The Priority Report

November 2007

It's My Turn

"The More I Did, The Worse Things Got"

Guest Column by Bradley Johnston

The more I did, the worse things got. I did everything the experts said and the harder I tried, the worse things got.

Every morning I loaded every pocket with medicine and headed to the pens to work on cows.

I built new barns, hired new people, and bought more cows thinking if we focused on cow comfort and did all the things we were told, we could get more milk and the cows would be healthier. What a bad joke.

I changed my calving pens, fresh group lots, and the way I group my cows countless times. I even had my vet teach me how to do my own DA surgeries, because they were the largest percent of my vet bill.

I bought the silage processing equipment and gained a couple pounds of milk and more sick cows. Sitting down with my consultant, it was obvious we would need to buy more replacements.

I paid nutritionists to come each week and tell me what I was doing wrong and they told me, if I would just do this one more thing, everything would start getting better.

I put in foot baths and trimming programs, bought blocks and wraps and my cows' feet were still getting worse. They encouraged me to put more fiber in the diet and the feet would get better, but I just lost milk.

Thousands of dollars later and several years of hating to go to the barn to find more sick cows was getting me down. I knew I couldn't be the only dairyman to have all these troubles.

Then, a few years ago I was invited to go to a Priority One meeting.

I invited my paid experts to attend to help me decide if I should try it in my herd.

During the presentation one slide popped up that said, "If you are having one of these problems, Priority One might be able to help." There were about 15 problems listed. I was having 12 or 13.

In the weeks following the meeting, I asked the experts what they thought about Priority One. I was told if I did all the things Priority One told me to do, all the cows would get sick and die. Shoot, they were already sick and dying!

I was so tired of what was going on with my cows, I decided to try it anyway. The experts thought I was crazy – but I had done a lot crazier

see page 2

Tap Root Dairy
Bradley Johnston
North Carolina

- **825 cows**
- **25,400M RHA**
- **Preg Rate 19%**
- **Days 1st Service 64**
- **87% Preg at 183 days**
- **SCC 160 – 200**
- **DA Rate 1.5%**
- **Ketosis 1.1%**
- **Retained 1.3%**
- **Cull Rate 22%**

They Wouldn't Feed Cows Without Priority One

As progressive dairy producers, Scott and Tami Zimmerman keep an eye out for strategies to enhance cow performance in their herd of 85 Holsteins. So when John and Cheryl Buske introduced them to the Priority One Program, "we gave it a shot," Scott recalls. That was over seven years ago. "We wouldn't feed the cows without it – that's how much we believe in the product," Scott proclaims.

The first sign of change after implementing the P-One Program at Tasc Dairy near Watertown, Wisconsin, was firmer, more consistent manure. Within three months, the Zimmermans noted dry matter intake was up 1 to 1.5 pounds consistently.

"Our cows are regaining body score condition more quickly after calving," Zimmerman

see page 4

The More I Did, The Worse Things Got

cont'd from page 1

things doing all I was told to do in the past.

When I told my nutritionist that I was going to do the P-One Program, he was hesitant and advised me not to do it. I finally had to tell him if he did not want to try it, I would have to find someone else.

I think if nutritionists had the financial risk we have as dairy owners, they would be more willing to consider new technologies when things just aren't working and we are dealing with sick cows that are not performing.

After more than two years following the P-One Program exactly, nearly every part of my dairy is better.

We are getting more milk than ever. We are having very few problems with transition cows. Feet are the best my foot trimmer has ever seen. Abscesses are virtually gone. Breeding is the best it has ever been. Our somatic cell count is lower—I think from healthier cows and less stress.

Now when all the "guru's" come to look at my cows, they just scratch their heads and say, "Well, something is working." Then most say—we will watch and see what happens. I say it has been two years, I think it is time to stop watching and start doing!

I have had feed companies send in their people to see what was going on and to check my TMR. I invited the Zinpro rep to locomotion score my cows – he said it was the best herd he had scored in the South. He first scored them in spring and we had 2.1% scored four or five; he just scored again in October and had 2.2% four or five. Zinpro's goal is to have 3-5% four or five. The Rep said it was the first time he scored a herd as good in the fall (after the summer heat) as in the spring.

Nutritionists used to change my ration all the time. Except for adjustments for moisture, I just change my ration for DMI in the summer and for moisture changes. Recently I have increased my starch from 32 to 34% with a 15.8% ADF.

My brother and I were talking one day about the P-One Program. My brother said it best—

This is the first "new and better" idea we have tried that worked just like the company said.

My vet checks cows every week. Since we have been on the P-One Program he is amazed at the consistency of the cows' manure. He can't believe the difference between herds that are on the P-One program and those that are not.

I remember the breeding problems we were having several years ago and being told I couldn't have everything. I couldn't have maximum milk, cow health, foot health, and good breeding all at the same time. I had to pick which was more important and go with it. I thought, "that's wrong." If we have it right, it should all be right. A healthy cow should do it all. I was told I was dreaming.

