



TOM LINE



The PDPF recently got a \$12,500 boost for dairy education programs. Page 4



Make sure your breedingage heifers are on schedule with vaccinations. Page 8



Take the every day risk of exposure to the elements seriously. Protect your skin and hearing. Page 14

Sharing ideas, solutions, resources and experiences that help dairy producers succeed.

Correct Storage Vital For Dairy Cattle Vaccines

In a way, dairy cattle vaccines are like milk: They don't keep forever, and they certainly won't retain their effectiveness if they're not stored properly.

"Most vaccines should be stored at 35 to 45 degrees Fahrenheit." notes John Maas. an Extension veterinarian at the University of California-Davis.

How do you know the correct storage temperature for a particular vaccine? Maas says it's as simple as taking the time to read the label.

"Vaccines should be stored at the recommended temperatures from the time they're manufactured until the time you use them," Maas states. "Overheating vaccines can cause problems, because the proteins in them will break down and not produce the desired immune response."

Letting a vaccine become too cold is another mistake.

"Worse than overheating, freezing vaccines will decrease their effectiveness even faster," Maas warns.

He explains that 35 degrees on the low side and 45 degrees on the high side is a "strict range." And that temperature range applies to both killed vaccines and modified-live



ones.

"Almost all killed vaccines contain an adjuvant that aids in the immune response, as do some live vaccines," Maas says. "High or low storage temperatures cause these mixtures to separate and lose their effectiveness."

GOOD REFRIGERATOR

An important "tool" for storing vaccines within the accepted temperature range is a good refrigerator. While a fridge for vaccines need not be new, it should not be an appliance that's just one step away from being recycled.

"It turns out that many of the refrigerators we use for storing cattle vaccines and drugs are cast-offs from some other use and may not be functioning properly," Maas says. "A survey at the University of Nevada-Reno found that 25 percent of ... refrigerators failed to maintain

temperatures to keep vaccines in the safe range, and most of the failures had to do with freezing the vaccines."

Maas adds that the insides of some of these refrigerators were as cold as 10 degrees Fahrenheit, and they stayed at that coldness for extended periods of time.

"Many of the old refrigerators tend to freeze items stored in the back, near the coils, and overheat items stored near the front or in the door because the rubber seals no longer work," the veterinarian says.

BUY A THERMOMETER

Figuring out whether or not the refrigerator you use for storing vaccines is within the proper temperature range is as easy as buying a thermometer that records minimum and

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This Professional Dairy Producer Always Looking to Improve

Tony Brey is a young, progressive dairy producer and partner in Cycle Farm Registered Holsteins, located in Sturgeon Bay, Wis. He and his parents, Bill and Clarice Brey, own 250 registered Holsteins and 200 heifers, and have an RHA of 23,000 milking twice per day. They crop 700 acres of corn, alfalfa and wheat.

In addition to the day-to-day dairying, Tony also focuses on the herd's genetics. The herd had a breed age average (BAA) of 107.6 last year, which ranked Cycle Farm first in the nation for its herd size.

"Genetics is a strength of ours," Tony says.

The Breys breed the majority of their cows using an Ovsynch protocol with either sexed semen or embryos in their heifers. All of the cows are registered, giving Cycle Farm additional income selling embryos and cattle.

The herd is housed in a freestall barn with sand bedding. Cows are milked in a swing 8 parallel parlor that was retrofitted into the existing tiestall barn when Tony left for college in 2003.

Tony returned to the farm in 2007 after graduating with a degree in dairy science from University of Wisconsin– Madison, which is also where he met his wife, Moriah. A former PDPW college intern, Moriah works off the farm as a credit analyst for GreenStone Farm Credit Services.

Tony's younger brother, Jacob, attends UW-Madison and may one day enter the family business.

The thought of an enduring family farm is one reason Tony said he attended the 2010 PDPW Business Conference, adding that he was particularly interested in hearing a presentation planning for future generations.

"The speaker provided a lot of useful information, such as how family members on a family-run operation can work together most efficiently," he said. As a professional producer, Tony added that he is keen on continuing education and is grateful for the educational opportunities provided by PDPW. "I like the networking

opportunities during the Business Conference. I visit with other dairy producers, and we exchange ideas on the things we're doing, like modernizing the dairy," Tony said. He said he also appreciates the opportunity to meet with industry suppliers and discover what's new in reproduction techniques as well as see what new products might be good for the farm.

Tony attends PDPW's educational programs throughout the year.

"PDPW brings in the best people from around the country to teach on relevant topics. And because it's producer-driven, we get great ideas for content. I like that the people behind the organization are doing the same things that I'm doing every day," he said.

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Cycle Farm Registered Holsteins partners: Tony Brey, far right, stands next to his wife, Moriah, followed by his brother, Jacob, and parents, Bill and Clarice Brey.

Learning to Better Manage Price Risk and Opportunity

In his opening remarks at the PDPW Business Conference, Dr. David Kohl remarked that there is more opportunity for dairy producers in the next 10 years than there has been in the last 30. Adding that there also will be more risk than ever before, Dr. Kohl cited the need for dairy producers to protect risk and manage opportunity three dimensionally: on the milk side, the feed side and the financing side.

Commodity marketing is a whole new management area and a whole new layer of decision-making for most dairy producers.

As we talk with producers about commodity marketing, there's a recognition of the need to engage but still confusion about how to do it well. In fact, a recent Dairyline poll indicated that respondents, by a 2:1 margin, reject the use of dairy options and futures trading.

Why the reluctance? And how can producers meet this new management challenge head on?

Here are three possible reasons for producers' hesitancy, and our coaching to help you get engaged:

Reason 1: Lack of understanding/knowledge of how marketing tools work. Better to do nothing than to do it wrong.

Our response: It's time to bite the bullet and learn. We agree with Dr. Kohl that volatility will bring unprecedented risks and opportunities. Volatility will largely stem from factors that impact milk prices—energy and feed.

We're seeing more investment dollars flowing into these



Matt Mattke Stewart-Peterson, Inc.

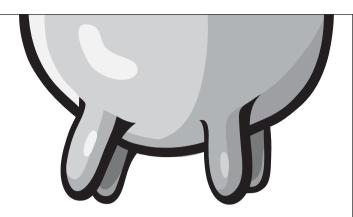
markets, increasing producers' cost structure. The highs will get higher for milk, but we can still fall back to the same lows, despite a higher cost structure. Producers will need to be able to weather through these lows. There are ways to do it, using tools that help minimize loss in bear markets and maximize opportunity in bull markets. Knowing how and when to apply these tools takes knowledge that can be obtained from experience or from a professional advisor.

Reason 2: Bad past experiences. Perhaps you locked in milk before a market climb without reownership. Now you're afraid to lock in a price because you might miss out on possible opportunity.

