in a six-row free stall barn and milked in a double-10 parallel parlor.

The Hershbergers are part of a local buying group called Chesco. The more than 20 dairy farm mem-

bers pay an annual dues and can purchase dairy supplies such as vaccines, copper sulfate, and other items in bulk at a discount. Dan said he typically purchases supplies through the co-op when service needs are not an issue. He still buys A.I. semen and teat dips direct from the company to take advantage of their consulting services.

Dan and Gayle have three children who all help on the farm. Son Justin is one of four full-time employees who work on the dairy. Dan serves on the county extension and 4-H advisory boards.



Scott Lyndaker, Auburn, N.Y.

Scott Lyndaker is the chief operating officer at Oakwood Dairy which sits in Cayuga County, the center of New York's dairy industry. Scott oversees a staff of 18 full-time and four part-time employees. The 1,500-cow dairy is one of several businesses owned by Ted O'Hara and his son, Kelly. The farm has been in business since 1942.

Cows are housed in free stalls and milked in a double-22 parallel parlor. Herd average is 26,450 M, and somatic cell count is 138,000. All cows are bred A.I. Pregnancy rate is 26 percent.

Nutrient management has become a major priority of the farm, especially with the growth of several large herds near Auburn. The farm has taken steps to reduce odor by working with neighbors and separating manure solids. Future plans include injecting manure with a draghose system and the possibility of constructing an anaerobic digester.

The farm is recognized as one of the most progressive in New York and is a frequent stop for tour groups, as well as students from nearby Cornell University.



Tanner, Barb, Dennis, and Josh Mashek, Calmar, Iowa

A very familiar name to Brown Swiss breeders is Hilltop Acres Farm, the Mashek family. Dennis and Barb, along with children Josh, Tanner, and Kylie (not pictured) farm 470 acres in northeastern Iowa.

The 159-cow Brown Swiss milking herd is housed in a sand-bedded free stall barn. Herd average is 24,651 M, 1,066 F, 865 P, and somatic cell count is 160,000. Turnover rate is 33 percent, but about half of the cows that leave the herd are sold as replacements to other dairymen.

The team at Hilltop Acres also in-

cludes full-time employees Pat Wedo and Jennifer Medlang, as well as other part-time help from the local dairy school Northeastern Iowa Community College.

Embryo transfer work has helped Hilltop Acres become a household name in the breed. The Masheks have bred six number one A.I. bulls and have been recognized with several awards from the Brown Swiss Association, including the Outstanding Young Breeder Award in 2001. National Dairy Shrine awarded Dennis and Barb Progressive Dairy Producer honors in 2002.

daily spreading in the free stalls which, in our opinion, is advantageous on our somatic cell count.

We purchase Bovishield Gold modified-live vaccine in large quantities through our local purchasing co-op.

We have tried various teat dips and have found that the cheapest brand is not the most cost effective for us. We use premium teat dips from West Agro for maximum teat health and mastitis control.

Lyndaker: With the hot summer still fresh on my mind, we are grateful for tunnel ventilation. Our two milking free stall barns are set up with 20 fans each that we run for three to four months every summer.

Meetings are scheduled at our dairy several times each year for the purpose of veterinary consulting. We utilize our herd veterinarian, Attica Vet Clinic, as well as Pfizer and Alta Genetics specialists to evaluate our metabolic, vaccination, and reproductive protocols.

Both adult cattle and young stock in our free stall facilities are forced to use foot baths. The incidences of hairy heel wart and foot rot are less than 1 percent.

Calf jack and hip sling help cut down our stillborn and death losses. Each item allows one person to efficiently manipulate an animal in situations where timeliness and limitations in human strength are factors.

Our calves are placed in a Cover-All facility. We utilize stone with tile drainage as the base material. We then cover the stone with a polypropylene paper base with 3/8-inch holes drilled in a 9-inch pattern. Calves are bedded on the paper using shavings. Drainage is more than adequate, and cleanup is easy.

