



Rosy-Lane Holsteins, Watertown, Wis.

Second Green Tier 1 annual report, ending June 30, 2015

### **Executive Summary**

Rosy-Lane Holsteins has always tried to conserve natural resources while maximizing milk production. Our farm has a long history of soil and water conservation efforts, from contour strips and grass waterways, to diversion terraces and planting trees on hills. At the same time, we strive to be a profitable business that can be passed on to future generations. As our size grew over the years, more regulations came into play.

We were one of the first farms in the state to implement a Comprehensive Nutrient Management Plan (2003). We have had a nutrient management plan in place since 1992. As our farm continues to move forward and grow, we look at ways to get "better" from within, rather than strictly growing in size only. Green Tier offered us a way to pull many things together we had been talking about.

At this time, we have no plans to apply for Green Tier 2. The limitations it would put on our crop operation does not fit our production strategy. We believe the concept of Green Tier is good, however, the implementation of it is too rigid (i.e. no common sense applied to give us flexibility).

### **EMS Audit:**

None was completed.

### **Description of Progress:**

Our goals at the onset of Green Tier:

1. Reduce energy use 10% (as measured by kWh, BTU, and/or gallons water) per gallon of milk produced during 12 months ending June 30, 2015 (compared to previous 12 months) and compared to year 1 of Green Tier (2012-2013).

For 2012-2013 our electric usage was 1,216,240 kWh or 3341 per day ave.

For 2013-2014 our electric usage was 1,248,880 or 3393 per day ave.

*\* 3 coldest months in a row ever were Dec 2013, Jan. and Feb. 2014 \**

For 2014-2015 our electric usage was 1,256,880 kWh or 3443 per day average.

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Milk produced June 1, 2012 to May 30, 2013: 27,838,940 lbs. or 22.88 lbs. milk /kWh

Milk produced June 1, 2013 to May 30, 2014: 27,484,260 lbs. or 22.01 lbs. milk/kWh

*This is 1% less than our first year 2012-2013.*

Milk produced June 1, 2014 to May 30, 2015: 29,795,500 or **23.7 lbs. milk /kWh**

*This is 3.6% more than our first year 2012-2013. We are producing more milk per kWh this year than the last two years, so we are more efficient with energy consumed.*

2. Work toward eliminating open burning of trash to decrease greenhouse gas emissions.

Our largest volume burnable is paper feed bags. We generate about 20 bags per day (50-lb. size). We contract with Waste Management for a large recycle container and they pick up weekly all our recyclable papers, cardboard, bags, etc. This has allowed us to cut back our burnable volume by about 60 percent.

We are reusing paper from the home office to print out reports at the farm on the "back" side and only after using it on 2 sides is paper discarded/recycled. We do sort office paper out for recycling from 4 areas:

Dairy office

Farm office

Home office

Machine shop office

We compost all food waste.

3. Increase pounds of milk produced per pound of dry matter of feed consumed.  
As of June 2013 it was 1.71  
As of April 2014 is it 1.65  
December 2015 it is 1.67

This data is tracked via Cornell University's ProDairy program. Feed quality and the growing season affect feed efficiency so mother nature plays a major role in influencing this number.

The impact of this measurement is quite large: The "average" Wisconsin farm receives about 1.4 pounds of milk from every one pound dry matter feed fed. At 1.67, we are 19% more efficient than an "average" farm. This amounts to 658,273 more gallons of milk per year from our 825 milking cows, using the same amount of resources. **That is about 103 more semi-tanker loads of milk per year.** Even increasing this measure by .01 will make a measurable impact on our farm's sustainability and profitability.

In essence, we are getting more milk (food) off our 1,750 acres and doing it more efficiently than an "average" farm. This measure incorporates many aspects of farming and is an ultimate measure of being "in-synch" with natural resources entrusted in our care so they are here for future generations.

### Sustainability Metrics

Our EMS was put in place April 2014. Metrics listed in report sections.

### Environmental Performance

#### A. Transportation

We have a fleet of 5 tractors, 3 silage trucks, and 3 pickup trucks that we use on a regular basis. All are maintained in top-notch working order at all times. In addition, we recently implemented a no-idle policy if equipment is not going to be used in less than 3 minutes, it will be shut off.

We use a drag hose to transport liquid manure up to 4 miles away to keep trucks off the road, for safety and other issues.

We planted cover crops on farms a long distance away from farmstead that don't get manure applied. In 2015, we also no-tilled more than 100 acres or 12% of corn crop.

We planted 70 acres of tillage radishes this year after winter wheat for cover and to scavenge nitrogen for next year's (2016) cover crops: 130 acres of winter wheat and 200 acres of rye.

We buy as much as we can in bulk (feed, supplies) and it is delivered in large semi trucks, saving cost for our suppliers by making one trip vs. several with smaller trucks.

## B. Supply Chain

We have been breeding cows for 35 years to be efficient producers of milk. The companies that buy our Holstein genetics are now also becoming concerned about this and are seeking out our genetics to help change the dairy cattle genetics population around the world.