Our response: Learn from mistakes. Don't give up. Once you learn how the tools work, you'll see that there are a variety of strategies that allow you flexibility, so you can lock in prices to minimize losses, but maintain flexibility if prices go to profitable levels.

The philosophy we always

See Opportunity on page 8



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Live, Silent Auctions Raise Funds For Dairy Education Programs

The Professional Dairy Producers Foundation, which raises funds and awards grants for educational programs and initiatives, got a \$12,150 boost for its dairy education programs thanks to seven items auctioned off live at the Professional Dairy Producers of Wisconsin Business Conference March 16 in Madison. The organization's Silent Auction raised an additional \$14,500 toward dairy education. That's a total of \$26.650 raised to help fund programs such as the Professional Dairy Producers of Wisconsin's Youth Leadership Derby, mentor program and community education about dairving.

Topping the live auction at \$3,700 was an elite genetics Holstein calf, Jenny-Lou Million 2069, purchased by Ripp's Dairy Valley LLC of Dane, Wis. This young calf was donated by the Mitch Breunig family of Mystic Valley Dairy. Other live auction items included:

• A GEA WestfaliaSurge Rotating Cow Brush that saw the gavel fall at \$2,200 and was purchased by Warmka Holsteins of Fox Lake, Wis.

• 100 units of Semex semen with a tank, donated by Semex and AI24, that sold for \$2,100 to Merry-Water Farms, Inc. of Lake Geneva, Wis.

• A Wisconsin Golf Package featuring gift certificates to five of Wisconsin's premier golf courses auctioned off for \$1,800 to Dic-Wisco Farms, Inc. of Dorchester, Wis. The package was donated by the five participating courses, plus AgStar, Stewart-Peterson and Diamond V Mills.

• A Door County Walleye Trip donated by ANIMART that sold for \$1,000 to Maple Ridge Dairy, Stratford, Wis.





Ripp's Dairy Valley LLC of Dane, Wis., purchased an elite genetics Holstein calf donated by the Breunig Family of Mystic Valley Dairy to the 2010 Live Auction benefiting the Professional Dairy Producers Foundation. Pictured are James Bailey, nutritionist for Mystic Valley Dairy and supporter of the calf donation; buyer Chuck Ripp; Mitch Breunig, calf donor, along with family members Allison Breunig, Jacquie Breunig with son Brayden and Jeannette Breunig, mother of Mitch Breunig and co-owner of Mystic Valley Dairy. In front is Lauren Breunig.

• A Pheasant Hunt package found that final bid with Quality Liquid Feeds of Medford, Wis. for \$650. This fun package was donated by Sharon Brantmeier of Ameriprise Financial and Don Meyer, Rock River Laboratory.

• A handmade quilt crafted by Karla Zimmerman was purchased by Badgerland Financial for \$700.

JoAnn Maedke, Foundation board member and coordinator of the Live and Silent Auctions, had high remarks for donors and buyers.

"The Foundation is truly a blend of industry and dairy producers working together for future education," Maedke stated. "I am extremely grateful to be part of an industry with such great cooperation and commitment to education."

The Foundation was established in 2002 by Professional Dairy Producers of Wisconsin as a vehicle to raise funds and award grants for educational programs for dairy producers and the public. The Foundation is a 501(c)(3)



Warmka Holsteins of Fox Lake, Wis. purchased a rotating cow brush donated by GEA Farm Technologies at the 2010 Live Auction to benefit the Professional Dairy Producers Foundation. Pictured are Laura Warmka, Russ Warmka and Keith Engel of GEA Farm Technologies.

organization. For more information, visit **www.** dairyfoundation.org.



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The Capital Factor in Farm Business Management

For most farm businesses, capital is not an infinite resource. Each farm business has a specified amount of capital and a unique blend of capital allocation based upon enterprise type, operation size, investing and spending habits, profit objectives and future plans.

Capital is an important area to assess based upon the farm business' past financial performance and its future plans. In my last



article, I introduced the

Amber Bennett

concept of the "Five Cs of Credit"—Character, Capital, Capacity, Collateral and Conditions – and took some time to review the Character factor. In

this article we will explore the second "C": Capital.

While lenders typically analyze numerous ratios and indicators related to capital depending on the nature of the farming operation and the credit request at hand, this discussion will focus on capital decisions as they relate to farm business management from a practical, profit-driven perspective.

PERIODIC FINANCIAL STATEMENTS

It is essential to have a good recordkeeping system and to prepare regular financial statements, also known as balance sheets. These statements will allow you to monitor the unit's overall financial position, to examine trends – including potential



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A proud sponsor of the Professional Dairy Producers of Wisconsin, leading the success of the dairy industry through education. strengths and weaknesses—and to make informed decisions regarding capital resource allocation. Balance sheets are typically prepared on an annual basis, or more often such as quarterly or monthly depending on the nature of the operation.

WORKING CAPITAL

It is important for a farm business to build and maintain an adequate level of working capital.

Working capital is generally defined as cash and current assets that will be converted to cash within a 12-month period minus any payables and liabilities that require repayment within the next 12 months. Strong working capital levels allow a farm business to weather adversity and volatility, pay down debt ahead of schedule, expand or diversify the business, and allow greater flexibility in overall decision making.

The last two years have proven to be a challenging time for most areas of agriculture given volatile commodity prices and rising input costs. It is in these volatile times that cash is truly "king" and shows why it is so important for a farm business to build liquidity reserves during good times.

DEBT & LEVERAGE

As the old saying goes, sometimes "It takes money to make money." Investing and borrowing decisions require the examination of many factors, including capital replacement or expansion needs, future plans for the business (phase down or get bigger, specialize or diversify), operational efficiencies, profit opportunities and so forth.

As another old saying goes, "Too much of a good thing can be a bad thing." Thus, every farm business has a debt threshold in which too much debt will render the unit unable to generate a profit and repay the debt. Whenever additional debt is considered, it is wise for you to consult with the farm's other key managers and a trusted financial advisor such as the farm's lender to assist with a cost and benefit analysis of a proposed capital purchase and the subsequent debt load.

OPPORTUNITY COSTS

When considering capital allocation, it is prudent to not only examine the costs and benefits of a proposed capital purchase but also to analyze the "opportunity cost" of the decision. In other words, consider what opportunities the farm business will forego due to the proposed purchase.

For example, if the Jones Farm wishes to expand its land base and buy the neighboring 150-acre farm, it will tie up some of its working capital for the down payment, incur long-term debt to finance the purchase and increase its interest expenses and principal repayment obligations for the next several years. However, if the Jones Farm does not buy this parcel of land. what other investing opportunities might come into play over the next several years that would provide even greater opportunities for the business to fulfill its long-term objectives and increase overall profitability?

