

Plain Dirt Financing

Financial Information for Amish Farmers
August 2008

What Happened to Feed Costs?

By Dave Stutzman

As many of you know your cost of feed, the major cost of milk production has risen substantially over the past year. Grain and oilseed commodity prices have more than doubled in just the past two years. Why has this happened?

As Pennsylvania dairy farmers, we now operate in a world economy. What is happening in China, India, Europe, South America, down under (Australia) and other places around the world now more than ever will directly affect the profitability of your farm operation.

Many factors have come together in a “perfect storm” to contribute toward the recent run up in grain commodity prices, including:

Factors reducing the supply of grains and oilseeds -

1. Drought in the major wheat growing country, Australia and adverse weather in some other major grain/oil seed production areas of the world.
2. Global use of corn and oilseeds for bio-fuels, due to a major global increase in energy costs
3. Trends of slower growth in grain and oil seed production, due to among other factors a reduction in Ag research, limited water supplies in certain areas of world and conversion of Ag land to other uses
4. Increased cost of production – input costs including energy
5. Changes in agricultural policies in developed countries that have reduced subsidies previously used to encourage production (mostly in Europe)

Factors increasing the demand for grains and oilseeds -

1. The value of the US currency (dollar) versus foreign currencies has seen a significant decline over the past years. This has caused the products we sell overseas (exports) to be much cheaper for foreign buyers resulting in increased export demand and less domestic supply available.
2. Use of corn and oilseeds for bio-fuels.
3. Increase in demand for higher protein diets in China, India and other countries due to their expanding economies and higher per capita income. There has been exceptionally strong economic growth in China and India over past decade. These two countries alone represent nearly 40% of the world’s population.

As a result of these factors, global consumption of aggregate grains and oilseeds has exceeded production in 7 of the 8 years since year 2000. Since 1999, the stocks (global inventory) to use ratio has declined from 30% to the current ratio of 15% - the lowest level on record since 1970.

Economics 101 says that when you have too much demand chasing to little supply you have increased prices. The same concept applies at the hay auction when you have too many buyers chasing after a limited supply of high quality hay, you have high prices.

On most dairy operations, the input cost that has the highest impact on profitability is feed. Feed cost includes the costs to raise any crops you use to feed your dairy livestock whether it is grazed or harvested forages, corn harvested for grain and/or silage as well as all purchased feeds. With feed being the highest cost input in your dairy operation, the “income over feed cost” (IOFC) ratio is an important measure of how profitable your dairy is throughout the year and also dictates how well your cash flow is holding out.



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Credit Cards – Benefit or Temptation?

By John Mylin

Several years ago an article appeared in this newsletter titled “Debt – Who Needs It?” In that article we discussed two extremes: Too much fear of debt and little or no fear of debt. The article focused on the pitfalls of both extremes and concluded that by cautiously using debt most businesses will profit and prosper. A healthy respect for, and wise use of debt is the key.

One type of debt that has become more common among our customers is balances on credit cards. More than most sources of credit, credit cards require wisdom and discipline in how they are used. Because credit cards are simple to obtain and use – it is easy not to even think of credit card balances as debt. If your mailbox is like mine, there is hardly a week goes by without an offer from a company – I know nothing about – wanting me to apply for their credit card. Make no mistake, credit card companies are in business to make a profit. They wouldn’t spend billions keeping the mailman busy if they were loosing money doing so.

Some interesting facts on use of credit cards:

- Credit card companies spent 6 billion on mailings to US households in 2005. This comes to around 20 mailings for every household in the US
- Credit card companies made 43 billion in fees in 2005
- The average American has 4 credit cards
- The average household owes between \$8,000 and \$9,000 on credit cards
- The average interest rate on credit cards is 18.9%
- About 60% of credit cards are not paid in full each month
- A typical credit card purchase ends up costing 112% more than if cash were used

I recently talked with a young couple who had just completed construction on a new home on a lot they had purchased from their parents. When they began to build the house, costs for materials and labor were paid using credit cards. They had quite a few credit cards on which they had used the full amount available. The husband was very confident that he had made a good decision as he declared “the credit cards are all at zero percent interest.” Since I’ve never had a zero percent credit card I’m by no means an expert, however experience has proven to me that if it sounds too good to be true it likely is. I suspect that one minor slip up would end the zero percent interest and maybe even result in sizable fees. I had my doubts that this couple was using all these credit cards at no cost.