Mashek: We have a DTN unit in the barn office that enables us to check the weather, dairy futures, crop futures, and up-to-date agriculture reports that we want to see.

On our dairy, Barb, I, and employees do all of our own IV work. My vet, Larry Moore of Postville Vet Clinic, taught us not only how to IV all our own animals but also to understand drugs and how to properly use them. Having this knowledge has saved us thousands of dollars over the years, saving more animals by treating them immediately and not having to wait for a vet.

Ultrasound enables us to detect earlier pregnancies, multiple births, abortions, uterine infections, and any other repro problems that the animals may have. We can take better care of the cows that we know are having multibirths. Being able to detect open cows earlier helps us to get the cows cycling and bred again.

We test our soil every three years. This enables us to know the levels of N, P, K, and the pH level. We also test the liquid manure from our lagoon, so we know the levels of N, P, K that we are getting out of 1,000 gallons of liquid manure. By doing this, we have purchased no commercial fertilizer for the last five years. Our corn yields ran between 220 and 260 bushels per acre of corn this year with no added nitrogen or starter.

We use a foot bath at our afternoon milking. The cows walk through a rinse bath first and then the foot bath. We use 17 pounds of copper sulfate in the bath. We do this Monday through Friday. Having Brown Swiss, we see no hairy warts, and our abscesses are a handful a year.

What about the \$500 to \$1,000 category?

Embry: On the alleyway between the milking parlor and the free stall barn, we built a covered section 40 feet long with an eave hanging over the side shading the water troughs. The cows have ample room to drink without affecting cow flow.

We use formaldehyde on a daily basis in the foot baths. This is done continuously instead of cycling on and off because we feel that using it nonstop works better in controlling heel warts.

We just put in a predip foamer about six months ago that has drastically cut down on our predip usage, as well as given better coverage. We also implemented the Thrifty Dipper for post-dip. The two of these have cut our dip usage by about 25 percent.

Hershberger: On bids, we buy copper sulfate by the pallet for our foot bath treatment.

We work exclusively with Genex for maximum semen discounts and quality service.

Our dried pine shavings for free stall bedding is bought in bulk trailer loads for maximum discounts.

We bought a prepreg teat foamer from West Agro for dipping cows. It uses less product and gives better coverage than spraying.

Lyndaker: Dairy Comp 305 tracks production, pen changes, reproduction, disease, treatments, vaccinations, and so forth. All herd staff make entries in their areas of expertise. We have two computers using a wireless connection. This allows our staff access no matter where they are working on the farm.

Kane calf feeders are utilized for the feeding of grain in our calf facility. These self-feeders allow us to give calves access to clean and dry grain at all times. They require infrequent filling and reduce contamination by milk, water, and birds.

One of the best investments is our employee quarterly meeting. This time together gives everyone the opportunity to see the farm business from a broad perspective. The business provides lunch, and staff members are given incentive checks for meeting established goals within their departments.

With the shortage of Posilac over the past two years, our dairy has reevaluated our BST strategy. We now make "do not breed cows" our first priority and cows not checked pregnant at 130 days in milk the second highest priority. These

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cows respond with approximately 10 pounds of milk; longer, more profitable lactations; and are less overconditioned at dry-off.

Payroll service saves time and headaches.

Mashek: We currently flush between three and five head per month, marketing embryos and semen throughout the world. With extensive embryo work, we have brought our herd's genetics to one of the highest levels in the Brown Swiss breed. I have also been implanting all of my own embryos for the past two years.

In 2001, we started a web page for our business. After it was up and running, our first month had over 14,000 hits. We were totally shocked. Our web page enables people all over the world to know what is going on from month to month at Hilltop Acres.

We purchased a hydraulic feed blade for our skid loader. This enables everyone to push up feed six to seven times a day, including Tanner, our 11-year-old.

At Hilltop Acres, our employees are a tremendous asset to our business. We have summer picnics, Christmas parties, barbecues, and other employee perks. We treat our employees as we would want to be treated as an employee. One of our mottos is, "We work hard, and then we play hard."