The moral of the story is that every capital purchase decision has a trade-off known as an opportunity cost that must be considered.

'PLAN B'

Most capital purchase decisions are ones that will impact an operation for several



Looking at Dairy in a new way

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Delegates at the 26th Annual International Animal Health and Nutrition Symposium will explore and discuss sustainable strategies for the dairy industry such as, creating value by branding milk, promoting our good industry practices, using new strategies to protect our herds – the single most expensive investment on your dairy farm – and utilizing alternatives for reducing rising feed costs.

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You have a big investment of time, money and genetics in your heifers. At breeding time you're taking another step toward getting a new crop of calves from them.

But before those heifers are bred, make sure they're on schedule with their vaccinations.

Most dairy farms no longer vaccinate all their cattle each spring and fall. Instead, producers increasingly understand the importance of keeping dairy animals of all ages current with varying schedules of vaccinations throughout the year.

"In general, to prepare heifers for breeding, we like to have their vaccinations already completed—or the final one given—at 12 months of age, in anticipation of breeding," says Dr. Sheila McGuirk, a professor of large-animal medicine and food animal production medicine at UW-Madison.

McGuirk says the foundation of a vaccination program for breeding age heifers is made up of the "so-called 'five viruses'": infectious bovine rhinotracheitis (IBR), para influenza 3 (PI3), both types of bovine viral diarrhea (BVD), and bovine respiratory synctial virus (BRSV).

Having heifers ready to get vaccinations when they're 12 months old means making sure their initial vaccinations were given at the right times.

McGuirk recommends that calves be given a round of vaccinations when they are three months old, with the second round of vaccinations administered a month later.

With those vaccinations in place, heifers about to be bred can be vaccinated one more time, at 12 months old. Following that kind of schedule, McGuirk says, gives heifers "three opportunities to respond" and build up their immune defenses.

Along with the five viruses, McGuirk suggests vaccinating dairy cattle against Lepto hardjo bovis, the bacterium that causes leptospirosis. She adds that calves can face a challenge from leptospirosis when they're three or four months old, depending on the level of infection in a farm's herd.

Many dairy producers vaccinate against salmonella, too. In young calves, salmonella manifests itself as scours and respiratory problems, McGuirk explains, adding that "it can also affect many bodily systems."

Other diseases dairy producers might want to protect their cattle against include Coliform mastitis, scours, brucellosis and clostridia.

Most Wisconsin dairy producers, McGuirk says, are vaccinating their calves, heifers and adult cows at the right times and the right way.

"The things producers sometimes fail at is getting in a booster, particularly for BRSV and lepto. They require a booster," the veterinarian stresses.

"And then it's remembering to come back before breeding and emphasize getting a final shot

See Heifers on page 10

Opportunity Continued from page 3

recommend is a methodical, stair-step approach that builds the best possible average price for milk over time. This approach differs from a "shotgun" approach where you commit a great percentage of your milk at a given price and hope that decision is a good one. Selling in methodical, smaller increments over time increases the probability that all of your decisions add up to the best possible price over the long haul.

Reason 3: Waiting for prices to climb before I do anything. Why "lock in" a loss now?

Our response: True, you do not want to lock yourself into a low price with no opportunity to capture higher prices if they become available. That's why we design strategies that help clients establish a worst-case floor. Then, we might use a tool like options to be sure we are able to take advantage of better prices if they occur.

Because prices spend more time below the generally accepted mark of profitability (see chart), it is important to minimize losses during those times, and capture as much opportunity during the good times.

Marketing is another frontier of opportunity that has opened up in recent years. To capture that opportunity, you'll need to commit time to learning how to manage this new frontier. Like all new business opportunities, you need to either become an expert or hire one to help you grow your expertise. Doing so will position your dairy for success long term.

Stewart-Peterson is a corporate sponsor of PDPW and a supporter of the Professional Dairy Producers Foundation. You can find more educational resources at www. stewart-peterson.com, or call 800-334-9779.

The Milk-Feed Ratio has been above 3.0 only 33 percent of the time since 1985. (3.0 is the generally accepted threshold for profitability.) This underscores the importance of managing your marketing well, taking as much profit margin as possible as a cushion against the negative months. Source: Stewart-Peterson, Inc.

The data contained herein is believed to be drawn from reliable sources but cannot be guaranteed. Neither the information presented, nor any opinions expressed constitute a solicitation of the purchase or sale of any commodity. Those individuals acting on this information are responsible for their own actions. Commodity trading may not be suitable for all recipients of this report. Futures trading involves risk of loss and should be carefully considered before investing. Past performance may not be indicative of future results.

Matt Mattke, Market360® Advisor, Stewart-Peterson, Inc.

Milk-Feed Ratio Analysis				
1985 - 2009	Number of Months	Percent		
Total Months	300	100.00%		
Months above 4.0	12	4.00%		
Months above 3.5	33	11.00%		
Months above 3.0	99	33.00%		
Months above 2.5	223	74.33%		
Months above 2.0	284	94.67%		
Months above 1.5	298	99.33%		
Months above 1.0	300	100.00%		



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Heifers Continued from page 8

at getting things in them that might affect their reproductive efficiency."

Once cattle have reached adulthood and have had their primary vaccinations and boosters, many vaccinations need to be administered just once a year.

"The trouble is, a lot of cows aren't on an annual cycle," McGuirk states. "A lot of cows have longer lactations than 365 days, so the vaccination management has to make sure that a cow that is milking for 400 days, for example, is ready to breed again and also stays healthy when she goes into a different group."

For farmers who want to administer some vaccinations on their own – but under a veterinarian's supervision, McGuirk offers this advice: "It's critical that people vaccinate on label. Administer it exactly as the label describes.

"If the label says to give it subcutaneously, do so to protect carcass quality. If the label says a booster is needed, make sure you do administer one."

McGuirk adds that the label might state that the booster shot can be given two to four weeks later. However, she says she generally prefers to wait the full four weeks.

She also urges producers to "remember to limit the number of gram-negative bacterial components in a vaccine to two at one time" since they tend to cause problems with adverse reactions.

In any case, a vaccination program for calves, heifers and cows needs to be specifically tailored to each farm's needs. That also means working closely with a veterinarian, McGuirk says.



"It's a critical thing," she says. "A lot of people think there's a vaccination template out there. But both the components and the timing of the program should be very strategically placed, because the goals are to have optimal immunity at the time these cattle are at risk or most challenged. It may depend on the farm. The agents or diseases we're most concerned about will differ from farm to farm."

By Ron Johnson



Photo by Shannon Hayes

The foundation of a breeding-age heifer vaccination program is made of five viruses: infectious bovine rhinotracheitis (IBR), para influenza 3 (PI3), both types of bovine viral diarrhea (BVD), and bovine respiratory synctial virus (BRSV).

