

Graze

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‘by graziers, for graziers’

From zero to \$300,000 in five years

Young couple shows there’s money in start-up grass dairy

By Larry Tranel

There is no money in dairying. Dairying is too much work. It takes too much capital to start dairying.

You can’t graze dairy cows profitably. You cannot outwinter dairy cattle and survive. You can’t crossbreed dairy cows. You can’t start dairying with high-priced land and cows.

You can’t be profitable with 15,000 pounds of milk per cow. One person cannot handle 80 cows. Profits of \$1,000 per crop acre or \$1,000 per cow for return to labor cannot be done. Earning \$30-\$50 per labor hour milking cows is impossible. Landlords are better off getting rid of the dairy cows and cash cropping the farm. You can’t earn a 20% return on assets from dairying. You need more than 80 cows or 80 acres to make it dairying. The naysayers go on and on.

Enough is enough!

There is money in dairying! All the negative statements above can be translated to realistic, positive statements, as all these things are being done on dairy farms.

And they can be accomplished by young, start-up farmers if they can find the right opportunity. By following some basic principles for production and labor efficiencies, a young dairy farm family can leverage the advantages offered by management-intensive grazing to make an excellent family living and rapidly accumulate business equity. (See article on page 10.)

Eric and Amanda Gaul, who are renting my farm in southwestern Wisconsin, are a shining example of this. In just five years, and without any off-farm income, Eric and Amanda have gone from virtually zero net worth to more than \$300,000 in net equity through astute use of the tools offered by grazing.

Many of the details of that farm and our progress to that point were included in the October 2005 edition of *Graze*. What follows is a brief review of those details, along with an update on the progress Eric and Amanda have made since then.

The Gauls and I began planning and signing contracts in the fall of 2002 for a 32-stall barn on 70 acres. Together we built a swing-10 milking parlor in a lean-to (just over 15 feet wide) off the stall barn at a total cost of \$12,000, plus a few thousand dollars more for used milkhous equipment. We replaced the old stanchions and a maternity area with sand-bedded freestalls. The alley floors were lowered to the depth of the barn cleaner gutters to allow skid-steer cleaning. With sweat equity and used stall dividers, the capacity of the old barn was increased by 50% at a cost of \$2,500, while labor demands in the barn were actually decreased despite the additional cows.

We added a fence-line feeder (about \$1,000) and a small manure pit. For more cattle housing, we added six “cow-tel” freestalls under another lean-to at a total cost of less than \$50 per stall. In the following three years, 33 more cow-tels were added in a new single-row, open-sided shed along a concrete cattle lane. The per-stall cost for this housing averaged less than \$200.

The property had been in grass, but was re-seeded to boost productivity. This is highly productive and well-drained land that is capable of handling more than a cow per acre with proper grazing management and moderate levels of supplemental feed.

All told, about \$35,000 was spent on facilities and pasture upgrades to

triple this farm’s capacity from the original 32 cows, with the Gauls paying about one-third the total along with half the labor to install the improvements. In doing so, we improved labor efficiencies enough to allow the Gauls to operate a 90-cow dairy with no more labor than they would have needed with the old 32-stall set-up.

In year one, Eric started out as a sharemilker earning 25% of the milk check in return for his labor. In years two and three, the Gauls took ownership of the cows on a note from a private lender. In 2003 they purchased 90 cows valued around \$1,200 apiece, along with \$15,000 in machinery. The value of the machinery line grew to \$48,000 by 2007. By 2007, Eric and Amanda held just \$35,000 in debt.

The Gauls and I had developed a projected budget, and that budget has been more than matched, according to analyses through my Dairy TRANS financial monitoring program.

Yes, there were some good to great milk prices during those four years: the Gauls averaged \$17.11 per

hundredweight for milk from crossbred dairy cows with a Jersey and Holstein base, shipping just over 15,000 pounds of milk per cow. About two-thirds of the herd is calved in the spring.

The average return to labor after an equity charge was taken out was \$84,277 over that period, ranging from \$55,577 in 2006 to \$134,080 in 2007. Not too bad for a young guy who didn’t go to college! While there are financial risks with this, where else can a young person earn that much?

Thanks to the grazing and crossbreeding, the culling rate has averaged under 20% per year, which earned the Gauls an annual average of \$24,150 in breeding livestock gains. The Gauls have about 31 hours of annual labor per cow thanks to the seasonal calving, the low-cost parlor, and the grazing and feeding systems. Purchasing feed rather than growing it also contributes to this low labor cost. Labor earnings per hour ranged from \$25.26 to \$44.69, and averaged \$34.99. Again, not bad!

Average milk production cost, with all labor and equity charges included, was \$12.97 per hundredweight over the four years. The gross income per hundredweight equivalent (including cattle sales and other non-milk income)



In this 2005 photo, landlord Larry Tranel and renters Amanda and Eric Gaul stand in front of “cow-tel” freestalls they built along the concrete lane leading to the paddocks. Such low-cost, yet labor-efficient innovations have been key to the Gauls’ tremendous financial progress since starting five years ago with no equity.

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Joel McNair

Sustainability more important than price premiums

Those of us concerned with alternative agriculture need to have a frank discussion about the sustainability of what we are doing.

This is important because, despite all the self-congratulation that takes place under the alternative umbrella, too much of what we are doing is no more sustainable than the methodology of conventional agriculture and, in some cases, even less so. In too many cases we are being sidetracked by efforts to extract premium prices from the marketplace at the expense of true sustainability. While there is certainly nothing wrong with getting a better price for what you produce, in some cases the extreme focus on this effort is undermining the very sustainability upon which most of these efforts were founded.

And the real danger here is that as economic conditions change — as the costs of essential commodities rise to levels not seen in this country in many, many years — a large share of alternative agriculture is setting itself up for a fall that will be at least as hard as any other economic sector. We graziers and organic types like to think that we are far better positioned than the conventional operators to deal with these upheavals, but that is certainly not always true. Allow me to explain.

Sustainability is outlined very well by the Holistic Management model. A sustainable farm/business/life is cost-competitive without subsidies. It is in harmony with nature, including the nature of human life and interactions. It is able to adjust to changing internal and external realities. Such an entity can weather the blows and survive into the next year and, if truly sustainable, into the next generation.

Many graziers I know intuitively understand these concepts, and put them into practice even if they've never heard of HM. This really should come naturally, as at its core grazing is all about ruminants utilizing free sunlight and (hopefully) free moisture with a minimum of artificial interference, thus providing a solid base for all of the good things that are possible when HM-oriented goals are being met.

Twenty years ago, this was enough for the grazing pioneers who viewed "low-input" as the path to success. The majority of these people, or at least the ones still in the business, have since decided that it was not all that simple, and that there was money to be made in adding some "artificial" elements — largely grain.

The truly holistic thinkers among them fully understand the tradeoffs they are making in adding layers of artificiality, but they are willing to accept such layers in return for the profits they are currently providing. And the futurists who see what is coming down the pike understand that they will need to shed a few of these layers to ensure survival (see Dan Vosberg's article on page 3).

Sustainability is thus going to involve a complicated set of maneuvers from today's realities to tomorrow's, and the maneuvering is going to be different on each farm. There is going to be a period in which the extreme costs faced by confinement livestock agriculture will create nice profits for "hybrid"

grazing-based farms along the lines of those featured in last month's issue. At some point, however, the percentages of any involvement in the conventional model will become so bad that all ruminant livestock agriculture will be mostly grass/forage fed by necessity. It is for this future that Nathan Weaver is preparing (see page 8).

The bellwether for this future, or the canary in the coal mine if you will, is currently on display within the New England organic dairy industry. The perils of the premium market are on full display there, serving as a warning for all of us who believe that we can outrun rising costs simply by extracting ever-higher prices from the marketplace without taking care of other aspects of sustainability.



You can judge for yourself the information offered by Bob Parsons, University of Vermont Extension associate professor, on page 19. The guts of the matter may lie in these words Parsons offers: "... for (the) average organic dairy farm to survive under today's feed and fuel prices, the base milk price needs to be nearly \$33 per cwt. And the milk price will likely need to go even higher, depending on the continuing inflationary pressure on feed, fuel, and other farm expenses."

The Northeast Organic Dairy Producers Alliance (NODPA), a membership organization that represents many of the region's organic dairy farms, wants a 20% increase in base organic pay prices for 2008. In the January 2008 issue of NODPA News, Executive Director Ed Maltby published a set of approximate cost projections for 2008 based on updates of the Parsons study of Vermont and Maine dairies, USDA data, and "anecdotal information supplied by producers."

According to this analysis, a 20% increase would take the average New England base price for organic milk to \$32.00 per cwt. With a typical \$3 bonus for components and quality, producers would be paid \$35.00 for their milk. Cattle sales income, crop sales and other income would bring total income for an "average" New England organic dairy to \$39.93/cwt.

But with depreciation and a \$40,000 family living draw, Maltby's numbers show a *negative* return of \$2.81/cwt., even with \$35 milk. At an estimated \$17.20 per cwt., purchased feed costs are nearly double NODPA's listed 2004 cost, and would eat up virtually half of even the \$35 milk check.

Organic milk prices are going to go up in New England — and everywhere else for that matter. If nothing else, organic buyers are going to have to offer much bigger premiums above the conventional market if they are going to attract enough milk to satisfy the ever-growing (for now) consumer demand. That demand, the barriers to organic production, and the efforts of organizations such as NODPA have done a tremendous job of bolstering and supporting pay prices — at least in comparison to the conventional milk market.

Yet there are a few troubling and disappointing aspects to all of this. The disappointment centers on the nasty war of words that is being directed from NODPA and its associated regional organic dairy farmer groups (under the FOOD Farmers banner) toward buyers such as HP Hood, Horizon Organic and Stonyfield Farm (which gets its milk from Organic Valley) for failing to increase pay prices to match cost increases on the farm.

Stonyfield fired back by citing "an explosion of low-priced, competitive, private-label organic yogurts supplied by producers of non-family-farm milk, creating downward price pressure in the market." Read between the lines, and you can see that Stonyfield is hinting that it will go elsewhere for its milk if New England farmers start demanding too high a price.

This is disappointing in that such name-calling and veiled threats are so familiar in the conventional milk markets. While I realize that there is more than a little public opinion politicking going on here, this is not supposed to be what organic is about. Organic originally was supposed to be farming *with* nature, not against it. If you are dairy farming *with* nature, you should not be greatly affected when the price of organic corn goes to \$380 per ton, because you are operating a system that should not require great quantities of purchased feed. You should thus avoid much of the escalating-cost trap that snared so many conventional farmers. It's disappointing that this is not the case in New England.

This brings us to a couple of the troubling parts of this, which revolve around farming systems and attitudes toward the possibilities of changing them. According to Parsons, in 2006 "average organic dairy farms in the northeast had income in excess of family living for the first time since 1999." If 2007 was a money-losing year as suggested by NODPA projections, and 2008 is to be worse, then New England's organic milk producers will have lost money in eight of the past nine years despite milk-price increases in the neighborhood of 50% during that time.