Recently a well known breeding expert was brought in to help design a set of goals for reproduction in the hot, humid southeast. I wasn't able to attend the meeting, but the group sent me the goals they thought were very aggressive. After looking over the records, we noticed we had already exceeded all but one.

Now I wake up in the morning and look forward to going to the dairy.

It's so much better, I don't even tell my friends in the dairy business all that has happened since starting the P-One Program for fear they will think I am lying or just trying to "one up" them.

I was reluctant to write this because I thought it might sound like I was bragging. I chose to do this because I have been where most dairy producers are today – doing everything they are told to do and still having to buy replacements, and worrying every day how many cows are going to be sick, and how many are going to have to be culled or just flat out die.

I challenge each of you to attend a P-One conference and visit a herd that is following the P-One Program. You're welcome to visit Tap Root Dairy and investigate for yourself. ■

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Research *Update*

Summary: Ruminal Fermentation Patterns in Lactating Dairy Cows on the Priority P-One℠ Program

The Priority P-One Program consists of feeding Priority DCP, Priority One and ration changes. Priority DCP contains ruminal lactic acid utilizing bacteria that colonize (seed) the rumen and convert lactic acid to Volatile Fatty Acids (VFA). Priority One is fed throughout lactation and contains proprietary strains A2020 and A4000H. These bacterial strains convert glucose to lactic acid which is subsequently converted to VFA by the lactic acid-utilizing bacteria. Together these insure that rapidly fermentable carbohydrates are utilized properly for optimal energy production. The ration changes include increasing rapidly fermentable carbohydrate (RFC) or starch, decreasing crude protein and changing protein type.

Herd Facts
4800 Cows
43% NFC
58.7 DMI
28.4% Starch
15.9% CP

Materials and Methods

Herd Description. A commercial dairy in Washington State, consisting of approximately 4800 lactating Holstein cows, was selected for rumen fermentation analysis. Cows were milked at 12:00 am, 8:00 am, and 4:00 pm.

Cow Selection. Twelve cows each were selected from pens 20 and 21 for a total of 24 cows. Cows in pen 21 (fresh - group ave. 70 lbs. milk) averaged 29 DIM and were in their 2nd to 6th lactation. The cattle in pen 20 (peak lactation – group ave. 117 lbs. milk) averaged 99 DIM and were in their 2nd to 7th lactation.

Rumen Fluid Analysis. Rumen fluid was collected from the identified cattle via oro-ruminal probes (Mertz and Woskow 2006, unpublished data) at approximately 4, 7, and 10 hours post first feeding in October 2007. Rumen fluid pH was measured at sampling using a calibrated portable pH probe. Rumen fluid was then placed on ice and transported for VFA analysis via HPLC.

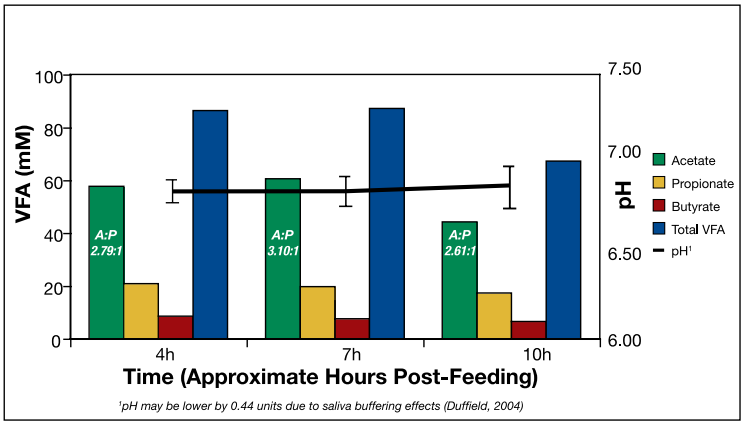

Figure 1. The combined mean ruminal pH and VFA at 4, 7, and 10 hours (6.8, 6.8 and 6.9) post-feeding. The acetate to propionate ratios (A:P) are shown for each time point.

Statistical Analysis. The mean pH and VFA concentrations between fresh cows and peak cows were compared utilizing repeated measures analysis. If significant differences were not found, data was combined. Analysis of variance was also performed to determine if there were significant differences between sample times.

Results

Figure 1 shows the combined mean ruminal pH at 4, 7, and 10 hours was 6.8, 6.8, and 6.9 post-feeding. The ruminal pH value of <5.5 has been utilized as an indicator of Subacute Ruminal Acidosis or SARA (Oetzel, 2001); however, Duffield (2004) showed that the threshold pH when using oro-ruminal probes should be adjusted to pH 5.9 due to higher pH values compared to rumenocentesis. Oetzel (2003) and Krause (2005) showed that 40% of high producing dairy cows fed a ration high in Non Fiber Carbohydrates (NFC) had a pH less than 5.5, compared to 8% of cows on high fiber rations (Krause, 2005).

The acetate:propionate ratio ranged from 2.6:1 to 3.1:1 (Figure 1). Hutjens (2003) indicated that under optimal ruminal fermentation the acetate to propionate ratio should be greater than 2.2. A ratio less than 2.0 has been associated with SARA and milk fat depression (Krause, 2005).