The reason I had met with this couple was to refinance all the credit cards that were used for construction. I discovered that their loan request had been rejected by at least two other lenders. Farm Credit was also unable to help them. The problem was the misuse of credit cards for a long term purpose (house construction). The decision to use credit cards for this purpose reflected poorly on their judgment ability. Having numerous credit cards fully drawn negatively impacted their credit score. They eventually were able to borrow from a family member to pay credit cards. In the future they plan to obtain a long-term loan and repay debt to family member.

Many years ago I met with an older gentleman who I would describe as someone who had too much fear of debt. He had co-signed for his son to begin farming. Later it became clear that a revolving credit line would help the son better manage his finances. The father was again asked to cosign and he refused. It wasn’t that the son was struggling; the father simply didn’t want his son faced with the temptation of misusing a credit line.

Freedom to use sources of revolving credit such as a credit line or credit card does comes with the responsibility to be disciplined and use in a wise manner. When used cautiously, revolving sources of credit can assist in managing your finances and strengthen your credit reputation. When using a credit line, be careful to use it for purchases that you can pay off in relatively short time. When using a credit card, pay the entire balance each month without fail.

I’m sure some who read this are of the opinion that use of credit cards should be avoided. I view credit card much the same way as credit lines. Both can be used in a beneficial way and both have the temptation of misuse. A healthy respect for and wise use of both is the key.



Penn State calculates IOFC as follows: Take the daily bulk tank average production per cow times the current milk price per lb. to get your *daily milk income per cow*. Then subtract the *Feed cost per cow per day*. It is important that you only include the feed costs for milking cows. The *feed cost per cow per day* needs to include all purchased feeds as well as the value of raised grains and forages.

Per Penn State calculations, the average IOFC for Pennsylvania dairy operations as of August 2007 was \$11.40 per cwt. In other words, for each 100 lbs of milk produced and sold on an average PA dairy farm, \$11.40 per cwt was available for all other non-feed farm expenses, living costs, debt service and net profit. Since the mailbox milk price per cwt in August 2007 was \$23, the difference between the \$23 per cwt milk price and the \$11.40 IOFC is \$11.60 representing your feed cost per cwt of milk produced.

The IOFC as calculated for May 2008 for an average PA dairy farm has fallen to \$6.87. The reduction to \$6.87 is a result of increased feed costs to \$12.13 per cwt produced and a decrease in the mailbox milk price per cwt to \$19.00.

So what can an average PA dairy farmer do to survive and prosper in an industry where the producer is subject to major factors outside of your control such as the market price of milk and the cost of purchased and raised feed? In general, the two factors making up this crucial measure of “Income Over Feed costs” is *income and feed costs*. Therefore we can only work with what we have control over and that is production per cow (or per acre) and the cost of feed per cwt of milk produced on your farm! Some thoughts and ideas to this end:

1. Increase daily per cow production through both, non-feed management changes and feed management changes. Non-feed management changes could include: enhancing cow comfort (ventilation, mattresses, etc); somatic cell count control, herd health, reducing days in milk by increasing calving intervals, better reproduction performance, etc. Sometimes feed management changes that add to feed costs can increase IOFC. As mentioned above, Penn State calculated the May 2008 IOFC at \$6.87. The average per cow milk production for PA is 65 lbs per cow per day, however a dairy I was recently on that was producing 85 lbs per cow per day had an IOFC of \$10.12. This illustrates how an increase in production per cow from above average management can increase Income over Feed Cost (IOFC) profitability.
2. Reduce overall feed costs with lower cost sources or methods of producing feeds:
 - Some have done this successfully with different forms of grazing. However, we have seen for a grazing operation even higher levels of management are necessary for a successful operation.
 - According to Mike Sensenig of Sensenig Feeds, they have been successful in using “wet brewers grains” in dairy feed rations. There has been a good local supply to date at a cost of mid \$40 per ton. Protein levels of 28-30% compares to corn silage protein of 8%. Mike has also been successful in substituting wheat midds and/or soy-hulls as a lower cost ingredient in rations, if there is enough starch in the ration. A side benefit often has been increased butterfat.
 - Check with your feed supplier and/or nutritionist for ideas on reducing costs through ration changes or substitutions with lower cost ingredients.
3. Increase the mailbox price per cwt received by receiving bonuses for higher milk quality, increased components and butter fat, etc.

Hopefully this gives you some increased perspective on factors outside your control that are affecting your daily cash flow and profitability and give you some ideas to address the factors that we do have control over.