The stock solution is to continue to increase pay prices, because farmers have "no control" over the costs, Maltby says. Adds Parsons, "The situation is quite simple. If family run organic dairy farms are to survive, they need a

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Dan Vosberg

What if? The rationale for a dual-purpose cow

This is a “what if” article. *What if* most of what we have known changes greatly? *What if* the management that has allowed us to succeed becomes less successful in the not too distant future?

I think it’s safe to say times are changing. High oil prices are shaking agriculture and the entire U.S. economy. High grain prices, high hay prices, high land rent, high fuel and fertilizer prices — all are the direct result of high oil prices.

Meanwhile, consumers are scrutinizing the livestock industry. Laws dictating livestock treatment are starting to show up, and food safety is becoming a real issue. People are looking at buying food locally. Balancing ratios of Omega 3 and Omega 6 fatty acids is becoming more popular, and probably necessary. People don’t necessarily want new technology used in the production of their food, especially if there’s a chance it can be abused. If you look at what’s happening to genetically engineered rbGH, you realize we can’t ignore the saying “the customer is always right.”

As the world spins faster and faster, the challenges are coming at an alarming rate. On our farm, the higher costs are hitting us right between the eyes. Without irrigation (which won’t be real easy to add here), we’re getting close to the maximum number of cows we can carry, so growth isn’t necessarily the answer.

I don’t think it’s going to be enough to just look at milk per cow, milk per acre, or milk per labor unit, because the costs of gaining this extra milk may be too great. We need to be looking at feed efficiency, direct marketing, adding value, and selling replacement cattle, breeding bulls, feeder steers and finished steers. But we also don’t want to see performance drop as a result of reducing inputs. We’ve been low-input before, and we weren’t as profitable.

We see possible opportunities. We know our milk has the potential to fetch a higher price because we’re grazing. I already have extra cattle to sell every year, and people are calling us for bulls that are not Holstein. People are starting to ask us for grass-fed meat and eggs. By taking a wider view of profitability, can we keep our business viable in the face of changing realities?

The cows fit into all of this. I keep asking myself, “do we have the right kind of cow to meet this changing industry?”

Overall, our Jersey crosses have served us well. They’ve given us good conception rates, longevity, better grazers, decent production, calving ease, and overall low maintenance compared to a high-producing Holstein.

On the flip side, these cows aren’t always easy keepers. They can get milk fever. They have smaller calves that are hard to start, and the bull calves aren’t worth much. Small cows have a very low cull value. We tend to have too many Jerseys blow out their beautiful, tight udders.

The cows and heifers need high-quality forage. They don’t outwinter quite as easily as some breeds in our upper midwestern weather, especially without grain. Some are low producers. The steers take a long time to finish and don’t bring a great price.

Then we come to the fact that they are crossbreds: when sold as dairy replacements they don’t fetch as much money as purebreds. Hybrid vigor does mean we may have more to sell than if we had purebreds, but it still takes labor and money to raise them.

So while we’re doing well now with this kind of cow, I’m concerned about the future of depending upon an animal that requires so many inputs and has so many shortfalls while producing only one valuable product — milk.

What if we could have a cow that retains 99% of the benefits of a Jersey cross while improving on most, or even all, of the negative traits listed above? Would that kind of cow help us better meet the opportunities and challenges coming our way at 100 miles per hour?

Onto our farm steps the modern day dual-purpose cow, an animal designed to profitably produce milk *and* meat while requiring a minimum of expensive feeds and labor. I’m not talking about crossbreeding based solely on dairy characteristics. I’m referring to animals that, while they have been selected over the last few decades for more milk, also retain more

muscling than the modern dairy cow. There are several options here, such as Montbeliarde, Fleckvieh, Tarentaise, Abondance and Normande. Some people say these breeds don’t milk enough, but could these or similar breeds better suit our future needs?

This thinking is based on our experiences with Normandes. For full disclosure, I need to say that I am on the board of Normande USA, and we are heading down the road toward being a supplier of Normande genetics.

Yet the observations I’m going to describe below were made before we thought about getting so heavily involved in the breed. In other words, I’m

not making this stuff up to sell something. I think that many of these traits are found in other dual-purpose breeds, so you can substitute another breed when I mention Normande. I just want to show the thinking behind my dual-purpose statement.

Our oldest Normande-cross cows are entering their sixth lactations, and all have outlived their dams. Most of the original crosses are still with us, so they have longevity. We are strictly spring-seasonal and sell or cull virtually all animals that don’t calve within an eight-week window, so these cows have bred back as well as the rest of the herd.

When compared to our other Jersey crosses, most of our Normandes land in the top 25% of the herd for milk, butterfat, and protein. In general, I think they test like a Jersey but have the potential to milk a little better. Most Normandes have the BB Kappa Casein gene, which means more cheese per pound of milk.

They are good grazers. They don’t run all over the pasture looking for the best grass — they put their heads down and start grazing. Although I have no proof, they seem to graze longer than other cows. They’re less picky about the forage they eat: I’ve watched them eat the flowers off thistles. They have big, wide muzzles and great feet. Bad weather doesn’t bother them as much, mentally or physically. Although I’ve never separated them from the rest of the herd, I think I can winter them on less energy.

What about the udders? We’ve seen them range from high, beautiful udders to rather low ones. One reason could be that early on we didn’t use Normandes on our best-uddered cows. Even if the udder might not be as high as we’d like, the main ligaments that keep the udder from “blowing out” have stayed strong. We’ve had problems with way too many high-and-tight Jersey udders.

Overall, our Normandes run a lower somatic cell count than the rest of the herd. They don’t seem to be susceptible to milk fevers or D.A.s, which is something I’ve also heard about some of the other dual-purpose breeds.

What about calving? Moving away from Jersey sires is going to negatively affect calving ease no matter what breed you use. We don’t use Normandes

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What the *Graze* advisors say

This month's question:

Are you an N-P-K person, or something more?

If you have a question you'd like addressed, contact *Graze*.

Jon Bansen

Long-term rotational grazing of dairy cows definitely has advantages in managing soil health and nutrients. Over several years, P and K take care of themselves, and liquid manure from winter confinement can give that needed boost during the growing season. Soil microbes and earthworms are healthy, and slow-release N is available from manure direct-spread by cows during the growing season. This helps boost spring growth as soon as soil microbes begin to get active.

The farmer can thus turn his attention to fine tuning his soils. For me that means concentrating on calcium levels, along with some of the micronutrients.

Our first six years on this farm we added no lime to our fields. Our tests showed a pH that was too low, but I had a hard time justifying a big payout with the grass looking pretty good. What I didn't realize is that it could look much better with some added calcium. I believe lime is one of the most under-utilized soil enhancers on dairy farms.

It helps to increase feed intake by "sweetening" the grass and increasing micronutrient uptake by the plants. These micronutrients are in a form much more available to the cows than mineral mixes delivered at the feed bunk. It also makes the soil more neutral, so soil microbes are healthier and micronutrient availability is further boosted. Earthworms benefit as well, which helps soil porosity and thus water absorption. After several years of top dressing all the pastures with a ton of lime per acre, I'm now at a place where I can keep pH levels where I want them with a couple hundred pounds per acre mixed with some micronutrients that are low in our soils.

I think selenium is needed in our high-rainfall environment. All of our soils are low in selenium, which is an important micronutrient for the cow's immune responses. Putting selenium on the pasture makes it much more accessible to the cows. I'm also adding a little boron with the lime I am putting on the pastures this spring, as all of our soils have tested very low in boron.

The problem with adding lime is that the results are not immediately measurable, so the cost benefit is not clear. The evidence for me is that the cows stayed healthy and in good body condition when I went to a low-grain ration last year during pasture season. It is also in the fact that even with the cost of the added inputs, our profitability has continued to climb during the last several years. Without adequate levels of N, P and K, there will always be limitations to pasture growth. Fortunately, those nutrients are not usually an issue with long term, rotationally grazed ground.

Jon Bansen milks cows on an organic farm near Monmouth, Oregon.

Bonnie Haugen

I think soil condition, fertility, nutrients, and anything else that matters are extremely important. This being said, I know little more.

We have had soil tested every three or four years since we bought this farm in 1993. I am not a soil scientist, but certainly see greatly improved production on acres where we added manure and organic matter, along with NPK and lime according to recommendations for the next forage planting. While I believe those components were significant to the improvement, so was planting better seeds. My data are far from scientific.

Most years in late May/early June and again in late August/early September, I apply about 60 lbs./acre of N on certain forage strips so I can either make stored feed for winter, or graze longer in the fall.

We have not tried any foliar feeding of our forages. If you ask me if this or similar practices are nuts, the answer could be either "yes" or "no." I also think that sometimes we have practices that seem to work, but the results are either coincidence, or we have not yet developed the tools or parameters to properly test those practices.

All I do know is that I need to be aware of the many studies out there so I can decide whether or not they are relevant to my farm. And since most of the time my spouse understands this area better than I do, I also rely on his "bull-snerf meter."

Bonnie Haugen milks cows near Canton, Minnesota.

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Bernie Van Dalfsen

On this farm we should no longer need to apply P and K, as essentially we have not mechanically harvested forage here, and we purchase additional feeds. Having more than one cow per acre means bringing in considerable feed volumes at times.

In that purchased feed there are N, P, K and other nutrients to feed the soil. We do use N, lime and sulfur. We will lime the entire farm this year, adding one ton per acre. We did the same two years ago.

I do think there is more to learn about the role micronutrients play in plant growth. There are likely some location-specific needs. Still, running high stocking rates and buying in the rest of what the herd needs does much to reduce fertilizer costs, and the resulting manure is still likely the best all-around plant food.

Bernie Van Dalfsen milks cows near Reeds, Missouri.

Arden Landis

N, P, and K are very important: as an organic farmer, I know I need these elements to get good grass growth. But if those are the only nutrients I look at, I am missing other, very important elements of the soil’s makeup and requirements. So when I soil test, I don’t only want to know about N, P, and K.

We keep track of soil pH, and I will also test for Ca and Mg. I want to know how well the Ca, Mg, and K are balanced in the soil. From there I will also be observing the soil sulfur levels, as sulfur is so important to soil, plant, and animal health. We also test for trace elements such as boron, zinc, iron, manganese and aluminum. Having too little or too much of one or more of these trace minerals can create health problems, anywhere from the soils on up the food chain.

We are always addressing the soil’s needs, as it’s all about making the soils healthier. I have found that as the soil fertility increased and came into balance, the animals’ health improved. Caring for the soil is no different than feeding a cow: if you over-do it in one area or another, you are going to create problems. I thus follow the Albrecht soil balancing methods rather than just fertilizing with N, P, and K.

Arden Landis milks cows on an organic farm at Kirkwood, Pennsylvania.

Danny Strite

When we soil test, we test for all major and micro-nutrients. We are also interested in soil organic matter.

There is much more to the soil than just plain old N-P-K. When God created the world He made it good, and He also made things to work in a certain balance. Everything works in a balance, and must be kept that way. Granted it is sometimes tough to find that balance, but it must be maintained for maximum productivity.

We use KOW Consulting for soil consulting work, and balance according to recommendations. Typically on our farm we need lime, boron, nitrogen and sulfur. There is no need to apply something that is not necessary, which is something that happens on some farms where NPK is purchased and applied because “that’s the thing to do.”