Storage

Continued from page 1 maximum temperature and placing it in the appliance. Maas advises leaving the thermometer in the refrigerator for several days, moving it to several locations, to check for cold spots and warm spots.

"These thermometers can be purchased for less than \$20," Maas says. "They're made in electronic and magnetic form.

"Simply go on the web and type in 'recording thermometers' and browse the various offerings until you find one that suits your needs. Leave a thermometer in your storage refrigerator and monitor it from time to time."

DIRECTIONS CAN CHANGE

Many dairy producers have administered vaccines to their cattle for years and figure they know all about using and storing them. But Waldner says that might not necessarily be the case.

"There are many new products on the market that are exceptions with regard to frequency of administration and handling, compared to older, conventional vaccines," he explains. "It's important that all vaccines are handled and stored properly to maintain their potency. And always read and follow the instructions carefully."

By Ron Johnson

PDPW's Business Conference Provided Wealth of Information For Producers To 'Imagine Dairy—Real Results'

If you weren't among the 1,350-plus dairy producers from Wisconsin and other states who attended PDPW's business conference March 16-17 in Madison, then you missed out on hearing numerous powerful speakers who delivered an abundance of information to help producers achieve real results. But. because PDPW's mission is "to share ideas. solutions, resources and experiences that help dairy producers succeed," here is a brief synopsis of just four keynote and specialty sessions conducted during the two-day conference.

Dr. David Kohl, business coach and president of AgriVisions LLC, a knowledgebased consulting business: During his presentation "Capitalizing on the Three O's of Business Success: Optimism, Opportunities and Oneself," Dr. Kohl pointed out that optimism should reign as agriculture is one of the new engines of growth and opportunity will be available to all sizes and types of dairy operations.

"One size does not fit all. You can be successful with any type of business model. The traditional dairy operation will survive," he said, adding that successful dairy producers will need to take key steps for a bright future, including having a strong focus on business management, engaging consumers and special interest groups, making educational investments in themselves and maintaining a balanced lifestyle.

Addressing the "oneself" of his presentation, Dr. Kohl urged dairy producers to be proactive in their businesses, noting that producers must also be cognizant of the forces driving change in the industry and the choices producers make.

"Special interest groups and consumers will have a bigger effect on our industry than will government," Dr. Kohl said. Ninety-nine percent of people communicating through social media, and thus influencing perceptions, are two generations removed from the farm, he said, underscoring the need for producers to reach out and engage people outside of the industry.

"Job one—talk to people outside of the industry," he said. He believes that by being a leading voice for the industry, producers can help shape perceptions.

Dr. Janice Swanson, director of Animal Welfare at Michigan State University, shared insight regarding six advances in technology that can assist producers in continuously improving their herd health systems, which in turn benefits both the cow and the operation. The six tools discussed were 1) ice tags or pedometers to track the number of steps an animal takes during the course of the day to monitor exercise and activity; 2) thermography that can indicate swelling or inflammation the cow may be experiencing and help the herd manager treat the animal before injuries become a major issue; 3) force plates which help determine the weight of the animal without using large scales and shows if the animal is shifting her weight improperly due to lameness: 4) video observation so producers can

See Results on page 12

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Results Continued from page 11

view their animals and monitor activity from their office or home; 5) wireless accelerometers that attach to the cow's leg and tracks her movement and activity; and 6) a backpack-type ice sampler that will automatically draw blood samples from livestock without the need to corral them or cause stress

Michael Stolp of Northwest Farm Credit Services didn't mince words in his "Family Business: Putting the Wheels Under the Bus" session.

"It's time to stop acting like kid brothers, and start acting like business partners," Stolp stated. He pointed out that family businesses include different perspectives based on whether people are owners, family members or employees and, as such, each person carries a different perspective about what

the business is all about, how it should operate, what its priorities ought to be, where it should head in the future. etc. And, when families fail to recognize those different perspectives as just thatdifferent, problems can arise.

"Different is just different," Stolp said. "We're not wrong iust because we bring a different perspective to the business. But we have to be open and honest about this and to realize there is a richness in the diversity we can bring together in family businesses."

To get to the heart of individual differences and what makes-or breaks-each person in the business. Stolp encouraged people to examine their own behavioral styles according to the DiSC method that covers four key behaviors: Dominance. Influence. Steadiness and Conscientiousness.

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After one identifies his/her style, Stolp said communication typically opens up. From there, people may develop a code of conduct. Unlike business bylaws or job descriptions, these codes Stolp has seen developed by families spell out how they will treat each other so that "family businesses don't have to spin out of control."

Another tip from Stolp was need to create a business history timeline with narratives for why certain achievements were milestones and what differences they made in the operation, as well as lessons learned. Doing this. Stolp said. can help the next generation of family members understand how and why certain changes in business are held in such esteem by their aging parents.

Stolp also encouraged family businesses to distill values such as honesty, integrity, industry leadership and fun in the business and to develop a consensus-based vision for the future.

"Remember, we're all different, and that's OK. he said. Kevin Bernhardt with UW-

Cavital Continued from page 6

years. Looking at the big picture, vou should analyze various scenarios and determine appropriate alternatives for potentially reversing or modifying a past purchase decision based upon potential market and operational risks, changing business objectives and future plans. Consideration should be given to plans for enterprise diversification, expansion, bringing in the next generation of family into the business, accommodating the exit or retirement of some family members, and unexpected scenarios such as death, divorce, disability and dissolution.

Capital asset management is a challenging job for any farm business manager. However, it can Platteville and the UW-Extension Center for Dairy Profitability addressed risk management, particularly marketing milk and contracting inputs, and wanted dairy producers to understand one thing: "You don't put money in your pocket from the milk price, but from the margin,"

"If you take the risk away. vou're taking opportunity away," Bernhardt said. "That's the way risk works, and the way risk management works."

Bernhard urged dairy producers to balance production management, cost management and marketingand use marketing as a way to create margins between production and cost.

Bernhardt walked workshop participants through production and price histories on milk. From 1980 to 2003, the average price paid for 100 pounds of milk was \$11.94. From 2004 to 2009, the average price was \$14.69. He noted that, while it may appear that the average

See Summary on page 16

be a very rewarding job because well-planned decisions propel greater operational efficiencies and increased profitability for the farm business. It can also provide for a fulfilling career and a potential farm business legacy for future generations to enjoy.