Dates of Interest

August 19-21—Ag Progress Days, Rock Springs PA

October 7—Wenger’s Feed Prospect Meeting, Yoder’s Restaurant, New Holland PA*

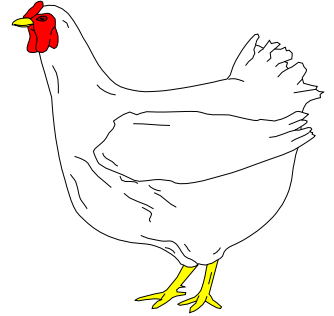
October 14—Wenger’s Feed Prospect Meeting, MAFC office, Shoemakersville PA*

*Registration required. Watch for more information in *Lancaster Farming* and *Farmshine*.

Contracting Animal Production...Is It For Me?

By Eric Miller, Wenger Feeds

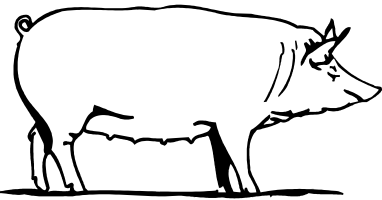
Contracting animal production is certainly nothing new for many Pennsylvania farmers. As you travel through Lancaster County, you're certain to see various broiler, hog finishing, or layer barns dotting the landscape. Have you ever wondered about constructing your own barn or learning about contracting? There are many benefits to contracting animal production, but the decision has to fit your expectations, meet your desires and be compatible with the available resources you have.



The basic concept of contracting animal production is growing or maintaining animals for someone else. There are two components of the input equation to make this happen. In most cases, you would be responsible for providing the land, building, insurance on the building, labor and certain utilities like electricity and water. Utilities like propane for heating the house are sometimes included in the contract, but this varies. The contractor would be responsible for providing the animals, animal transportation, and insurance on the animals, feed, medicine, and a regular visit from a service person to check on the animals. Details can vary between contracts, but these components of the input equation remain fairly consistent.

Next you'll want to consider the risks and rewards of entering into a contract. The obvious reward is the opportunity to create a profitable business. Contracts provide a very consistent and predictable cash flow that other agricultural ventures may not achieve. If you are already involved with agriculture, this could be a method to diversify your income. Many dairy operations find that a contracted broiler or hog finishing barn complements their current business quite well. Another common reason to build a barn is to provide an avenue for the next generation to stay on the farm. Finally, you are helping to feed the world and should feel a level of satisfaction in your operation.

The risks involved are not always as obvious. Growing up on a dairy farm, I know the daily work that was required to keep "the girls" happy 365 days a year. That's not to say vacation time is impossible, but a strong daily commitment is required to keep your animals healthy and productive. Like any profession, if you don't love what you do, it can become a burden instead of a blessing. There is also a financial risk involved. This varies by species, barn size, and type of equipment and construction used. You need to make sure you're contracting with a reputable company because in the end, they are helping to pay your mortgage. A final risk is more of an opportunity cost. When markets are extremely good, you are "losing" possible income by being contracted versus independently marketing your product. But remember, while opportunity cost exists, you are gaining the safety net of a reliable contract income when the markets are low.



There are several other factors that will help you decide if contracting is for you. Depending on the species, a certain amount of land will be required for nutrient management. You don't necessarily have to own these acres, but you will need access to this amount of land to spread manure on. Some individuals can easily find neighboring farms that will take the manure or traveling a further distance may be necessary. Local township ordinances will dictate building setbacks from property lines, storm water plans, and building permits. If there is a lot of residential housing surrounding your proposed site, there could be opposition to your project. If you have another site to build on, you may want to consider it instead.

If after reading this you'd like more information, there is a vast network of help available to you. A good place to start is with a contractor who represents the species of your interest. If you don't know how to reach a particular contractor directly, your banker or feed company will likely be able to answer some of your questions and provide contact information. Of course, you can always call Wenger Feeds and we can advise which options may work best for you.

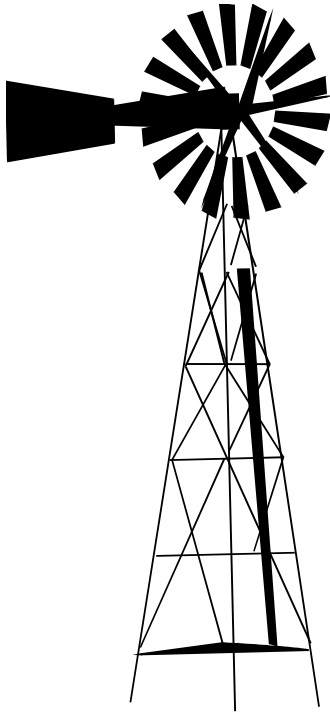
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What Goes Around Comes Around

By Hakim Singleton, MAFC Intern & student at Delaware Valley College

I wonder how many of our readers have ever drifted off to sleep on a summer night listening to the rhythmic sounds of a windmill at work. The windmill has long been a part of the landscape in Lancaster County and rural areas throughout America.