Fertilizer should be applied frequently in small amounts. Foliar feeding has its place, but ultimately you should be feeding the soil and the soil microbes to balance the crops and, ultimately, the cows. Foliar feeding only feeds the plants, and typically lasts only a short period of time.

Danny Strite milks cows near Williamsport, Maryland.

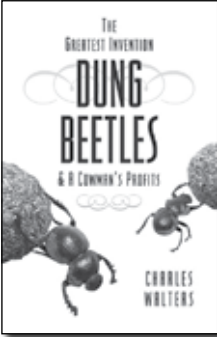
Dick Ryan

I am not sure if we are N-P-K people or not, since we did not pay much attention to those details before our state imposed a mandatory manure management plan program. Putting this plan together has made us look at these elements in the soil and what we are applying through our grazing cattle and compost. This has helped us better understand the value of our compost and where we can use it more effectively. It should help us understand why some paddocks do better than others, even when all other inputs seem to be identical. We do not use a lot of commercial fertilizer — only to correct some things we find that are way out of whack, which is not that often.

Since we do not apply micronutrients or other fertility products, I would not know how to comment on them, other than I find them interesting. Perhaps some day we may do some testing to discover their benefits.

We are interested in, and keep a watchful eye on our organic matter. We

continued on page 6




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Vosberg

continued from page 3

on heifers. With Normande sires, we've certainly had to help out a little more than in the past. But many are born without assistance, and we've only had one pull I would consider very difficult.

In terms of toughness, aggressiveness and survivability, there is a day-and-night difference between calves with Normande blood and those without it. Starting these calves is a pleasure. We've actually had some try to suck our fingers before they were even out of the cow.

As calves, they're very aggressive eaters. After weaning, we separated the Normande-cross calves and fed them two pounds less grain than the other calves, with no ill effects. They also seem to be willing to eat poorer-quality hay than our Jerseys. The bull calves bring a lot more money. Breeding-age bulls are more docile than the Jerseys.

This past grazing season, we ran two 75% Normande steers with the milking herd, so they had the same diet as the cows. They finished at less than 20 months of age, and graded Select. The Normandes have been a very "easy keeper" breed, requiring fewer hours of labor per head.

How much of this is due to hybrid vigor? Perhaps breeding performance. But compared to our other 50% crosses, the Normandes are stronger, deeper bodied, and have more muscling. Maybe we'll find out that 50% is as far as we want to go, but right now we're going to go farther than that on a portion of the herd.

These cows may well end up 25% larger than my current Jersey crosses, so they will require more feed for maintenance. But what kind of feed?

Energy feeds account for the biggest share of our feed bill. If we can get the same production out of a cow on cheaper feed, that's an improvement in feed efficiency. A dual-purpose cow may not respond as well as a Holstein when the grain is shoveled to her, but she probably won't drop as far when the shovel is taken away. In fact, a soon-to-be-released study comparing Normandes and Holsteins indicates that while the Normandes don't respond as well to higher amounts of grain, important factors such as fertility and overall health improved for the Normandes when the grain ration was reduced.

Based on our experience thus far, just moving to more dual-purpose cows, and not changing anything else, would probably increase our rolling herd average and pounds of milk solids shipped. For body growth, there's no question that the dual-purpose breeds can get by on less feed, and possibly lower

quality feed.

In France, Normande bull calves are tested for feed efficiency on low-energy rations before they can qualify for milk progeny testing. If a cow is less picky about what she grazes, that could mean less clipping or haying, and it might give us a more options for planting and managing forages that better match our farm.

Being able to stay outdoors longer on less grain in the winter is where I think the dual-purpose cattle really shine in my part of the world. We normally run about 220 head in the winter, and I feel we could save around \$50 per day through reduced grain feeding with dual-purpose cattle. You can also figure less time in buildings, and potentially less bedding and manure hauling. If the cattle are less susceptible to milk fever you don't have to worry about feeding expensive anion salts or finding low-potassium hay.

I think we'd have a lower vet bill, higher cull-cow income, and higher bull-calf income. If we decide to sell grass-fed cheese and meat, the higher-percentage grass diet required for this may not affect our milk production, reproduction, or steer-finishing ability at all. We'd get the best of all worlds.

If we take the breeding one step farther, and go to registered purebred breeds of dual-purpose cattle, we've added the dimension of a niche market for breeding stock that should fetch more money than crossbreds. Granted, we will lose crossbred vigor.

While this is partly just talk, I am putting my money where my mouth is by breeding a large percentage of the herd to Normande this year. Stay tuned.

Dan Vosberg milks cows near South Wayne, Wisconsin.

Advisors

continued from page 5

try to make decisions based on increasing our OM whenever possible. We have experienced the benefits of higher OM, such as healthier swards, more drought resistance, and fewer weeds, so we strive to increase it whenever possible through management practices.

Most of our pastures are maintaining a pH of 6.0 or more, so we have not used lime in at least 15 years on any of our pastures. Our experience has been that at a pH of 6.0 our clovers do very well — not any worse than the clovers located on soils with a pH of 7.0

Dick Ryan grazes stocker cattle near Lodi, Wisconsin.

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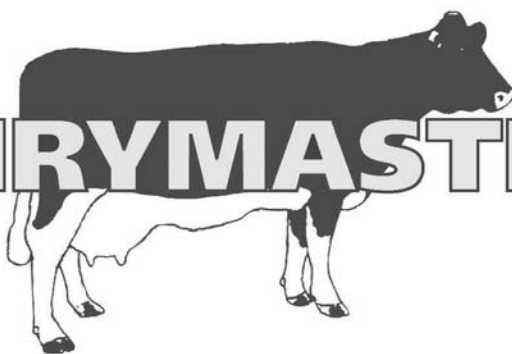
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continued from page 2

higher payment for their milk.”

New England merits special pricing consideration based on its proximity to major organic markets and the production difficulties related to its climate, topography and soils. But where does this end? If organic corn goes to \$25 per bushel and diesel runs up to \$6 per gallon — and both of these things are entirely possible — will the break-even, stay-in-business price of organic milk rise to \$50 per cwt.? Will Stonyfield buy its organic milk in New England if a Tim Pauli-style, midwestern dairy can produce it for \$15 per cwt.? (That’s my rough calculation based on Tim’s costs as shown in the February 2008 issue, a bit of inflation, plus a \$35,000 annual family living draw.) Will consumers paying \$7 for a half-gallon of organic milk heed the complaints of dairy farmers as the U.S. economy stumbles under the same forces that are pressuring farmers?

I don’t have the answers, and I want to avoid sounding like a non-farm “expert” pointing fingers from the sidelines. Lots of small farms are locked into costly capital structures and mindsets that are difficult to change, and this isn’t just the case in New England. But I can’t help but think that these things *have* to change if there is going to be an organic dairy industry.

I went calling to some much better experts, namely a few of the organic dairy farmers who write for *Graze*. In Ohio, Ernest Martin said he was figuring out how to avoid paying taxes despite forking out \$250/ton for hay and more than \$500/ton for grain. “I know I risk sounding like a conventional economist, but we cannot farm organically with a conventional mindset and make it work,” said Ernest, who happens to be a director in Midwest Organic Dairy Producers Alliance, a sister group of NODPA within the Food Farmers organization.

In Lancaster County, Pennsylvania, Arden Landis said he had a “good year” in 2007, largely because of dairy cattle sales created by an ultra-low culling rate. He is doing well even though he is renting his dairy, plus land to raise heifers and grow forage in a high-cost part of the world. Arden, who is on the NODPA board, has made a few trips to New England. He says there is a tendency to do “pasturing” there, and that there is room for more management-intensive grazing.

And in New York, Rob and Pam Moore keep chugging along while feeding no grain to their milking herd. At my request, they figured their organic feed costs for recent years, including costs for custom hay harvest. Last year that tab came to \$8.31 per hundredweight even though they shipped just

247,000 lbs. of milk from 50 cows because of high consumption by their calves (see November 2007 *Graze*). The Moores are certainly helped by having nearly five acres available per cow, but they do have debt, and the land is thin-soiled and steep. While Rob admits that he and Pam don’t live a life of luxury, they are also not saying they will go out of business soon without a substantial pay increase.

Would better-managed grazing help other organic farmers in the Northeast? “I think it would go a long ways in helping,” Rob says.

There are no easy answers. But it is easy to predict that price alone is not going to solve New England’s problems, because history tells us that high prices cannot be maintained without strict enforcement of production and import quotas. Such enforcement is not on the horizon.

The organic market has been oversold as the savior of the family farm, because the organic market premium by itself does not ensure sustainability for the family farm. The production side is at least as important, and the production side cannot include all of the baggage that drove conventional producers out of business — or to the organic market.

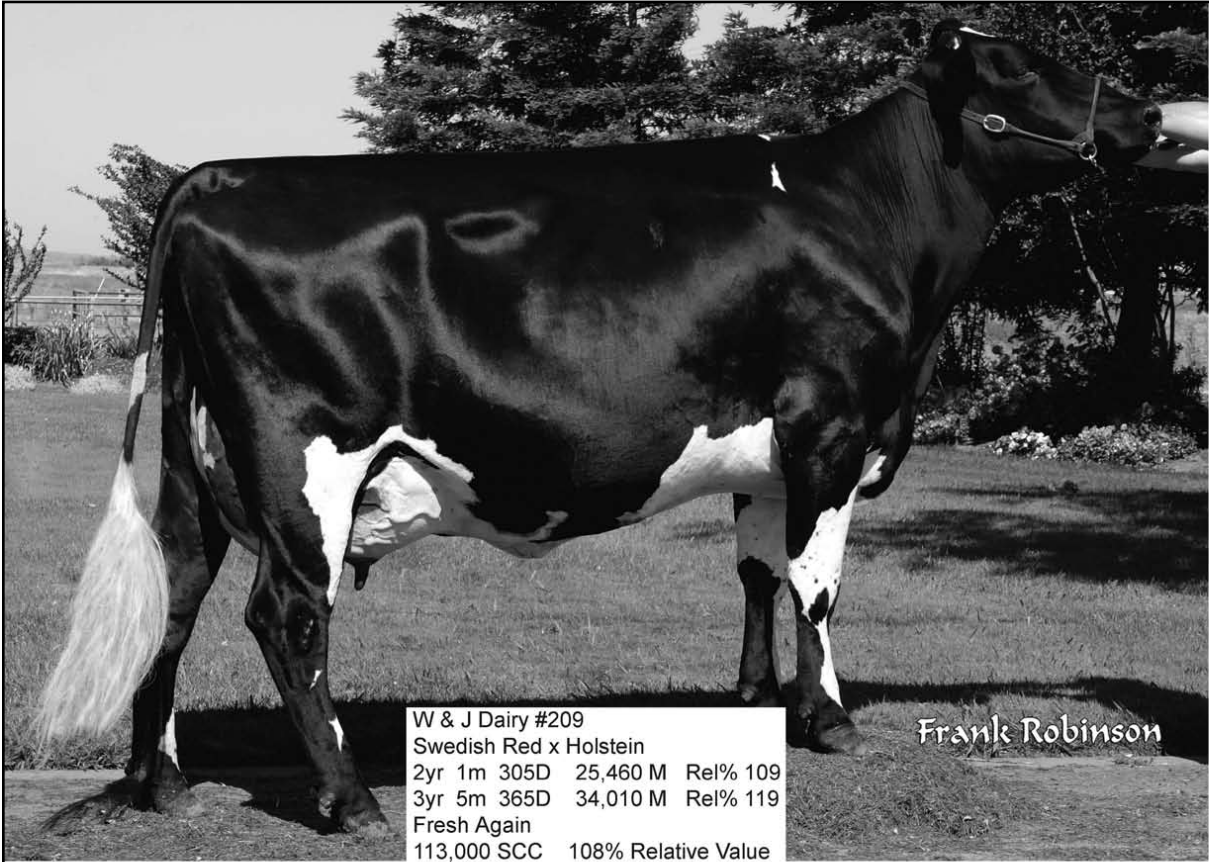
Organic is a good thing if it is coupled with the sustaining principles of working with nature that guided its founders. In the Midwest, the most sustainable organic dairy will be something close to the Tim Pauli model, or perhaps along the lines of what Amos Nolt is doing (see October 2007 *Graze*). In the Northeast, what Nathan Weaver is talking about in this issue may well be close to the ultimate ticket.