Ruminal lactic acid was detected, but not consistently detected at all time points. Since ruminal lactic acid was transient, this indicates the lactic acid was quickly converted to VFA by lactic acid utilizers. Owens et al. (1998) stated that greater than 40mM lactic acid is associated with lactic acidosis. The levels detected were well below the 40mM threshold.

Mean ruminal ammonia concentration was 15.2, 15.1, and 14.4 mg/dL at the three sample points. Ammonia is the main source of nitrogen for growth of certain ruminal bacteria. Ruminal ammonia concentration is high enough to support growth of bacteria, but not too high since the MUN level for this group was 10.

Conclusion

It is well established that feeding increased RFC will increase milk production. However, with the increased risk of SARA many nutritionists are reluctant to increase RFC. The use of Priority products offers producers and nutritionists ruminal pH control so higher RFC can be fed without the risk of SARA.

This is a summary—please email your name and address to info@priorityiac.com to receive the complete paper.

Summary of Five Studies

300 SAMPLES	pH Mean	4 HOURS	7 HOURS	10 HOURS
	6.63	6.71	6.62	6.56

Average pH of five studies that included 100 cows from Wisconsin, Texas, Utah, Michigan, and Washington State sampled at 4, 7 and 10 hours after first feeding.

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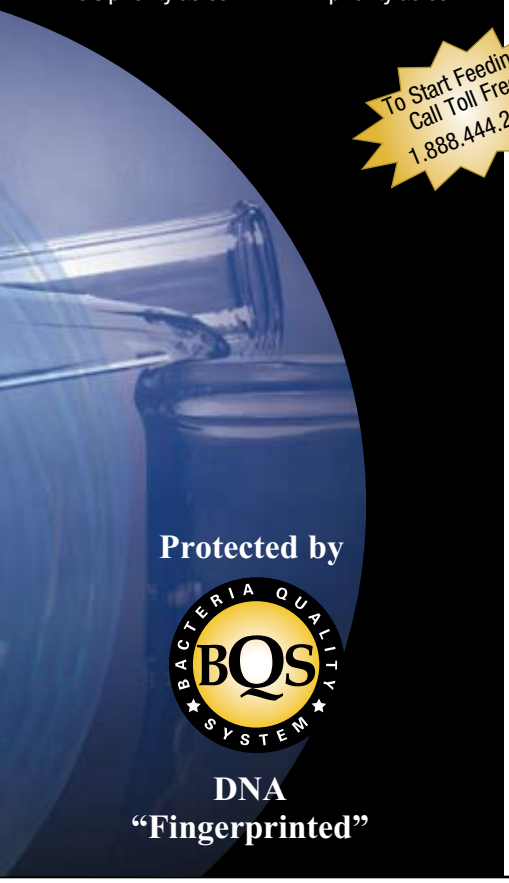

Scott and Tami Zimmerman

They Wouldn't Feed Cows Without Priority One *cont'd from page 1*

notes. "The cows take feed changes better – their intakes stay up. With a healthy rumen, a cow will eat more, gain more, and milk more. If you can increase intakes, there are more nutrients for maintenance and production."

> *"Our cows are regaining body score condition more quickly after calving"*

Zimmerman says overall cow health has improved. "Vet bills have dropped substantially, from $68 down to $44 per cow per year," he says, adding that part of the reduction is due to treating milk fevers himself. "The vet is not out much anymore except for herd health checks and the occasional DA. We have a lot fewer DA's due to improved rumen health – no more than two or three DA's a year."

Hooves are in better shape than ever. Prior to P-One, 15 to 20 percent of the herd developed at least one abscess due to acidosis. All the cows have their feet trimmed twice a year for growth or correction and "there's only an occasional abscess now," Zimmerman says.

Cows are milked twice a day in a stanchion barn and housed in freestalls bedded with sand. With a rolling herd average of 23,290M, 816F, and 704P, production has risen 3,967 pounds of milk, 116 pounds of fat, and 134 pounds of protein, and the Zimmermans have noticed an increase in persistence. "If not bred back, some cows go as long as 800 days before production drops off, and that's with no bST."

Zimmerman believes the combination of the freestalls (built in 1999) and the P-One program has resulted in some cows reaching 12 and 13 years old. "We added a group of cows in January 2000 and we still have some of them," Zimmerman says.

> *"If we have to cut costs in our feed ration, Priority One is the last thing I would cut."*

The Zimmermans raise their own feed. They feed corn silage, haylage, shelled corn and a little dry hay. Two years ago they began feeding BMR (brown midrib) corn silage and it has worked well with the P-One Program. Their CP (crude protein) is 16.4 to 16.8 percent.

Zimmerman concludes that the number one advantage of the Priority One Program is cow health. "Without healthy cows, you're fighting an uphill battle from the start," he says. "I would encourage anyone with fluctuating intakes in their herd or a low percent of cows chewing their cuds during rest to try the Priority One Program for at least six months. If you can keep the rumen healthy, it leads to the rest of the cow's health and increases longevity. If we have to cut costs in our feed ration, Priority One is the last thing I would cut." ■