It is difficult to put a dollar value on the use of custom operators. We have our corn planted and combined, our manure lagoon cleaned, and bunker silo filled with corn silage.

What about items between \$1,000 and \$10,000?

Embry: A homemade sand spreader tops the list. We took a stainless spreader body and turned it sideways, removed the spinners, and put it on a heavy-duty frame to put sand in the free stalls.

We built our own hoof trimming table and have it mounted very close to the exit alley under a shed, so we use it any time. All cows are done at dry-off, and lame cows are done on a daily basis.

Fans and sprinklers over the feed alley that operate on a thermostat have done more for heat stress than anything else we have tried.

Hershberger: Commodity purchasing and contracting such as cottonseed, citrus pellets, soybean meal, with trailerload deliveries.

We purchase our plastic wrap for baleage by the pallet to maximize savings.

The purchase of a tractor-mounted bedding spreader for free stalls has saved time and labor.

For maximum savings, we buy a truckload of Megalac, paying cash and using our barn as the warehouse for a six-month supply.

Lyndaker: Milk culturing is done by Quality Milk Production Services. If any samples are found to contain *Mycoplasma* or *Staph. aureus*, we send in the individual cow samples and cull the offending animal. This practice allows the herd to remain free of these two diseases and gives us a good handle on the types of mastitis that we are dealing with at any given time of year.

The calf department utilizes a Chevy S10 pickup truck with a flatbed body to feed milk and water to our calves in hutches and our Cover-All calf facility. We have two 110-gallon poly tanks with electric-operated gas pumps to dispense these fluids twice each day.

A hydraulic-tilt hoof trimming table allows our herd staff to trim lame cows as they are identified. We have our table located close to the parlor return alley and sort the cows needing to be trimmed.

Mashek: The Brown Swiss Advantage Program has been a great asset for not only me but my family and employees. It provides bull and cow information which we can use to help mate our cows and to keep improving our breed. The program also sets registration fees and enters our herd in award programs.

We work with an independent nutritionist, Gerry Gipp, with Nelson Dairy Consultants, who balances all of our rations from baby calves to mature cows. He comes monthly and takes samples to test moisture. He also walks through the milk cows and dry cows to body score them.

Our farm is set up with headlocks for our milk cows, dry cows, warm-up group, and heifers from 4 months on up. Having these, one person is capable of doing vaccinations, breeding, IV treatments, and herd health.

Anything over \$10,000?

Embry: The best thing we have bought within the past two years was a Case 321 loader which is a compact rubber-tired loader. It is large enough to load feed in the silo, commodity shed, and move manure. But it's also small enough to fit in the free stall barns when needed.

The next best thing is a Valley Center Pivot with Nelson 100 guns on top of it instead of sprinklers. We have a Houle chopper pump and Houle agitator in the lagoon. We are able to pump everything from manure to turtle shells through the pivot without problems. Our suction pipe pulls off the bottom of the lagoon.

The last one is a hospital barn we built. It is a 50- by 100-foot pole barn with a high roof, fans, and headlocks. It has a 6-inch sand base with 6 to 10 inches of wood shavings over the top. We just added 30-foot wings to both sides. One side

They rank their top five

Embry: Case 321 loader: It is perfect for loading feed and getting in the barns.

Tip dip foamer and Thrifty Dipper: Paid for itself in less than two months.

Hoof trimming table: Any cow that limps is checked immediately.

Thermostat controller: Nobody forgets to turn the sprinklers on or off.

Hospital barn: Reduced chance of antibiotic cows getting mixed up with herd.

Hershberger: Teat foamer: Helped save costs and lower somatic cell count.

Jay-Lor mixer wagon: Aids in baleage grinding for maximum herd health.

Commodity contracting: Trailerload purchasing, stabilizes market fluctuation.

Calf *E.coli* vaccine (Bar-Guard-99): Small preventive cost for aid in raising healthy calves.