As I’ve said many times, farm production models that *require* premium prices for business success always make me nervous, because I know that premiums are not always sustainable within the brutal game that agribusiness plays.

Ultimately all livestock producers, including those who have no interest in organic, are going to be in the same place. Eventually the battle between food and energy in the countryside is going to be so intense that today’s organic grain prices will look cheap to *conventional* producers.

At that point, labels like “grass-fed” and “organic,” and the price premiums attached to them, will be non-factors. The new reality will dictate that the most sustainable will be the most viable. Price is just a small part of the sustainability equation. And true sustainability starts from the ground up, not the market down.

In addition to publishing *Graze*, Joel McNair grazes dairy heifers and sheep on a small farm in southern Wisconsin.



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By Nathan Weaver

If you read Joel McNair's column last month, you are expecting this article.

I do not greatly disagree with the presentation on heavy supplemental feeding, and the numbers presented from the featured farms are impressive. I do not expect these on-farm financial situations to change drastically and suddenly.

Where I differ from Joel is that I do not think a dairy farm that uses grazed pastures for just 20% to 30% of the cow's total annual diet — roughly the percentage she'll be at if she's gaining 35-50% of her diet during the grazing season — can suddenly and efficiently roll over into a self-sufficient farm should the energy crisis come in two years, 10, or 20.

If only 20-30% of the herd's feed requirements are met on grazed pasture, I think that relatively few of these people will develop the grazing skills required to make a more self-sufficient grass farm work.

Likewise, the herd genetics won't be taken in that direction, and neither will the pasture species and development. We cannot wake up one morning to find that today is the day that purchased inputs are no longer viable, and flip a switch to take us into a self-sufficient mode. A biodynamic farm takes years to get into order.

Paradoxically, the best way to get our farms to self-sufficiency is to listen very closely to what Joel is trying to say about buying in feed. I think that for most farms to develop their grazing skills and herd genetics, the total feed a cow grazes from pasture should be above 40% of the total annual feed intake. From my experience and from watching others, I see that this is the minimum required to develop such important factors as the grazer's skills and the cow's genetics.

Except for the different view of that percentage, I cannot think of a better

way of making money while building soils than to buy feed from off the farm. Through careful nutrient cycling, the resulting manure can lead to high fertility in the soils of your farm.

This development of high soil fertility is the part of the self-sufficiency equation too few farmers understand. I have little hope for graziers who try to make money with self-sufficiency from low-fertility soils and cows and pastures that are not adapted to the system. The goal is to achieve soils with organic matter levels well above 5%, phosphorus levels that allow clovers to thrive, and well-balanced levels of cations and trace minerals.

Since this takes years and years to get in place if you are starting out on a crop farm with low levels of soil organic matter and fertility, the best time to get started is right now. However, we need to have a vision of where we want to be. If we cannot visualize a self-sufficient farm, it is almost assured we will never arrive at that farm.

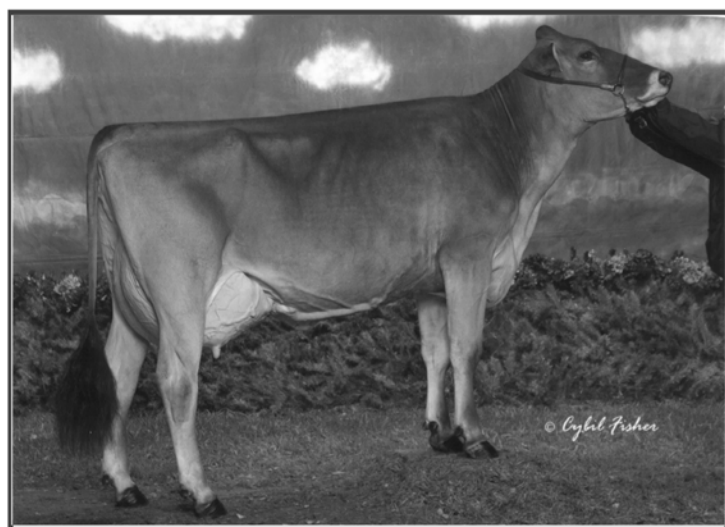
Here is the vision Joel and I talked about. What are the financial capabilities of a 100-acre, all grass, self-sufficient farm?

This farm would be purchased at \$4,000 per acre, or a total of \$400,000. I'll assume that family housing is in place at this cost, and that the soils are well limed and capable of supporting such a self-sufficient farming operation. I am going to outline a Plain business model, as that is what I am familiar with.

With creativity in using local resources, used equipment and the help of donated labor, the farm's infrastructure can be put in place at a reasonable cost. In my own situation, we erected a 48-by-128-foot bedding pack barn with an attached 30-by-36 building with a swing-6 (expandable to 8) "parabone" milking parlor and a milk room. We also built a three-sided, 28-by-56-foot machinery shed. Fully equipped and ready for cows, total cost for these facilities came to just under \$60,000.

We'll assume that enough equity was available to pay for these improvements, and that both livestock and equipment are 100% owned. For the property, a \$400,000 loan amortized over 20 years requires monthly payments of about \$3,000, or \$36,000 per year.

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No-grain and self-sustaining

continued from previous page

Here are annual the out-of-pocket costs to run the self-sufficient dairy with 65 milking cows and young stock (I'll explain later how those cow numbers were arrived at).

- Real estate taxes: \$4,000
- Supplies and repairs: \$5,000
- Fuel for harvesting, milk, hay and feeding @\$4.00 per gallon: \$5,000
- Bedding materials, minerals, salt and herd health: \$5,970
- Depreciation (20 years on buildings): \$3,000
- Subscription to *Graze*: \$30

Annual total: \$23,000

Add the mortgage payments to the out-of-pocket costs, and we come up with \$59,000 in expenses to run a self-sufficient dairy. Notice that there is nothing here for feed purchases: we are aiming to be truly self-sufficient on these 100 acres.

Now to the production side, which starts with the grass. We must be able to harvest four tons of quality forage per acre. This is critical: My whole hypothesis breaks down if we cannot achieve this goal.

Is this realistically attainable from perennial pastures with permanent swards and no synthetic fertilizers? Obviously we'll need productive, naturally limed, loamy soils. In high organic matter (5-8%), properly mineralized soils, I do not think nitrogen will be the limiting factor. Phosphorus may be, and rock phosphate dust may have to be part of the bedding protocol. In my observations where limestone is the dominant bedrock, lime is infrequently and, in most cases, never needed in permanent pasture production. This does not apply in frequent-tillage programs and/or naturally acidic soils.

Two dry matter tons of high-quality forage should be a given in the first 60 to 80 days of the year's growing season. The other two tons are a larger challenge. Composted manure from the winter bedding pack comes into play here. Being an active, slow-release soil amendment, it must be timed to kick in at the very start of the summer grass growth slump.

Perhaps 80% of the grazing community is doubtful of the production capabilities of 10-year old (and older) swards. I dare to differ.

First off, I don't think it possible to build soil organic matter with tillage. Even tilling only once every five to seven years results in the breaking down of

the previous work of the grass sward. Also, just having pastures in grass does not guarantee high organic matter soils. We must add well-managed, pulsed grazing if we hope to build soils. Over- or under-grazing can be nearly as detrimental to organic matter as plowing. The major reason why farmers are biased against old pastures is that they think these swards will eventually return to the likes of pastures the heifers have subsisted on for decades.

French grazing pioneer Andre Voisin shed some light on this. "The lean years" is how he described this transition from a ley (frequently renovated) pasture system to a permanent system. In this period of four to 12 years after the field has been seeded, the benefits of the improved forage varieties start to diminish, and the dynamics of the permanent swards have yet to be established.

It is this fall-off in productivity that becomes frustrating to the farmer. This causes him to lose patience with the system and rip up the whole thing, starting the cycle anew. If we could just see ourselves through these lean years, I think we could look a lot more favorably on permanent systems.

I think this scenario also applies to loamy soils and in regions where summer temperatures do not frequently rise over 85 degrees F. It does not apply nearly as well on heavy clay soil subject to compaction, or in climates with prolonged summer heat.

Now, to harvest that four tons per acre of high-quality forage. Sixty-seven percent of it needs to be grazed, with the other 33% taken by mechanical harvest. The harvesting equipment would be shared by two to five farmers. In most cases, some method of high-moisture harvesting will be needed to assure quality. As much as possible, the haying and manure spreading are done by machines with ground-driven mechanical power. Traction is supplied by two to four draft horses per farm. If 33% of the 400 tons of forage on the 100-acre farm are mechanically harvested, we will have 132 tons of dry matter hay.

How much milk production can we expect from 400 tons of quality forage? Here I borrow heavily from *Milk Production from Pasture, Principles and Practices*, a 2002 book from Massey University in New Zealand.

First, we need a small cow — one that weighs less than 1,000 pounds. NZ research shows that compared to a larger animal, a cow weighing less than a thousand pounds uses a smaller percentage of feed to maintain body functions, and a greater percentage for meat and milk production. Also, such a small cow is capable of consuming 4% of her body weight in grazed grass (dry matter basis) at 60 to 80 days post calving (she won't maintain that throughout lactation, though). A cow over 1,000 lbs. can graze only 3.6% of her weight.

In New Zealand, the data show that the 1,000-pound cow will eat 8,800 pounds of dry matter annually (including the dry period) to produce 7,550 lbs.


continued on page 18

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Jay Weaver and son Jeremy are pictured during the afternoon milking at Weaverline Holsteins. This three-year-old is from their Echo cow family. "Weaverline Finley 733" classified 85 points with a VG mammary. Her second lactation 363-day record is 32,356 milk 1161 fat 942 protein. Jay buys his Udder Comfort at Huber's Animal Health in Myerstown, Pa.

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Tips for starting (and keeping) a grass dairy

By Larry Tranel

Although it's only been five years since they began their career, the start-up formula that produced success for Eric and Amanda Gaul (see article on page 1) won't be the exact success formula for all future beginning dairies.