Amber Bennett is Senior Vice President- Credit Delivery at Badgerland Financial, serving farmers and rural residents in 33 counties of southern Wisconsin. Amber works with a team of lenders and customer service specialists who specialize in serving the unique, financial needs of agricultural producers of all enterprise types and sizes. She grew up on a dairv and livestock farm in southwestern Wisconsin and has 18 years of agricultural lending experience. She received a Bachelor of Science degree in agricultural economics from UW- Platteville and an MBA from UW-Whitewater.



Balanced Rations Enhance Component Profits

With dairy producers being paid for pounds of fat and protein, evaluating the herd's milk components has merit and may be more important than simply looking at pounds of milk produced.

Randy Shaver, UW-Madison Extension Dairy Nutritionist, explains that determining milk composition goals for a herd can be challenging.

"The pay prices per pound of fat, protein and other solids produced and the add-on premium per hundredweight of milk change over time," Shaver states, "so the right milk composition to go along with milk yield depends on each herd and their current pay prices for each component."

Shaver, however, stresses the importance of evaluating an individual herd and creating

goals. He says the first step for stability of components is comparing your herd's test with the breed average, as seen in the adjacent table.

If the milk fat test values are considerably higher and the protein-to-fat ratio is lower than the set averages, feeding for an increase in milk production could help profits. Contrarily, if milk fat test values are lower or the ratio of protein-to-fat is higher, feeding more grain in hopes of increasing milk yield may adversely affect cow health.

Shaver acknowledges these protein-to-fat ratios as a benchmark for producers to work from.

"If the butterfat is very high, there may not be enough starch or grain in the herd's diet to support milk yield and protein production. If the butterfat test is very low, then there may not be enough forage or fiber in the diet to support normal rumen function," Shaver states.

With difficulty in determining the short-term economic piece of the components puzzle, feeding for healthier cattle generates the most income in the long run. Luckily, the ration for cow health is somewhat synonymous with the diet for balanced fat and protein yields.

"First, you need a wellbalanced diet," Shaver encourages. "Work with a nutritionist to put together a diet that will keep cows healthy by creating the right balance of fiber and carbohydrates. Keep the rumen healthy and dry matter intake up (a good rule of thumb is 3.5 to 4 percent of the cow's bodyweight), and the milk components should follow."

Still, examining a ration deficiency could lead to the source of a milk component shortage.

The diet may affect milk fat production the most. Forage percentages and particle size, after-feeding sorting and level/ source of supplemental fat in

See Rations on page 14

Breed	Protein %	Fat %	Protein-to-Fat Ratio
Ayrshire	3.3	4.0	.83
Brown Swiss	3.5	4.1	.85
Guernsey	3.6	4.7	.77
Holstein	3.2	3.7	.87
Jersey	3.8	4.9	.78



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Start Protecting Your Skin and Ears This Spring

As the days get longer and Wisconsin farmers head back outside, it's important to go back to the basics of farm safety. Taking care of your personal health and wellbeing includes skin and hearing protection.

Farmers spend much more time outdoors than the average person. Although this means they get to take in the fresh air daily, it also means they have much greater exposure to the sun.

According to the National Farm Medicine Center, a program of the Marshfield Clinic Research Foundation, one in five Americans will develop some form of skin cancer. Those especially at risk include individuals who have fair skin or a history of skin cancer in their family. Regardless of race, individuals who spend a lot of

time in the sun are also at increased risk.

As you head outside this spring and summer, you might to keep these guidelines in mind:

• Use machinery with cabs or shades as often as possible.

• In the hot summer months, wear light, cool clothing—such as woven shirts and pants that covers as much skin as possible.

• Wear hats with three-inch or larger brims. Keep in mind that baseball caps aren't the best choice as they leave ears and neck exposed to the sun.

• Wear sunglasses with both UVA and UVB protection.

It's also imperative to apply sunscreen that is SPF 15 or higher and, like your sunglasses, protects against both UVA and UVB light. Sunscreen should be applied 20 to 30 minutes before

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heading outside and reapplied at least every two hours. If you are swimming or perspiring, reapply more often.

Remember, if you are over the

age of 40 and cannot limit your sun exposure, the National Farm Medicine Center

See Safety on page 16



Loud machinery is a hearing hazard commonly overlooked on the farm. Noise from most farm equipment is above safe noise levels. Keep a pair of ear plugs handy to make ear protection a convenience and a priority.

Rations Continued from page 13

the diet highly affect the fat test.

"Forages that are chopped too finely and rations without adequate coarse particles lack the effective fiber necessary to stimulate cud chewing and saliva flow for buffering rumen acidity, which can result in reduced milk fat test," Shaver says.

"Rations that contain high levels of supplemental fat—or if the supplemented fat is from sources high in unsaturated fatty acids [such as distiller's grains], it can cause milk fat test depression."

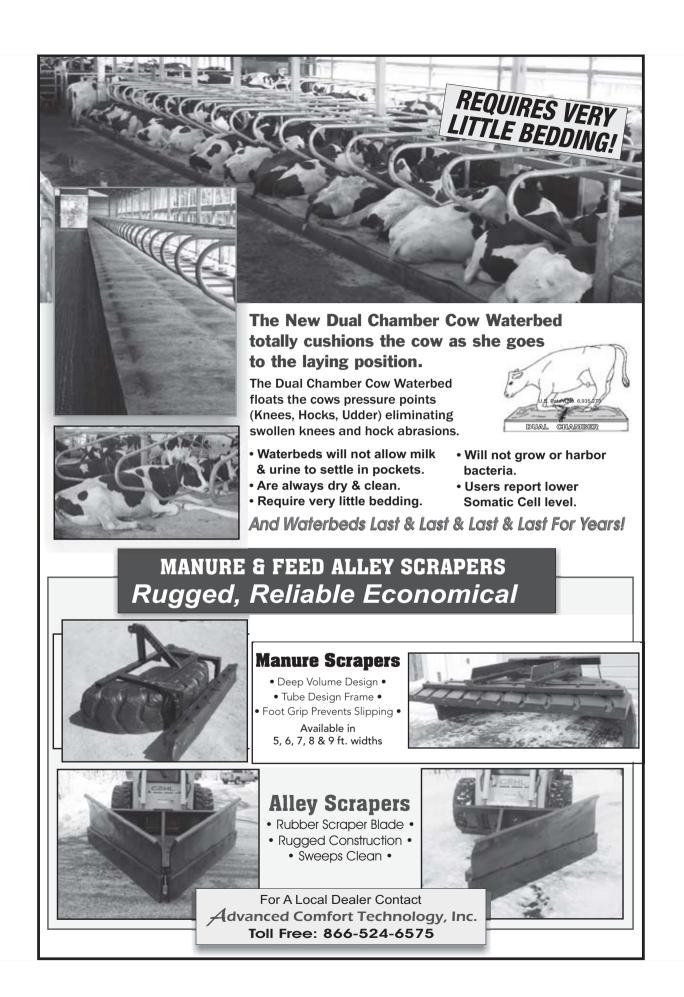
A balanced ration, however, does not end with butterfat production.