Bedding spreader: Easy to use, labor and time-saving, and aids in cow comfort.

Lyndaker: Dairy Comp 305: With over 2,700 head, we make more than 52,000 entries each year.

Mixer wagon feed truck: Rations are delivered in a consistent, accurate, and timely fashion by this mixer every day of the year.

Naxcel: Saves us from moving cows when we don't have to.

Tunnel ventilation: Takes about 1 pound of milk per cow to pay for the electricity. We feel that we gain 5 and in extreme heat as many as 10.

DA toggle kit: Herd staff can be trained by a veterinarian to properly toggle a cow. This procedure requires 15 minutes, several people, and ropes to roll the animal onto her back.

Mashek: Family: Without them, I would not be where I am today.

Web page: A great marketing tool for Hilltop Acres genetics.

Embryo work: Improving genetics at a faster pace.

Soil sampling: Saving thousands of dollars by using liquid manure as fertilizer.

Commodity shed: Best buys of feeds by the semiloads.

is to be used for more hospital space, and the other side is a close-up and calving barn.

Hershberger: We purchased a Jay-Lor mixer five years ago. It is used heavily and requires minimum maintenance.

Grain banking of shelled corn for one year's needs limits market risk.

We recently purchased a pay loader through a dealership going out of business.

Lyndaker: Mack truck with Knight auger mixer and Feed Watch software is used to feed over 40,000 as-fed tons of TMR each year. We mix seven different diets and distribute them to 28 groups. Dairy Comp 305 and Feed Watch are linked so that pen counts will be updated during the night and TMR drops adjusted accordingly.

This year, we purchased a Fan manure separator. Manure solids come out of the separator at 30 percent dry matter. Twenty percent of the milking herd (the fresh group) is in deep-bedded stalls with solids. Forty percent of our cows are being bedded with solids on mattresses. Our SCC over the past year has averaged below 140,000.

We recently constructed a new 260-cow, four-row, drive-through free stall barn. The cows are on rubber flooring and have large, spacious stalls. One side of the barn is for first-lactation animals, while the other is used for mature cows.

Mashek: We currently have two Gehl skid steers. One is for feeding and the other for manure. These are the handiest machines ever invented. With hydrostatic control, it is very easy for employees and our children to operate.

In 2001, we built a five-bay commodity shed. It paid for itself faster than any other building that we built. We purchase all of our commodities by the semiload, enabling us to get the best cost for our product.

A TMR mixer helps improve production and herd health tremendously. We feel our cattle are getting a more balanced ration, live longer, and have higher lifetime production.

Finally, family is an area where you can't put a dollar value on. At Hilltop Acres, we stress a team effort, and this includes my family. Without the support of my wife and kids, I don't know if I would be doing what I am doing. When you love what you do, the hours don't count. What a great way of life when you can have your entire family at your side day after day.

What's on your wish list?

Embry: One thing we are looking into is a better way to reclaim the sand coming out of our stalls. Our sand costs have increased 35 percent in the last 12 months, so it won't take long to recoup this.

The next building project we have is to build a roof over our feeding area. We have gotten by over the years without a roof because of our rapid turnover of feed stored at the dairy, but it would eliminate any dry matter change in the premix.

Hershberger: In the next few years, it is our goal to enlarge our calving, box stalls, and close-up pens.

Lyndaker: A satellite manure lagoon would allow us to utilize drag hose manure application at distances away from the farm more efficiently while an anaerobic digester would minimize manure odor and maximize nutrient utilization.

Finally, a triplex mower conditioner to mow hay acres more efficiently and minimize in-windrow drying time would improve our business.

Mashek: Our list includes a fuel-efficient tractor for TMR mixer, a hay shed to keep better feed value and buy larger quantities at low costs, and a bedding pack fresh cow barn to improve cow comfort for stressed and fresh cows.

Looking down the road, more land for my two sons who love to farm (seventh generation). We want our business to grow and to continue the history of over 150 years of business. 