Everything costs more now. Land prices and rents in the Corn Belt have almost doubled over the past five to eight years. Prices for supplemental feed, especially corn, have increased by the same amount in even less time. Dairy cow costs have risen almost 50%. Fuel and other input costs have soared. These changes must be accounted for by anyone considering a new dairy career.

At the same time, milk prices have also increased 40% from the original five-year projection, and they will have to stay relatively high if U.S. dairy producers are going to have a chance of paying their bills. There is still opportunity available.

It's difficult to determine where we're going. Also, every farm is different. Yet the basic elements of the game plan for success on a grazing-based dairy still hold. The financial risk is real, just as it always has been, so it is wise to plan your beginning dairy with caution and a conservative outlook.

With that in mind, here are my "Top 12" list of tips for future success, especially where winter is a factor and feed is available. These ideas apply both to beginners and those of you who have been at this for a while.

1. Feed thy cows. Most of the U.S. is not New Zealand or Ireland, where the energy level of the grass is much higher. It is thus difficult, if not impossible, to fully feed dairy cows with extremely low levels of supplemental feed. Each pound of dry matter above maintenance equals about 2.5 pounds of milk in the bulk tank. At \$15 milk, each pound of additional dry matter costing less than 37 cents that you can get into a cow is worth feeding. Do not try to save money by feeding cows less dry matter, as you starve the cow to a degree — and your bank account.

2. Dry matter intake is key. Each pound of grain displaces about two-thirds of a pound of forage. Thus, grain feeding increases dry matter intake, and leverages Tip No. 1.

3. Feed quality is crucial. Harvest and graze high-quality feed, and focus on tons of digestible dry matter. If you wait two weeks to cut first-crop hay, you will attain more quantity, but generally less digestible dry matter. Grazing forages when they are taller than the cow's eyeballs produces less milk, and more trampling and waste.

4. Labor efficiency is king. As a young producer with minimal equity, you must turn your labor into cash. Can you afford to milk 35 cows per hour or sell 500,000 pounds of milk per person and 5,000 pounds of milk per acre annually, when your neighbor is turning 60 cows per hour, selling 1.3 million pounds of milk per person and 15,000 pounds of milk per acre annually? I understand that some people enjoy milking in stall barns, and some can't cash flow even a low-cost parlor. But can you really afford not being more labor-efficient?

5. Milk in a low-cost parlor. As a beginner, you don't want to spend top dollar on anything. For you, the efficiency of a low-cost parlor can be as good as that of a milking system that costs much more. Every \$1,500 invested in milking equipment or machinery is a lost opportunity for milking one more cow. The \$40,000 tractor may be a lost opportunity cost for milking 25 more cows. Once you are established, it can be a different story — you can afford the luxuries that make life easier. But not until then.

6. Breed thy cows. Timing and breeding success — especially in a semi-seasonal, fall/spring calving system — is a great key to profitability. Not getting cows bred costs money. Use good genetics and either consider crossbreeding, or have a keen eye for not increasing inbreeding. If you are somewhat seasonal,

the average Holstein does not demonstrate the reproductive ability to compete with crossbred cows.

7. Genetic improvement is important. Herd bulls are costly in terms of the costs of keeping them, danger to the farmer, and the long-term profitability of the herd. They can be used for clean-up purposes, but don't bet your future on them.

8. Cow comfort is crucial. The problems caused when cows spend a hot afternoon without water on pasture, or are wintered in bad conditions, can make buildings look more cost effective. This is not to say that outwintering cannot be used judiciously, but the extra 3-5 pounds of daily grain required to maintain body condition in cold and wet weather can balance building costs quite well at today's prices. When they can't be comfortable on pasture, cows make milk best lying in a clean, comfortable stall or bedded pack. Give them these things.

9. Learn proper production techniques. Herd health, milk quality, milking procedures, reproduction, feed management, ration balancing, pasture fertilization, forage storage and a whole host of other technical skills are important to success. Do not minimize their importance because you're running a "low cost" system. The most profitable grazing farms combine the best of conventional dairying with the best of pasture dairying, and tend to make out on both ends.

10. Analyze your finances annually. Your banker is interested in cash flow and equity concerns, and this person may be your worst source of financial

As a young producer with minimal equity, you must turn your labor into cash.

advice because of that vested interest. (There *are* some great bankers.) Profitability is your main concern. Correctly adjusting your cash records for inventory, and then analyzing costs of production by benchmarking important production and financial ratios, is how you can take your dairy to the next level of profitability. Dairy TRANS

is an example of a software program that you can employ to offer yourself a picture of what you might need to change.

11. Be careful about going organic and/or fully seasonal right away. The track record of those who have tried to do these things from the start isn't very good. It's better to develop a profitable operation first. Then, if organic or fully seasonal can help satisfy other financial or quality of life goals, pursue it. The organic herds this author works with are not generally showing higher levels of profit than non-organic herds, and are sometimes lower if conventional milk prices are good. Strict-seasonal can be as profitable depending how labor is valued. Semi-seasonal, mostly spring calving does seem to be more profitable than year-round calving.

12. You need enough cows to cover the costs of your assets. A low-cost conversion of available facilities can allow one person to milk 60 to 80 cows, which can allow you to stock one cow for every one to two acres as the base of operations. This is how you make financial progress. Thinking of 80 cows per person can be overwhelming until we consider that 80 cows on 80 acres in a labor-efficient grazing operation need not increase labor very much compared to managing half that many on a high-labor farm. For instance, the ability of a grazing cow to haul her own manure is a big time-saver compared to confinement dairying. Cows are employees who harvest forage, and many producers can trade crop work for cow work if they've set up their farms for efficient labor management.

Dr. Larry Tranel is an extension dairy field specialist with Iowa State University.

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A dairy great start—

continued from page 1

was \$17.11, producing a net profit per hundredweight of \$4.14 with labor, equity and all other costs already included.

Eric began with 1.1 million pounds of milk sold per worker in 2004 and grew to 1.4 million pounds of milk sold per worker in 2007. He sold 12,820 pounds of milk per acre in 2004, and grew to 20,838 pounds of milk per acre in 2007. Milk sold per cow grew from 13,197 pounds in 2004 to 16,208 pounds in 2007.

Return to assets has averaged 34.31%, which means that borrowing money at 6.5% interest to start the operation leaves a profit of 27.81% for every dollar borrowed. That seems like a good use of borrowed money.

The operating profit margin was 27.97% and the asset turnover ratio on their assets (not including my land and buildings) averaged 120.36%. Thus, the operation profited about 28 cents for every dollar of gross income, and in about 10 months grossed enough income to pay for all the assets being used.

Granted, milk prices were good, but even if milk prices had been at the \$12.97 average cost throughout the four years, the Gauls would have earned enough to pay for family living and debt service.

Again, not bad for a dairy with just 70 available acres! Increasing net worth from \$0 to over \$300,000 over a five-year period on a rented farm, while providing for family living and reducing debt to \$35,000, is no small task. Yet that is what Eric and Amanda did. This past winter, they paid \$18,000 for a hoop shed that will provide enough housing to allow for 120 cows on this farm. We're not sure what arrangement will be made for this when the Gauls leave, but we'll figure that out when the time comes.

Granted, I did give them an annual rent subsidy of \$2,000 to \$3,000 compared to established fair market rates. (Their rent is going up this year.) But Eric provided sweat equity in helping modernize the farm. The Gauls also effectively gained \$1,000 to \$2,000 per year from a private financier who took a risk by allowing them to begin with limited equity.

But even discounting for the fairly modest financial breaks, Eric and Amanda still made great strides toward becoming what I call a "millionaire dairy producer."

They just needed a little help. Other young people need help, too. For the sake of the future of agriculture and the dairy industry, we need to encourage landlords and bankers to assist young producers in putting this

Gauls off to a profitable start

	2004	2005	2006	2007
Crop acres	70	70	70	70
Average no. cows	68	70	77	90
Lbs. milk sold (cwt.)	8,974	9,934	12,295	14,587
Milk price (per cwt.)	\$18.35	\$15.85	\$13.53	\$20.71
Milk sales	\$164,669	\$157,498	\$166,407	\$302,092
Total cash income	\$172,168	\$166,719	\$180,288	\$315,845
Veterinary, medicine	\$4,777	\$2,854	\$3,009	\$2,850
Feed purchased	\$47,057	\$58,645	\$70,394	\$130,849
Rent, lease and hire	\$16,864	\$15,906	\$14,409	\$17,485
Total cash expense	\$95,080	\$124,856	\$139,797	\$212,938
Net cash income	\$80,988	\$41,863	\$40,491	\$102,907
Net farm income	\$90,460	\$67,958	\$61,876	\$147,142
6% equity charge	\$7,081	\$3,880	\$11,196	\$13,063
Return to labor	\$83,379	\$64,078	\$55,570	\$134,080
Rate of return/assets	51.23%	27.45%	20.15%	38.43%
Net income per crop acre	\$1,237	\$971	\$884	\$2,102
Lbs. milk sold per cow	13,197	14,192	15,968	16,208
Lbs. milk per acre	12,820	14,192	17,564	20,838
Labor full time equivalents	0.80	0.80	1.00	1.00

Above are the results from the first four years of operation at the Eric and Amanda Gaul grazing dairy in southwestern Wisconsin, as analyzed by Dr. Larry Tranel's Dairy TRANS program. Despite renting the farm from Tranel, and thus gaining no land appreciation, the Gauls have accumulated \$300,000 in equity during this period.

model in place. What can we do as an industry to get young producers started?

The retiring generation is best able to help these people, and needs to take steps to do so. Imagine having two or three profitable young farm families in your neighborhood spending \$200,000 annually in the local economy. Imagine the economic multiplier provided to the community by this farming and the accompanying dairy processing. Would your local school district appreciate having a few more kids?

All of us in rural America have a vested interest in helping young dairy producers get started. The model I've just described is the best one I know.

Dr. Larry Tranel is an extension dairy field specialist with Iowa State University.

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The case for top-down product pricing

By Jim Munsch

Here's a good question for all of us who are in the business of selling our farm products directly to customers: "What should we charge?"

Based on what we've seen, there are a lot of very different answers to that question. At least once a year, we go through a cycle to update our beef prices, and part of that involves going shopping — or at least seeing what other people are asking for their meat at the retail level.

The first time we did this, I was surprised at the variability of prices: there was a 300% difference from bottom to top for comparable cuts. As you might guess, this spread can be found when high-volume/low-cost commodity beef sold in mega-stores is being compared to low-volume niche products offered in small specialty outlets.

Yet it's also true that price variations almost that great exist in the world of direct marketing. There is a huge spread between commodity or "natural" beef sold by the quarter or half, and uniquely raised beef marketed in cuts or bundles to people who are willing to pay high prices for these kinds of products. There are even pretty hefty price spreads between what appear to be fairly similar meat categories.

Figuring out how you fit into this variability can mean the difference between making money or not. Obviously, you have to sell at a price above your cost to be economically sustainable. But I challenge conventional wisdom by arguing that it's important to start by looking at retail price *first*, rather than price as a residual of production and marketing costs. You need to do this to ensure you establish prices in tune with the market you are pursuing. You need to establish the highest price that is fair to your farm, and to your customers.