Beyond dietary starch content and digestibility, milk protein is affected by the content of crude protein in the ration and the rumen degradability of fed protein. To maximize this component, rations should to be formulated for adequate crude and rumen proteins and evaluated for amino acid status. Because these factors are also important for achieving high milk production, they can have a major impact on the yield of milk protein.

Symptoms of an unbalanced diet go far beyond the milk check. Laminitis and acidosis can drop herd profits over time, with lost cattle and decreased production. Plus, a ration with inadequate forage can result in breeding problems, mastitis and immobility.

"The message really is finding that balance for your herd," Shaver states. "If you keep an eye on prices, the diet can be tweaked for the higher-valued component, but finding the balance again is like walking a tight rope.

"Feed for healthy cattle, and the components should come."



Safety Continued from page 14

recommends you visit your physician for regular skin exams.

Just like the sun, loud machinery is also a hazard on the farm that's commonly overlooked. According the National Institute for Occupational Safety and Health (NIOSH), any exposure to a noise above 85 decibels has the potential to cause permanent hearing loss—and most farm equipment is above the safe noise level.

Tinnitus—ringing in the ears—can show up long before you notice hearing loss. While ringing is the most common sign, tinnitus may also show up in the form of chirping, clicking, hissing, roaring or whistling sounds, according to NIOSH. If you or a loved one notice tinnitus or hearing loss, visit a health care provider to have your hearing tested as soon as possible. Once you lose your hearing, it is impossible to get it back.

If you've been meaning to replace worn, loose or unbalanced machine parts, this may be the best time to do so. Fixing equipment as well as keeping it well lubricated and maintained helps to reduce equipment noise.

NIOSH also recommends you "make hearing protection convenient." For example, get in the routine of putting a pair of earplugs in your pocket when you get dressed each morning. If you're working in the fields, hang your earmuffs on the machinery's steering wheel so they're waiting for you when you start the day.

Tips for selecting and using hearing protection include:

• Everyone's ears are different, and one size does not necessarily fit all. Make sure you can fit at least half the earplug into your ear and that it stays firmly in place. If it doesn't, you



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should get a different size earplug.

• Make sure your hands are clean when putting in your earplugs. Dirt, grease and grime can irritate your ears. If you're in a place where you can't wash your hands, earmuffs or premolded plugs are probably your best bet.

• You know your earplug is inserted properly if your voice sounds deeper or louder.

• When you're done with your earplugs, twist them slightly to

Summary Continued from page 12

price paid for milk has jumped to a new high, there is only five years of history to tell whether it's a true increase or just a shifting up.

"If the average has jumped, then the volatility around this price has also jumped," Bernhardt said. His Class III milk price charts bore witness: Since 2004, milk prices have ranged from a high of nearly \$21 for 100 pounds and a low of just over \$9 for 100 pounds.

Adding that producing milk takes a lot of inputs and the greater costs for dairy farmers-whether they buy it or grow it themselves-is feed for their cows. Bernhard tracked corn prices from 1866 to 2009. This look backwards showed 20- to 30-year periods of rather stable prices for corn combined with fluctuation and periodic market corrections in which the average price moved upward. The period ending around 2005 showed nominal corn prices averaging about \$2.50 a bushel. Since then, that price has jumped to \$4.13 a bushel.

"Is this an anomaly or is it a new average?" the agricultural economist asked rhetorically. "It depends on what happens in the next couple years."

The futures market, Bernhard said, allow producers to manage their exposure to

break the seal and remove them safely from your ears. You can cause damage to your ears if you just pull on them without breaking the seal.

Farming is certainly filled with more hazards than the average occupation. However, taking just a few minutes to practice these simple steps to prevent sun damage and hearing loss can help eliminate some of the risk you face from day to day.

By Andrea M. Bloom

pricing risks—to lock in their prices for milk as well as their prices for inputs. He encouraged producers to do so on both sides of the ledger, realizing they also need to be able to live with the fact that they won't always be buying at the lowest price nor selling at the highest price.

"If you're going to put price security on the milk price side, a good marketer also needs to look at the input or cost side of the operation," Bernhardt said.

The risk management specialist said management does matter for today's successful dairy producers, and that requires a knowledge of marketing.

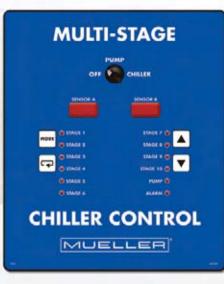
"And if you're going to do marketing, make sure it's a part of—not all, but a part of —your management," he added.

"Will you always get better than the cash price offered for milk when you're using futures? No," he stated. "But, you have to remember, it's the margin between that price and your inputs that counts. That's where you make your money."

More complete information about these and the many other keynote and specialty sessions at PDPW's 2010 Business Conference is available online at www.pdpw.org. Just click on the "PDPW BUSINESS CONFERENCE—Press releases recapping the event" link and take your pick of topics.

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The Dairy Cow's Time Budget and Cow Comfort – Part 1

Life in a freestall environment presents the cow with many challenges, and understanding the stresses on the dairy cow's time budget helps us understand the impact of poor cow comfort.

The dairy cow is a workaholic. She spends much of her life operating at three times the energy cost of maintenance something humans only approach while performing strenuous physical activities on a par with jogging six or more hours a day or competing in the Tour de France—and the dairy cow operates at this level for a lifetime. So, if our cows make Lance Armstrong look like a "couch potato," it seems reasonable to examine her daily requirement for food and rest so we can make sure we are providing for her needs to accomplish her goals.

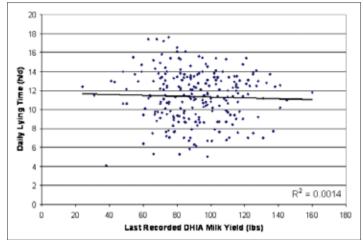
Certain components of the cow's day are fixed and non-negotiable:

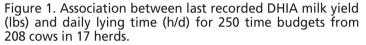
1. The cow has to spend a large proportion of the day eating to fuel the large fermentation vat she carries around with her. The TMR-fed, freestall-housed dairy cow eats for an average of 4.5 h/d.

2. She needs to drink around 25 gallons of water per day more in hot climates—and she will spend an average of 0.5 h/d at or around a waterer.

3. Milking time is usually spent outside the resting area in all but tiestall herds, and, in 17 Wisconsin herds milking 2-3 times a day, the average cow spent 2.7 h/d out of the pen milking .

With these fixed nonnegotiable time slots, 7.7 hours have been taken out of the cow's time budget, leaving less





stall.

than 17 hours remaining in the pen.