Many of us remember the past when you could walk outside of your home and see a windmill and think nothing of it. Take a second and think back to when the old style windmills were a common sight in the farm communities of Lancaster County. Now after you've thought about it you probably are thinking 'whatever happened to those things'. Well they are making a come back just in the nick of time to help us all combat the rising cost of energy.



A windmill is a machine that is powered by the energy of the wind. Windmills were designed to convert the energy of the wind into useful forms of energy using rotating blades or sails. The first form of the windmill was found in the ninth century in what was then Persia, and now would be considered the Middle East. The windmills that you and I use today (Horizontal Axle) were invented in Northwestern Europe in the 1180's. The first windmills had long vertical shafts with rectangle shaped blades. A similar type of vertical shaft windmill with rectangle blades, which were used for irrigation, could also be found in 13th century China.

For centuries windmills were the primary power source to draw ground water to the surface. This water was then used for domestic, farm, and industrial purposes. Windmills were also extensively used as a power source for feed and floor mills if there was no water supply nearby. Chances are that your father, grandfather, and great grandfather probably had a windmill as a power source. I know some continue to use windmills to pump water to this day.

Harnessing the power of the wind has again become popular to generate electricity as the costs of traditional sources of energy have soared. Certain areas of the country are much more desirable for windmills due to dependable source of wind. Most modern windmills have three blades, and operate facing into the wind. The tall towers reach for constant, strong airflow. The wind turns the blades, which then spins a shaft, which connects to a generator and makes electricity. The blades are controlled so they always spin at the same rate.

Some interesting facts about modern windmills:

- Total U.S. wind capacity is currently 16,818 megawatts, or enough to provide electricity for over 4.5 million average households.
- The top five states producing electricity from wind are; Texas, California, Minnesota, Iowa, Washington, and Colorado
- Worldwide wind power is generating 94,000 megawatts
- Denmark, Spain, and Germany generate 10% - 25% of electricity from wind
- A single wind turbine generating 1 megawatt of electricity will supply 250 – 300 homes.
- The largest wind turbines produce 5 megawatts
- Rotor diameters range from 150 ft to 400 ft with tower heights of up to 450 ft.
- A single wind turbine generating 1 megawatt over a 20 year period would require burning 29,000 tons of coal to produce the same amount of energy
- To replace the current level of U.S. wind generated electricity would require burning 23 million tons of coal or 75 million barrels of oil each year.

Facts such as those above may be interesting, but what are the practical applications for those of us who may have difficulty getting zoning approval for 450 ft tall wind tower? There is a new line of much smaller windmills that can be used to power a single home; they are usually about seven feet to twenty five feet in diameter and some units are as light as 35 pounds, and are very easy to set. They are especially quiet, so quiet that they can't be heard from as close as three feet under the turbine. There is a braking system that regulates the speed by dumping excess energy, so that the turbine continues to produce energy even in high winds. A small windmill can be installed on a roof. Installation issues include the strength of the roof, vibration, and the turbulence caused by the slope of the roof. Small scale rooftop windmills have been known to be able to generate power from 10% up 25% of the electricity required of a regular domestic household dwelling. Small wind turbines often have direct drive generators, direct current output, blades, lifetime bearings and use a vane to point into the wind.



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Larger more costly ones generally have geared power trains, alternating current output flaps, and are actively pointed into the wind.

According to Matthew Smucker of *Smucker Sales and Service*, a smaller windmill has been developed to better suit and service your needs, they can power light bulbs, recharge batteries, and provide the energy needed to keep your self in business and help keep you comfortable. The US manufacturer, *Southwest Windpower*, estimates a windmill to pay for itself in energy savings in 5 to 10 years.

Other alternative sources of energy include: solar energy, and a combination of solar and wind. Solar energy is also becoming more popular as the cost of energy rises. The Solar and wind combination helps keep your energy at maximum levels when in the winter the sun sets earlier. It helps keep your batteries charged and is approximately 40% more efficient than just solar energy alone. Solar energy has also been used to heat water; recently a solar hot water heat has been created. It helps eliminate use of gas completely to keep your water warm for your personal needs.

These energy alternatives can be your guide to keeping more money in your pocket and less of it spent on coal, diesel, and propane. While traditional windmills may be disappearing, higher energy costs will keep us all alert for alternative sources of lower cost energy. If wind and solar power take hold we may find ourselves hoping for windy days with a lot of sunshine!