By doing this first, and then comparing that price to your production and marketing costs, you can determine if there's a profit margin allowing sufficient returns on all the labor and capital devoted to beef production and sales.

If you can't make a decent return, you'll have to figure out how to get a higher price, sell more products, or else cut your costs, labor input or capital risk. If you can't make those changes, you should look at a different business if you want to consider beef anything more than a hobby. Unless you come close to figuring out "what the market will bear" for your meat, you will always be fighting an uphill battle to make direct meat sales a paying proposition.

Production and marketing costs are subjects for separate articles. Here, let's focus solely on pricing.

So how do you determine market price? The first step is to figure out what you're selling. "Beef" may be the obvious answer, but you're not selling just beef. You're also selling a whole basket of goods and services surrounding that beef. Let's use an example from the opposite end of the spectrum, Wal-Mart. They sell beef with these attributes: reasonably tender, fresh (not frozen), by-the-cut, grain-fed, USDA inspected, USDA graded, raised in the U.S. or imported, priced at the low end of the market. The services they provide are the farm-to-market logistics, some cooking and handling advice, and the convenience of being able to buy other food items at the same time.

That is Wal-Mart's basket of goods and services. The majority of beef-eating customers are perfectly happy with that basket and its price.

Most likely, that basket isn't for you. We direct marketers have to determine our own products and basket of goods and services, and match those with a set of customers who value that basket. We need to find and define a market niche.

There are now a huge number of labeled niches allowing or requiring various levels of grazing, grain, drug use, breed and animal husbandry. If you're confused about these, imagine your customer! You must remove your confusion, and then either find or create customers who are not confused, and are willing to pay a premium for the product.

Your basket of goods and services includes many valuable items that are

often major costs for which you must be paid. These fall into four categories:

- 1. Your farm management**, which includes integrity around production claims, consistency, natural resource conservation, animal welfare, certifications by third parties, food safety and ease of doing business with you.
- 2. Processing**, including humane handling, food safety, slaughter, USDA or state inspection, aging, cutting, packaging, freezing, consistency and labeling.
- 3. Logistics**: how the meat gets to the customer.
- 4. Intangibles**, centering on you as a person, your way of life, whether you're "local," support of local farmers, other food items they might buy from you, and help on meat preparation ideas.

People who value your unique approach to these things are your customers or potential customers. You need to figure out why they would (or do) buy from you, and what they are willing to pay.

A straightforward way to learn this is to simply ask them. Questionnaires, phone calls, talks at farmer's markets, speaking with anyone who has expressed an interest in your meat — all and more can work. We do this to learn pricing information and gain feedback on our offerings.

Our situation is a bit unusual in that all of our meat moves through a large organic vegetable CSA (community supported agriculture) run by our partners who actually handle the meat. The CSA members are frequently asked for feedback on the products they buy; they are accustomed to the dialog. Our surveys are therefore rich in communication.

We ask about the subjects in two ways: how important is a particular feature, and how do we measure up to expectations? The hot items are animal welfare, organic, taste, tenderness and knowing the farmers. Price, animal breeds, and feeding methods seem less important.

We do the survey after we set prices the first time each year just to judge what the regular meat buyers think about them. But *before* we set these prices, we've already done some investigating in the markets where our customers are located.

We look at the alternative buying opportunities for our target customers. Where else can they buy meat approximately like ours, and what would they pay? For us this means shopping in stores where our customers typically shop, looking at similar internet offerings they might see, and watching for brochures of farms we know have similar product, services and story. There's a lot of variability in this data, so we have to stand back and make sure we don't just try and match the lowest sellers out there.

An important step in making this alternative pricing exercise work is to compare the goods and services we offer compared to the alternatives, and what that means to price.

Our product is sold frozen and in bundles four times a year. Bundles make it easier to move all meat. The timing of the four selling dates fits our pasture growth. But we give a discount from retail offerings of similar meat because of this inflexibility. When we compare to internet prices there is a similar adjustment, as the offering of the internet seller may be different. Largely because of the CSA, we also use sales, marketing and logistics methods that are different from other sellers, so we need to account for those differences.

It is always easier to lower a price than to raise it. If we are offering a new product like a sausage or a different bundle, we try to be a little aggressive on price. If we get negative feedback across the board, we can always lower the price as long as we are still above our costs.

You also have to be careful with how and why you discount a price. The market has a memory, and if there isn't a good rationale for giving a discount, you shouldn't do it. The customer will want it every time, so the discounted price becomes your new regular price. The majority of your customers who paid the full price may be unhappy if they learn you sold at a discount to their

continued on page 20

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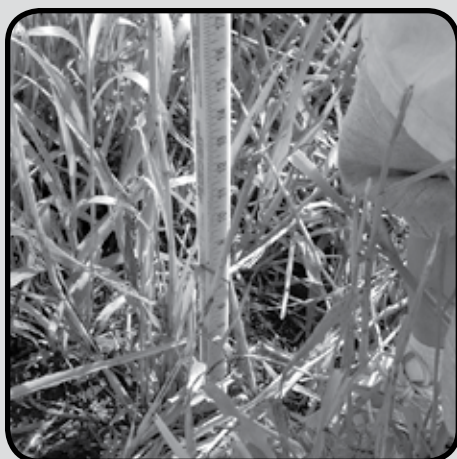
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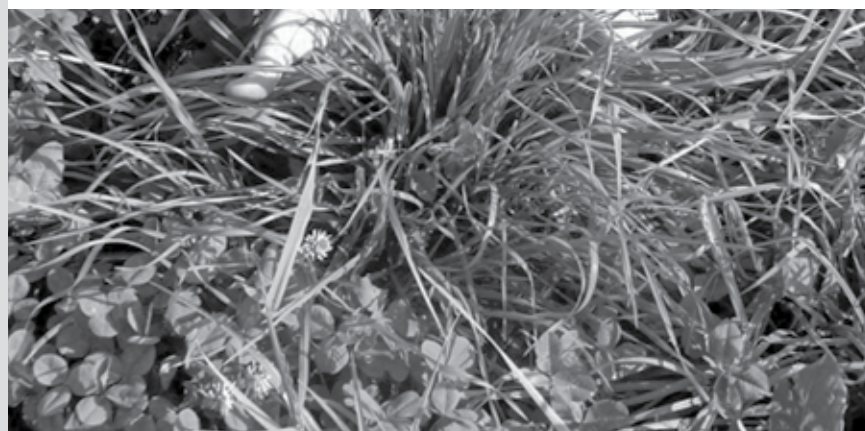
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Organic forum

Issues for graziers shipping to the organic milk market.

What’s your view of vaccination?

Rick Adamski

We use vaccinations, because we had several incidents where lack of vaccines caused problems and financial loss. We view appropriate vaccination as cheap insurance.

We had quit using vaccines for several years in the early 1990s. After we certified organic in 1993, we tried using some homeopathic nosodes for common winter diseases, but were not happy with the results. In the spring of 2005 several heifers lost their pregnancies at seven months. Tests confirmed that the last calf was aborted due to IBR. This incident drove us back to 9-way vaccination protocols.

Our seasonal calving herd gets a 9-way vaccine after they’ve dropped the calf, are milking well, and before they get bred back. We mainly want to improve resistance to Lepto. We believe this to be an important vaccine for pastured cows that could drink standing water with mosquito larvae. Every November we give another round of 9-way vaccine. The spring calves also get two shots of this vaccine in the fall on the advice of the manufacturer and our veterinarian.

Last year we gave a pinkeye vaccine to all calves before the fly season. That helped a lot compared to previous years. We are planning on vaccinating for pinkeye again, although the vets caution that some years we may get a strain of virus that isn’t covered in the vaccine, so it may not be effective.

In general we try not to over-vaccinate. We quit vaccinating young heifers for pneumonia. It seems like there are too many strains of critters that cause the pneumonia, so the vaccine is too hit-or-miss. We recently paged through a vet supply catalogue and saw 10 pages filled with many, many types of vaccines.

We thought we’d probably go broke (and the animals would look like pincushions) if we used them all.

So our strategy is to vaccinate just for things that are big threats. Of course, we also try to keep the animal’s immune functions strong so that she can fight off the occasional exposure.

We don’t give multiple shots in one day because we’re thinking we will confuse or mess up the immune system with sort of an information overload. This doesn’t jive with giving a 9-way shot, except that our vet says the 9-way is really five strains of Lepto and no more than two other gram-negative organisms. Apparently it’s the gram negatives that mess up the immune response.

We give all heifer calves “First Defense” before feeding them excellent colostrum (almost always within an hour of birth). This year we may try a bit of an experiment to keep costs down. We would like to compare vaccinating the dam with “4KC” vs. “J-Vac” (J-5), which can also give us some mastitis protection. Here are the options.

	Give to:	Protects against:	Cost/treatment:	Benefits:
4KC	Cow	Rota-corona, E. coli, Clostridia perfringens	\$6.86	Includes Cl. Perf.
J-Vac	Cow	E. Coli and salmonella	\$2.20	Cheap, mastitis help
Calf Guard	Calf	Rota-coronavirus	\$2.75	Cheap
First Defense	Calf	E. coli, coronavirus	\$6.00	Easy

If we use just J-Vac, the cost for vaccinating 90 cows at \$2.20 per head would total \$198, compared to \$210 for treating 35 heifer calves at \$6.00 apiece. It’s a wash cost-wise. The work involved with vaccinating 90 cows twice in a timely manner may be worth it if we see a great reduction in mastitis. On the other hand, if our calves need coronavirus protection via First Defense, and we lose a calf because I’ve switched to J-Vac, we will not be happy.

As with a lot of things in farming, vaccination protocol sometimes seems like more art than science. Our protocol is always evolving in response to costs, new products and more potent bugs. If we use a “best guess” to limit costs, we increase exposure and risk. Finding the balance point is the difference between success and failure.

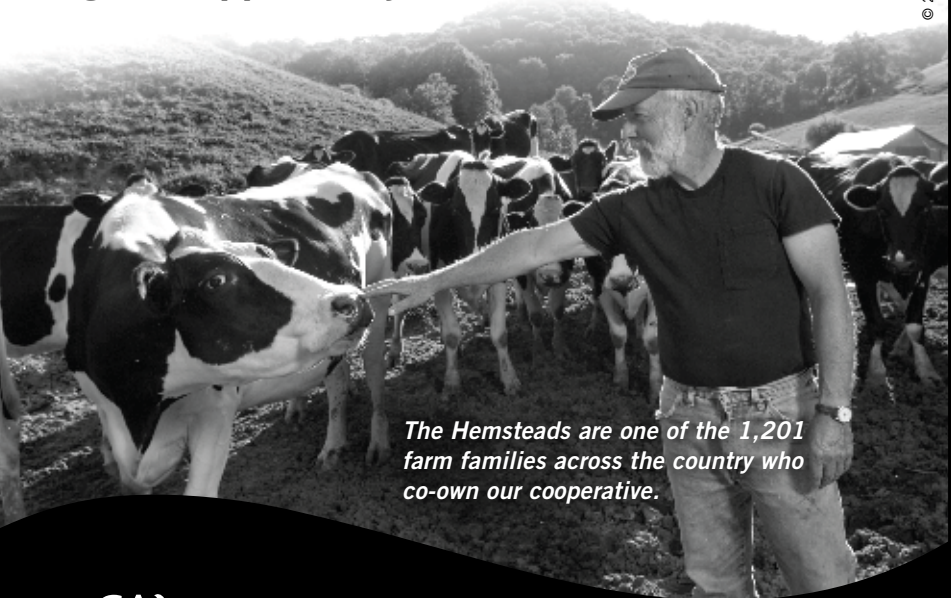
Rick Adamski milks cows near Seymour, Wisconsin. His wife, Valerie, contributed to this article.