Time left in the pen will be spent performing three activities: lying down, standing in an alley and standing in a The average freestall cow spends 2.0 h/d standing in an alley socializing, moving

See Comfort on page 20

8.7% of dairy heifers die before weaning.

Calves are born with naïve immune systems into worlds that are covered with organisms that can cause scours and disease.

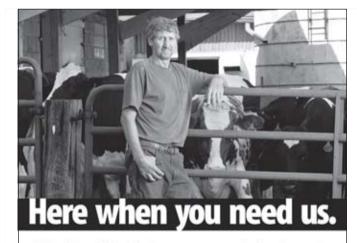
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What Legislation Will Impact Dairy?

Just as spring field work is beginning, dairy farmers will want to keep an eye on what is taking place in the State Capitol.

It won't be easy because, while the final floor sessions of the 2009-10 Legislature are taking place in April and May, bills being debated and voted on are the ones of great importance to the dairy industry.

According to the Legislative Session scheduled final legislative floor periods are set for April 13-22 and May 4-6 (for "limited business" only).

Specifically, the following are measure impacting use of water and impacts on water quality and quantity–especially groundwater.

GROUNDWATER PROTECTION BILLS

The Groundwater Protection Bill, AB 844, (SB 620 is the companion bill) was introduced on March 12 by Senator Mark Miller (D-Monona) and Rep. Spencer Black (D-Madison). AB 844 was assigned to the Assembly Committee on Natural Resources, which held a hearing on this bill March 31.

A hearing on SB 620 has also been held by the Senate

Committee on the Environment. These bills (AB 844 AND SB 620), if enacted into law, would fundamentally revise the state's groundwater law.

Attorney Jordan Lamb, legal council for PDPW, put together four main points of concern about this measure. They include:

• Transferring power from the Legislature to an unelected subcommittee of the unelected Groundwater Council to designate an area as a "groundwater management area" with only passive legislative review. Lamb said designating such an area "should be done by statute."

• Grants counties (or groups of counties) the power to regulate groundwater and surface water through groundwater management plans that are subject to legislative or administrative rule review. Lamb emphasizes, "the power to regulate groundwater and surface water uses is a power that belongs at the state, not at the local level."

• Allows "any person" to file a petition with DNR requesting environmental review of a proposed high-capacity well that may impact a surface water. That person does not have to have any connection to the well or the property or the watershed. "This

is a dangerous precedent that could expose Wisconsin farmers to expensive and burdensome legal challenges," Lamb said.

• Eliminates protection for existing high capacity wells. This bill grants DNR the authority to modify the approval of an existing high capacity well. "This is a fundamental shift from current law, under which existing high cap well approvals remain in effect indefinitely as long as they are compliant with the approval terms and with state law. This is, in effect, the retroactive application of a law onto existing high cap wells," Lamb pointed out.

SB 632–Another bill, introduced on March 18, is Senate Bill 632. The lead author of this bill is Senator Dave

See Legislation on page 22



Save Money By Saving Energy

You can get paid to improve your farm's efficiency and productivity while preserving the environment.

Programs like Focus on Energy help farmers save money by reducing operating expenses, increasing energy efficiency and implementing renewable projects. It gives objective, third-party advice and information about how to save on your farm.

"Every day farmers are faced with making decisions that affect their operation and its profitability. Often times saving energy does not rise to the top of their priority list," says Rich Hacker, Focus on Energy Agriculture and Rural Business Sector Manager.

Focus on Energy's no-cost services include expert assistance and energy assessments to identify energy efficiency opportunities, technical expertise to help select and implement cost-effective projects and practices as well as financial incentives to help cover the costs of energy-saving equipment upgrades.

"Wisconsin has had a long history of energy-efficiency programs dating back to the 1980s. Many of the Focus staff have been through the 'highs' and 'lows' of public interest in energy efficiency," says Hackner. "The difference today is that more people realize that energy prices are going up, that supplies can be disrupted and that the best way to hedge against price and supply uncertainty is to better manage how they use energy."

The Crave Brothers Dairy Farm in Waterloo has been an energyconscious farm for many years. While the dairy started with simple practices like minimum tillage, its green efforts have grown from there along with the expansion of their dairy operation.

"We strive to do better with less—whether it be with milk, manure or crops," says Charles Crave, one of the owners and managers at Crave Brothers Dairy Farm.

The Craves, like other energyconscious dairymen, have taken advantage of programs such as Focus on Energy that offer financial assistance for implementing energy-saving practices. They received aid from utility companies and other sources to install a manure digester on their farm.

"We knew it would help with environmental management, odor control and nutrient management," Crave says. "We would also benefit in marketing the cheese product. The timing was right when expanding the rest of the farm."

Continued from page 18

and returning from the parlor.

between the feed bunk and stalls

Once in the stall, the average

cow spends 2.7 h/d standing in

Lving behavior is typically

divided into about 7 visits to a

stall each day—called a lying

session—and each session is

and lving, called bouts.

categorized by periods standing

The average cow has 13 lying

Most cows will stand after a lying

back down again on the opposite

bout, defecate or urinate, and lie

bouts per day, and the average

duration of each bout is 1.2 h.

the stall and 11.9 h/d lying in the

Comfort

stall on average.

side.

The digester heats all other buildings on their farm, including the cheese factory, and offers great returns for the Craves. They use the digester's liquid byproducts as fertilizer on fields and the solid byproducts as bedding and in a line of organic potting soil.

"Check tax codes and grants, make sure you have the right people working with you," Crave states.

"These aren't everyday topics. It's not our every day field. We need to ask the experts."

Focus on Energy provides information on new technologies, education, training and assistance with construction and energy efficient designs in addition to renewable energy

around 12-13 h/d lying time, and this is in agreement with the lying times found in welldesigned freestall facilities.

It is commonly suggested that cow's make more milk when they are lying down as blood flow through the external pudic artery increases by about 25% when lying compared to standing up, and failure to achieve adequate rest has negative impacts on lameness, stress hormones such as cortisol, and growth hormone concentrations.

Requirement for rest is a threshold event, and all cows, regardless of yield, require a minimum period, which in a freestall environment, I suggest is around 12 h/d. In other situations, the threshold may be much less. For example, grazing cattle seem resources. An expert will come out to the farm to discuss facility operation, examine systems and equipment and evaluate energy usage to estimate energy savings and find ways to reduce costs. Following the assessment, you get a report of the findings, list of recommendations and summary of supporting Focus on Energy financial incentives.

"Start with the basics: soil, water, machinery, work with electrical contractors to find out if you're being efficient," Crave states. "Some little changes have proven to offer big returns.

"Work with vendors and contractors. Sometimes they need to lean in, too."