As one example, an artificial breeding company CRV from the Netherlands (with an office in Madison, Wis.) is focusing on this and their board of directors came to tour our farm during World Dairy Expo 2013. From CRV's website:

### **Better Life Efficiency**

As a general rule, productivity combined with longevity leads to high efficiency. A bull with a score of +5% generates a financial gain of \$335 per cow life in an average herd. Milk production and longevity are particularly important in calculating Better Life Efficiency, but persistency, maturity rate, fertility and weight are also taken into account in the calculation.

### **Better Life Health**

Using bulls with a high score for Better Life Health has the advantage that the herd becomes easier to manage and that cows stand a better chance of aging healthily. Better Life Health is calculated on the basis of a bull's genetic capacity in terms of udder health, fertility, hoof health, calving ease and calf vitality. A bull with a score of +5% generates a financial gain of \$95 per cow per year in an average herd.

Healthier cows produce high quality milk with fewer sick days, reducing antibiotic use and increasing milk production per unit of input.

Rosy-Lane has bred the herd over years to reduce cow maintenance and herd health costs; the program's success can be measured by a 67% reduction in herd health cost during the past 9 years (from 96 cents per 100 lbs. milk, down to 32 cents per 100 lbs. milk).

This is due to fewer treatments for mastitis, pneumonia, foot problems and other ailments. Our breeding and selection for healthier animals has gotten the attention of ABS Global in

DeForest and Alta Genetics in Watertown. Both companies have purchased many bulls from us in the past 8-10 years.

**Most importantly, we have gone 741 days (two years) without treating any sick cows with antibiotics.** Instead, we prevent diseases/illnesses as much as possible and use more homeopathic approaches to cow health. This means we are not dumping any milk due to antibiotics so ALL milk we produce is marketed to the plant and all inputs are used most efficiently to create our end product – milk for cheese.

The impact superior genetics can have on the environment has been talked about very little, yet it can have a large impact over time and on many farms. And, it doesn't "cost" anything – farmers buy semen to breed their cows regardless.

In 1993 we participated in research with the University of Wisconsin Madison investigated Kappa Casein, a protein in milk. Selecting for a specific gene in cattle (BB), can increase cheese yields by 10-15% so our milk buyer (Saputo) gets more cheese out of our milk than an "average" semi tanker load. In our herd, which is mostly AB genotype, we estimate the milk can produce a 5% increase in cheese yields for Saputo. Actually, we were the ones who informed our milk buyer at the time (Grande Cheese Company) about our ability to "manipulate" milk (add value) with Kappa Casein and improve it through our breeding program. They were unaware farmers had the ability to select for this gene.

At Rosy-Lane Holsteins, we can do all the recycling we want and stop open burning, but better genetics and other "big picture" efforts aimed at being truly sustainable, will make a much bigger impact over time. And, it will affect farms in the US and around the world. To us, this is most rewarding and more impactful. Breeding a cow that lives longer, breeds back sooner, has good feet and legs and converts less feed into more milk, is our ultimate goal.

### **Stakeholder Involvement**

We issues a farm newsletter, Rosy-Lane Record, 3-4 times a year for staff, landlords and our suppliers and consultants. A variety of topics are covered, many relating to being sustainable. Copies of the newsletter are attached for reference.

At each safety/staff meeting we have, we discuss important of sorting recyclables and composting with staff. We also reference the Green Tier program as appropriate and continue to challenge staff to come up with ideas on how to be "greener".

Our informal company policy is: Never say no to a farm tour. In calendar year of 2015, we had nearly 1000 visitors to farm – farmers, international visitors, school children & teachers and community members. At every farm tour – about 1 each week on average -- we talk about all the ways farmers recycle things:

- Straw for bedding
- Whey from our milk buyer and whey permeate being fed to cows
- Cottonseed from ginning process being fed to cows
- Coffee bean chaff from local Green Tier business being fed to heifers vs. going into landfill
- Manure from cows applied to land as nutrients to help crops grow
- Water used 3 times in milking parlor to clean up before it goes to manure lagoon
- Water used to chill milk is then pumped out to water cows in barns
- Milk chilling system is based off well water, being more efficient than using pumps and electricity
- A rain garden that captures water from calf barn roof, adds beauty and lets water percolate in, vs. run off in ditches

And many, many more practices that are implemented daily and weekly on our farm.

Daphne and other staff speak at numerous schools and community groups including Watertown Area Chamber of Commerce events. We hosted FFA's Food for America in May 2015 and we will do this again in 2016. Hundreds of Watertown school students visit the farm and learn from 8 or 9 "stations" manned by FFA members. Our key message for take home, which is repeated at each station is:

**Rosy-Lane Holsteins is a family farm that cares for their cows and calves every day so they produce safe, high quality milk and dairy products for you, the consumer.**

The farm has a Facebook page with 3,117 followers (nearly double last year which was 1,600) where a variety of topics and activities are mentioned, many relating to environmental awareness.

We are members of the Rock River Coalition and actively participate in many agricultural and non-ag activities.

**DNR Relationship:**

We have occasional contact with our SPOC within DNR and they are there to answer questions we have.

We are now awaiting approval of our permit renewal. All information and data required was in DNR hands by Oct. 19, 2015. The permit expires March 31, 2016. We are awaiting notice of when our public hearing will be. We hope for a more timely renewal than last time as we did our part to get application in on time and answer any questions that arose immediately.