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Pam Moore

We haven't vaccinated in years, because I found we don't need it for cattle to be healthy in our system. The more natural our approach becomes — maintaining a closed herd of cows that live outside, calve on green spring pastures, raise their own calves, and eat a diet of milk, grass, clover, herbs and forbs — the less we need to intervene.

The most important thing we do is to make sure every calf nurses and gets colostrum. The mother cow has been exposed to our farm environment her entire life. Living and feeding outdoors in the woods, pastures and hedgerows strengthens her immune system. Her antibodies are passed on to her calf within hours of birth, and for days thereafter.

Vaccinations can be an important preventative tool in an organic system as long as their ingredients and usage are in compliance with the organic standards. I've noticed that the longer a dairy has been organic, the less it tends to need vaccinations.

Pam Moore and her husband, Rob, milk cows near Nichols, New York.

Ernest Martin

We have not used any vaccines in about eight years.

Why? It starts with an experience we had a number of years ago when one of our children had a fairly moderate reaction to a vaccination. This lasted almost a week, and had us quite concerned. About the same time, we learned that a child of some relatives of friends in New York had suffered severe brain damage resulting from a vaccine reaction. After talking with a close grazing friend whose wife works in a hospital — a couple who don't vaccinate their children — we made the decision to discontinue vaccination.

I continued to vaccinate the cows for a while longer, but I started thinking. Why were the cows dropping in production every time we vaccinated? The shots seemed to stress them way too much. I attended a few meetings conducted by Dr. Paul Detloff, listened to his views against vaccination, and made the decision to discontinue it in my herd.

Since that time, a friend's herd suffered severe breathing problems that were traced back to a vaccination. The problem dragged out for over a year before it finally straightened out.

I believe that keeping a cow healthy in a low-stress environment boosts her immune system far more than any man-made vaccination program. We try to boost immune systems by feeding kelp at a fairly high rate (4-6 ounces/day, depending on the stress level) to the milking herd, and offering it free choice to the dry cows. This has seemed to work well for quite some time. While we do have the occasional spontaneous abortion, our rate is well within the national average.

A few weeks ago, the person who is raising our heifers asked about vaccinating a few of his own heifers that are mixed in with ours. I was a little concerned that this could have a crossover effect on my heifers if they weren't vaccinated at the same time. Dr. Detloff assured me that I need not have fear, and said he could almost guarantee that my animals would outperform their vaccinated herd mates because they were not being stressed by the vaccines. Unless something drastic happens, we will keep on not vaccinating.

Ernest Martin milks cows near Shiloh, Ohio.

Organic forum continued on page 16



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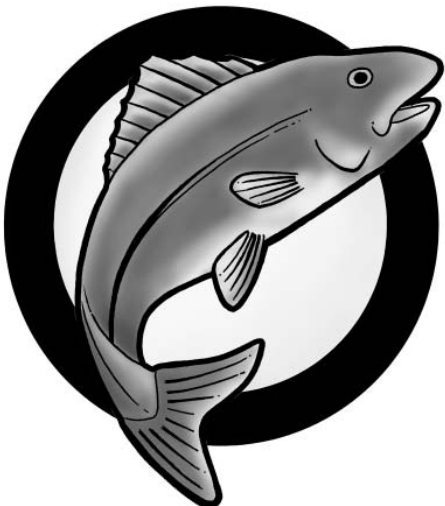
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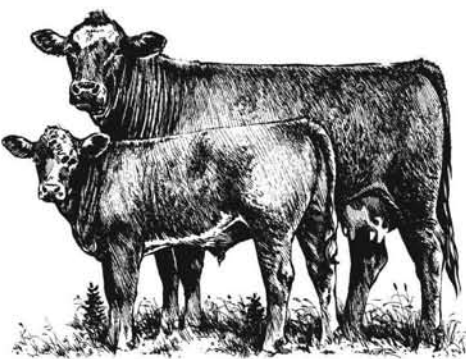

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Organic forum

continued from page 15

Forrest Stricker

Before we were organic we vaccinated for Lepto, IBR and BVD every year. The cows were stressed for high milk production and were susceptible to these common diseases. In 1996 we decided to go organic. During the transition time we started grazing, decreased the grain content in the diet and made free-choice minerals available. At that time we stopped vaccinating the herd, saw no noticeable herd health issues, and have not vaccinated since.

However, our three- to six-month old calves and breeding age heifers continued to have pinkeye problems. We tried a pinkeye vaccination a couple of years ago, injecting the vaccine in April before fly season according to the label. But the infections remained just as numerous, so we quit vaccinating.

We try our best to maintain healthy immune systems. We feed free-choice kelp that is high in natural iodine, which helps prevent pinkeye. Since we don't have many of the diseases that vaccinations prevent, and have had poor results with the pinkeye vaccine, we do not see a benefit to vaccinating the herd.

Forrest Stricker milks cows near Wernersville, Pennsylvania.

Kathie Arnold

We see vaccination as a tool to be used where needed. In the 28 years we have been operating, we have never done any vaccinating of youngstock other than when we vaccinated with “Lysigin” for Staph. aureus mastitis prevention for a few years. We didn’t see exceptional response to this, and it is a big job

shooting up heifers twice a year when they are in a non-confinement situation with no set-up in place for easily and safely giving shots.

We used to give “Triangle 9” to the milking herd every year. However, we seemed to almost always suffer a couple of abortions soon after. Once we were organic, we started reading about the stress put on cows by single vaccines for multiple disorders, and we began hearing about herds that have never vaccinated or hadn’t done it for years. So several years ago, we quit giving the annual Triangle 9 and have had no reason to regret that decision. We did vaccinate the herd for rabies for a few years when it was present in our area.

We do vaccinate for coliform mastitis. About seven years ago we started annually vaccinating with two shots of J-Vac (two weeks to a month apart) after we lost a batch of cows to coliform mastitis. The vaccine doesn't necessarily eliminate the possibility of cows coming down with coliform, but it does help reduce severity.

The program had been working relatively well until a few months ago: In January and February we had three cases of hot coliform, starting about 10 months after our last round of vaccination. That means it's time to re-evaluate and revise what we are doing. We just went through and gave the milking herd two more shots of J-Vac a month apart, but after our experience this year, apparently this is not enough to give us year-long protection.

Linda Tikofsky, veterinarian with Cornell's Quality Milk Program, suggests we start giving cows a shot of J-Vac at dry-off, and then a shot a week or so after freshening. She said that coliform tends to happen around 100 days in milk (our three hot cases were at 45, 76, and 105 days fresh) and is more common in high-producing cows. This new protocol will be added to our to-do list. Many conventional herds give one shot at dry-off and then another two weeks later, but with our dry cows either on pasture or in a free-roaming situation, that would not be practical for us.

Kathie Arnold milks cows near Truxton, New York.

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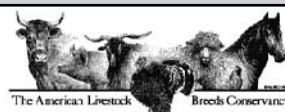


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No-grain dairy

continued from page 9

of milk averaging 4.9% butterfat and 3.7% protein in a 220- to 240-day lactation. Eighty to 90% of the feed comes from grazed grass, with no grain.

As was noted above, in New York we will graze two-thirds of the grass with our spring-calving herd, and harvest the rest. For our hypothetical farm we will have a 280-day lactation, or about 50 days longer than the NZ lactation. This will add 1,250 pounds of milk (5.0% butterfat, 3.7% protein) per cow, for a total of 8,800 lbs., at a cost of another 1,200 pounds of grass. (Some of this 1,200 lbs. of grass is providing additional energy for dealing with cold New York winters.) Thus, 10,000 lbs. of feed will produce 8,800 pounds of 5.0% butterfat, 3.7% protein milk.

A common misconception is that an all-grass cow will produce far less than a grain-fed cow, but still eat nearly as much. Based on NZ research and Voisin's work, a cow consuming 3% of her body weight in grazed grass will utilize a greater percentage of that forage compared to a cow consuming 4% of her body weight on a forage/grain diet, as the feed-intake-to-production ratio is more favorable for grass.

You might argue that the New Zealanders can do this because they are grazing mainly high-energy ryegrass. Here, I quote from *Milk Production from Pasture*:

"There are small differences between different grasses in their feeding values for milk production. For example, timothy is slightly better than ryegrass, which is slightly better than cocksfoot (orchardgrass). However, these differences between grasses are probably smaller than the changes in quality that can take place within one type of grass, due for example, to the presence of smaller or larger amounts of dead matter. Clover is usually of higher feeding value for milk production than any grasses."

This book also notes: "The use of new, improved varieties of pasture plants should theoretically increase the productivity of pastures, and this in turn should increase animal production. However there is no evidence yet that new improved pastures do actually result in much more milk production per hectare than good, old ryegrass pastures." (p. 46)

So there goes that excuse. Another thing to keep in mind is that the Kiwis rely fairly heavily upon synthetic nitrogen to push pasture yields to six to nine tons per acre. I am certain that such induced grass growth has a lower energy content than forages grown organically, or fertilized with composted manures.

Now we come to the stocking rate for this 100-acre farm. Assuming a 1,000-pound cow that will eat five tons of grass, this farm will feed 80 cows. But it will also have to feed the herd's 26 replacement heifers (13 per year) and four horses. This will divert 75 tons of forage away from the milking herd. That leaves 325 tons for the milking herd. At five tons per cow, we can thus feed 65 cows on this farm.

Those 65 cows are each producing 8,800 lbs. of milk, for a total output of 572,000 lbs. Figure a \$20/cwt. conventional price for milk with high components (calf and cull sales are included in that number), and we have a gross income of \$114,000.

Subtract the \$59,000 in costs (\$23,000 out-of-pocket, \$36,000 mortgage) outlined earlier, and you have \$55,400 available to cover family living expenses.

We haven't addressed the labor issue. Just think how simple and easy life would be without having to feed the cows except during winter. Bring them home, spend an hour in the parlor, and send them back out to pasture. Feeding grain takes a lot of time and energy. There are a lot of other issues here that are tough to quantify, such as the work required to clean the feeding area.

Another point is that a biodynamic farm lends itself well to additional income should the farm be multigenerational. The possibilities here are limited only by the imagination.

And finally, there is nothing but a vexing pile of paperwork and a thousand dollars of fees standing between this farm and certification for the organic market. With a \$5/cwt. organic premium, the net margin available for family living is \$83,000.