See Energy on page 23

to do quite well resting for 10-11 h/d at pasture.

Factors which challenge the cow's time budget will impact the time available for rest, and the common challenges presented cows with on a daily basis include prolonged time spent milking, competition for stalls due to overstocking, poor stall design, inadequate heat abatement and excessive time spent in lock-ups.

The impact of each challenge on dairy cow health and productivity will be discussed in Part 2 and Part 3 of this three-part series. Look for Parts 2 and 3 in upcoming issues of Dairy's Bottom Line.

Dr. Nigel B Cook Dip. ECBHM, MRCVS University of Wisconsin-Madison, School of Veterinary Medicine

Table 2. Target group size based on minimizing time out of the pen milking to 2.8 h/d in 3X milking herds.

Parlor SizeDouble 8Double 12Double 16Double 20Double 30Maximum group size =6191122152228Cows milked in 3.8 turns

MINIMUM DAILY REST PERIOD Studies show that cows target



Legislation Continued from page 19

Hansen (D-Green Bay). This bill has been referred to the Senate Committee on Environment, chaired by Senator Mark Miller (D-Monona). The committee approved the measure and it is now awaiting scheduling for debate on the senate floor.

This measure relates to "control of nonpoint source water pollution in certain areas with carbonate bedrock (Karst)." Under SB 632, the DNR, in consultation with DATCP, is required to promulgate rules to limit pollution of groundwater caused by spreading of any kind of waste, including animal waste, septage, sewage sludge and industrial waste, on land (land spreading).

The rules, under this bill, apply to certain areas with carbonate bedrock that are susceptible to groundwater contamination caused by land spreading and that are not sufficiently protected by the current nonpoint source water pollution bills.

The rules promulgated under this bill apply to susceptible areas in Brown, Calumet, Door, Kewaunee. Manitowoc and any other county that opts to have them apply. The bill further requires DATCP to make its existing rules concerning nutrient management consistent with the new DNR rules concerning land spreading on susceptible lands in covered counties. Enforcement can be through DNR-issued citations. This bill includes ag facilities or practices that were in existence before Oct. 14, 1997, without regard to whether financial assistance (cost-sharing) is available.

NR 151–The comment period has ended for revisions to the DNR's revised NR 151 rule (on nonpoint source pollution). Under this revised rule, for the first time the DNR would set numerical limits for Phosphorous runoff from any field. There are other issues in this rule as well. The DNR board is expected to discuss and act on NR 151 at the June meeting.

The DNR sets the bar on this rule, but it is DATCP that sets the standards. So once the DNR's work on this rule has been completed, it will be sent to the DATCP.

The DNR Board meeting dates are June 22 and 23 in Fitchburg.

LIVESTOCK SITING

The comment period on comments relating to review of the Livestock Siting Bill has ended. Livestock Siting is expected to be an agenda item at the DATCP's May 12 board meeting in Madison.

GENERAL PERMITS

Something new is being proposed by the DNR and it is General Permits (GP) or general permitting. The DNR has long required Wisconsin Pollutant Discharge Elimination System (WPDES) permits for concentrated animal feeding operations or CAFOs (1,000 to 5,720 animal units). Now, it is proposing GPs be required for small and medium CAFOs (less than 1,000 animal units).

Hearings on this proposal are planned on this proposal, with the last one planned for April 13 at the Fitchburg Community Center at 1 p.m.

USE VALUE

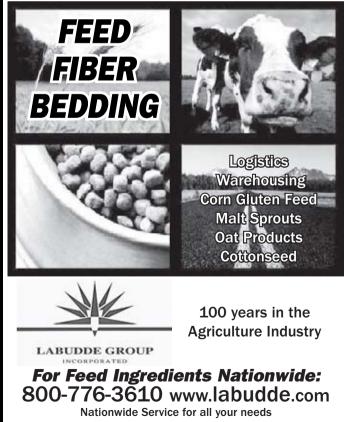
It appears threats to the Use Value Assessment of Farmland Law are again surfacing. These threats are primarily coming from cities and villages. Representatives of these municipalities are making it appear as though owners of ag land are not paying "their fair share" of property taxes.

Any owner of farmland is encouraged to keep their eyes and ears pealed for anything related to this important law. Suggestions that the law could be tweaked for any purpose are dangerous because opening up the law could again lead to lawsuits and possible weakening of the law.

Two lawsuits have already gone all the way to the state's highest court and while farmers won those suits, they are not guarantees they would always be successful.

By Joan Sanstadt







Leading PDPW's membership is its board of directors comprised of, left to right, Mark Diederichs, Malone; Doug Knoepke, Durand; Patty Endres, Lodi; Marion Barlass, Janesville; Russel Strutz, Two Rivers; Eric Hillan, Ladysmith; Keith York, Lake Geneva; Walter Meinholz, DeForest; and Kevin Krentz, Berlin.

Energy Continued from page 20

Orion Ag, a manufacturer of energy-efficient lighting systems, does no-cost, on-farm assessments similar to Focus on Energy's program. Orion Ag also looks for grants and other financial incentives for farmers to implement energy-efficient systems on their farms.

"I am sick and tired of farmers getting the short end of the stick," says Mike Ontrop, National Sales Manager for Orion. "I want farmers to be as independent as they can be.

"Anything that I can do to cut their costs and increase productivity, that's what I'll do."

Orion works to help farmers conserve energy through better systems, control energy by being more efficient and create renewable energy through natural light in addition to solar and wind power through hydraulics.

"I believe that the farm can become independent of power companies," Ontrop says. "With the technology we have now, we can take the farm off the grid during the day and just pay for energy at night - and that's cheap."

One of Orion's energy-saving solutions is long-day lighting.

"We're basically creating long days," Ontrop says. "Cows produce the most on long days. We create summer lighting all year long."

Regardless of where you turn for advice, the message is clear: Look for opportunities on your farm to save money and increase productivity by saving energy.

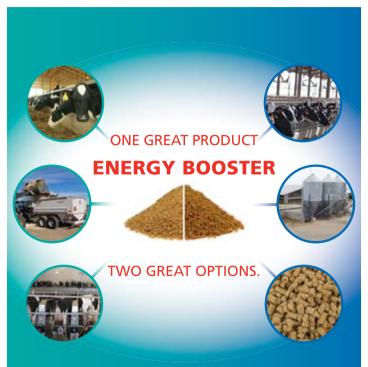
"But don't do it because the money is there. Do it because it's something you want to do and because it's good for the farm," Crave states.

"It's like going to school and getting scholarships. You have to want to be there first, you don't go just for the scholarship money.

"The programs that we implement now will still be vielding generations from now."

To contact Focus on Energy call 1-800-762-7077 or visit their website at www.focusonenergy. com.

By Katie Dogs



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