I know this sounds like a pie-in-the sky pipe dream. I cannot point to any farm making this system work, although a few are coming close. I think the main limiting factors are our own prejudices and mental biases that lead to a lack of confidence in grass and its productivity in ruminant agriculture.

For myself, I can see the production cost projections being met. The per-cow performance is not out of reach. The one unanswered question: Can we produce four tons of high-quality forage per acre with sunshine, rain and compost?

I rest my case.

Nathan and Kristine Weaver and their family milk cows near Canastota, New York.

I think the main limiting factors are our own prejudices and mental biases.

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2006 better for NE organic dairies, but costs are rising

By Bob Parsons

On average, organic dairies in Vermont and Maine were more profitable in 2006 compared to the previous two years. But just as the sector is beginning to show competitive profits, the situation has dramatically changed, as feed prices since October 2006 have skyrocketed, hitting the organic sector harder than conventional dairy farms.

Analysis indicates that for the average organic dairy farm to survive under today's feed and fuel prices, the base milk price needs to be nearly \$33 per cwt. And the milk price will likely need to go even higher, depending on the continuing inflationary pressure on feed, fuel, and other farm expenses.

In 2006, the average return on equity (ROE) for 41 northeast organic dairy farms was 4.3%, compared to a loss of 0.3% ROE in 2005 and negative 1.7% in 2004. This is after a charge of \$35,000 for unpaid owner/family labor.

Maine farms did better than those in Vermont. One reason is that the small sample of Maine farms (9) may represent a greater proportion of well-managed farms as compared to the greater number of Vermont farms (32). As a group, the Maine farms were more likely to be involved in cropping and eligible for government crop program payments. The \$22,000 difference in government payments per farm is related directly to the difference in net farm earnings.

The biggest cost difference between the two states was in purchased feed, with the Maine farms purchasing nearly \$29,000 more grain than the average Vermont farm. Overall, Maine farms' accrual production expenses were \$45,000 higher than Vermont farms, or about \$500 per cow (\$3,927 vs. \$3,472). The bottom line is that production expenses per cow are quite high for organic dairy farms.

Profitability for this study is calculated by taking cash income plus accrual income changes, and subtracting cash expenses and accrual expenses as depreciation and changes in accounts payable. We then subtracted \$35,000 family living to arrive at net farm earnings. Vermont organic dairy farms averaged \$23,200, while Maine farms averaged \$49,377 (including the \$22,000 difference in government payments). Net farm earnings were \$234 per cow for Vermont, while Maine

farms averaged \$793 (including \$494 in government payments).

The conclusion from this study is that 2006 was the first year that average organic dairy farms in the Northeast had income in excess of family living since 1999. But when we look at the farms by state, the more representative sample from Vermont indicated the organic dairy sector was healthy, but still not able to achieve a 5% ROE that makes it comparable to reasonable returns. So while the farms were doing better, it's not the avenue to get rich quick as perceived by some outside observers.

There was considerable variation between farms. Some farms are doing quite well, and some are not doing as well as desired. But 100% of the farms are satisfied or very satisfied with their decision to go organic. Many have indicated that they do not think they would be in business if they had stayed with

conventional production.

The problem with examining financial data is that both income and expenses change in a short time period. Beginning in October 2006, conventional corn began to climb in price due to ethanol production, exceeding \$4.00 by March 2007. Conventional commodity prices stabilized through 2007, only to take off again in late 2007 to levels of \$5 for corn, \$11 for soybeans, and wheat soaring over \$10 per bushel. Accordingly, organic prices also soared to unheard levels. To see how this would impact organic dairy farms, we ran a scenario where feed prices increased 40%, fuel prices by 25%, and other farm expenses increased by 4%. In this scenario we also assumed milk production per cow and cow numbers would remain the same. These are conservative estimates of the changes in expenses given the fact that the innovative Vermont dairy farmers would likely figure out some ways to reduce costs.

We estimated that Vermont organic dairy farms would see feed expenses increase by \$22,993, fuel expenses by \$1,889, and other expenses by \$5,218.

Net farm earnings would be reduced from \$23,200 to a loss of \$6,899. For the average Vermont organic dairy farm to achieve a 5% ROE, the milk price would have to increase nearly 15%, to \$32.96/cwt.

The analysis clearly shows that organic milk price must increase if the sector is to remain viable. From a social perspective, the organic dairy sector has become a haven for smaller, family-operated farms that could not or would not continue with the “get bigger or get out” scenario associated with surviving in conventional dairy production. But they have not escaped the situation where rising feed, fuel, and other expenses continue to chip away at their profitability, so that they are faced with the same scenario as their conventional neighbors.

The situation is quite simple. If family-run organic dairy farms are to survive, they need a higher payment for their milk, or else organic dairy farms will not be much different in size from their conventional neighbors. The organic sector has to come to grips with what they are selling to the consumer: organic milk at the lowest possible price, or a production system based on family-operated farms.

Bob Parsons is an extension associate professor with the University of Vermont. Also contributing to this project were Glenn Rogers, Dennis Kaupila, and Qingbin Wang from the University of Vermont; Lisa McCrory from NOFA-VT; and Rick Kersbergen and Tim Dalton from the University of Maine. Funding was provided by the USDA and the University of Vermont.

Some 2006 average income and expense numbers from New England organic dairies

Cows	62.7
Lbs. milk shipped	852,775
Milk/cow shipped	13,455
Milk price	\$28.84
Milk sales	\$245,350
Total cash receipts	\$282,531
Accrual revenue*	11,023
Total revenue	\$293,554
Purchased grain	\$63,861
Purchased forage	\$8,458
Interest	\$10,947
Labor	\$26,770
Repairs	\$16,366
Total cash expenses	\$203,928
Accrual expenses*	\$25,680
Total farm expenses	\$229,608
Net cash farm income	\$78,603
Net farm revenue	\$63,946
Return on assets	4.9%

* Accrual revenue includes inventory and accounts receivable changes. Accrual expenses include depreciation, accounts payable and pre-paid expenses.

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Conversations with the land

Being a patriot to your local community

By Jim Van Der Pol

The powerful national, and increasingly international, economy is pretty good at posing as your friend. They work at it. Wal-Mart has your neighbor's 80-year old father saying hello and pushing a cart into your hands as you walk through the door. Monsanto commiserates with you as "dumb" urbanites and consumers criticize your use of "Posilac" and "Roundup Ready." The tractor company thinks your life ought to be made easier by purchase of their product, and the computer industry shakes its electronic head and clucks sympathetically over the idea of anyone getting dirt under their fingernails.

Everyone hails you as "salt of the earth" and "the original environmentalist" while helping themselves to the lion's share of your profits. Meanwhile, you drive further for parts, for supplies and food, for school for the kids. We are living the modern rural version of an old philosophical chestnut about the falling tree in the forest. If a barn burns and no one is there to see it go, does it really burn?

This whole argument is going to lead to the drawing of some lines. There will be aspects of our lives where it is pretty hard to do that, where we are going to fall on opposite sides of a decision from each other. But there are some easy areas. We have evolved to the point where we no longer stoop to pick up a penny, but think nothing of driving 20 miles to save a nickel.

We need to question that tendency, which I found in full display at the farm/fleet store where I asked for Epsom salts, having a calf that needed its foot soaked. This store is part of a small upper midwestern chain where I have gotten pretty used to shopping. These stores tend to close when a Wal-Mart, Home Depot or Lowe's move into town.

The fellow I asked about the Epsom salts said he didn't have any, and suggested I run down to the Wal-Mart about a mile distant where I could get a four-pound box "real cheap." I said we would pick it up instead at the grocery store next door where we were headed anyhow. He said they probably had it, but warned I would pay more. I bought the box in the grocery store for \$2.39.

Someone needs his head examined in this story, and it is not me. The idea of doing business with friends has some very difficult aspects, but this is easy stuff. At a minimum we need to get these things right.

We need to internalize a set of sorting questions that we run through mentally as we do our business. These questions have to do with who benefits from the transaction, how much of the benefit is local, and how much undesirable stuff (ecological, social, agricultural) cannot be separated from the thing being purchased.

For instance, one of my own sorting questions has to do with whether I want my money to be making dreams come true in Arkansas or New Jersey or Saudi Arabia or Texas. The answer is "no, I do not," but that doesn't mean I don't buy petroleum or too much cheap Chinese imports or insurance. What my voice accomplishes by inserting that question into my brain like a lush bull thistle each time I buy one of these things is to make me edgy and uneasy about the decision. This uneasiness is going to keep me looking for alternatives, and will predispose me to seeing alternatives when they show up, as well as creating a few myself.



I am a patriot of western Minnesota. These prairies where I have spent my life and done my work are the landscape that is for me both home and homeland.

I realize I have used several words here that are conventionally loaded with sentiment and violence, so let me be clear. I think one can only be patriotic toward that part of Creation he is familiar with and in which he has made himself at home. It is just this being at home that enables anyone to assume that others might feel the same way toward their homes. And, in a similar vein, patriotism toward the nation can only be built on the patriotism felt for the part of it that is right outside each of our doors. We cannot care for our nation without caring for our part of it.

Thus it makes a difference where the goods and services come from, for each of us. I can sit here in Chinese jeans typing on a computer made in Taiwan, invented in California and transported with fuel pumped from the ground in Texas or the United Arab Emirates, because our national economy has set it up that way. That economy has done so as a method of collecting maximum wealth into as few pockets as possible.

But the other economy, the one right outside my door, suffers and dies for lack of useful and meaningful work to do. As long as this is so, it is a marker for what we have yet to learn, and the size of the changes yet to be made.

Many of the harder decisions have to do with technology because we are so accustomed to it, and because so much of it is imported from outside our neighborhoods. I have been on a number of grazing farms and I hope to visit many more, and what strikes me always is that the farms can be quite different, but the impulse is the same. That impulse is to make a living out of not fighting nature as much.

Some farms have most of the latest technology, particularly in the animal handling and service areas, and some are old-fashioned to the point of being operated mostly by hand. These, of course, require less in the way of size or gross income. I will not speak against technology, but I will say this: Rural areas have suffered from technology's tendency to replace humans for the last half century, at least.

I think one question of technology needs to be about what we plan to do with the labor that the technology replaces. This is the Japanese style of thought. What can we do with people who have been replaced by technology that will result in more economic power being retained by our local economies, rather than less?

This question, should we be able to sort out some positive answers to it, holds more promise for our rural places than any of the national economy's bill of goods.

Jim Van Der Pol grazes and direct-markets pork, chicken and beef from his farm near Kerkhoven, Minnesota.

Top-down pricing

continued from page 13

neighbor without a good rationale. Sometimes it's better to make the discounted sale to a family member or friend in another state, or to think of that local food pantry.

You might think this market approach to setting price is tough, but it's worth the effort — especially when you're starting out. The alternative is to start out with some idea of production costs, and add what you consider a fair markup. But most people don't know their production costs, and production costs are unrelated to where the prices for meat are being determined every day, which is the point where a customer buys meat.

In other words, the market. If you don't use the market-based pricing approach, eventually you are likely to get to the point where you're obtaining a fair price for your products. But you will usually under-price along the way.

Jim Munsch grazes organic-certified beef cattle near Coon Valley, Wisc.

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