

# BC DAIRY

## Growing Forward with

# Innovation

One year ago, the cows at Golden Gate Farm moved into their new super-comfy 3-row barn with tunnel ventilation and dual chamber waterbeds. The 2 Lely A4 robots are equipped with MQC technology to monitor milk components, quality and flow. The A4s also weigh each cow on the Gravitor weigh floor. The Lely Vector feed robot feeds 150 head in total, using 'feed presence sensors' to feed on demand. Lely activity and rumination tracking helps identify sick or cows in heat. Calves are fed whole milk via the Holm and Laue Milk Taxi.



Martin, Mikaela and Sarah Yoder (nee Donaldson) of Golden Gate Farm

## Golden Gate Farms

By Tars Cheema

Golden Gate Farm is a fourth generation Century Farm, started by Sarah's great grandparents in 1912, after making the long journey from Newfoundland! They cleared the land in the Bradner area with horses and dynamite. Sarah's grandparents bought the farm in 1937, producing milk, raising chickens and growing tulips and daffodils. In stark contrast to robotic milking today, the cows were milked by hand and milked shipped in 'cans' by horse and buggy! Sarah's father, Rob Donaldson, bought the farm in 1983 and grew the broiler, layer operations in addition to other birds. In 1992, Rob and Pat started milking 19 cows on the 'Building Program' in what is now the Golden Gate heifer barn. Martin comes from a Holstein family in Ohio, which sold the herd in 1998, sending Martin into the fitting/clipping business internationally for the next eight years. He and Sarah eventually met at World Dairy Expo (Madison) in 2008 where the Donaldsons have been avid exhibitors in the Brown Swiss show. A long distance romance ensued while Sarah was managing her parents 850 cow dairy. Fittingly, they were engaged at WDE in 2013, and married the following June. Martin is thrilled to be farming with Sarah and their 2-year old daughter, Mikaela, who appears to be perfectly at home doing chores with her mom. They passionately continue breeding for the 'complete cow' and actively pursue showing their Brown Swiss ladies annually at Madison. Highlights include their first All-American Milking Yearling in 2015 and their first 88 point 2 year old in 2013.



Lely Vector feed robot uses 'feed presence sensors' to feed on demand



Jeff and Sara Miles, managers of RJR Farms in Matsqui.

## RJR Farms

By Gary Booy

It took a construction man and a young man from a non-dairy background to create and expand RJR Farms in Matsqui. Randy Redekop (owner) runs a construction company and also owned a small beef herd, but the idea of owning his own dairy farm appealed very much to him. Jeff Miles (farm manager) got his first start in dairying at age 19 by applying for a job at Kambro Farms in Matsqui. Besides acquiring dairy farm knowledge, he also acquired the dairy farmer's daughter (Sara) who became his wife a few years later. Randy and Jeff teamed up in 2007 after Randy had purchased the farm and hired Jeff to run it. At that time, the farm consisted of 33 milk cows, two dry cows, and one heifer. Original plans were to just milk cows and not raise young stock, but today the farm milks 90 cows with equal number of young stock, so expansion was necessary. Five years ago, with an aging double-six herringbone parlour, the farm modernized to a Lely robotic milker, automatic barn scrapers, and a Lely Juno feed pusher. About a year ago, with a growing herd and not enough feed bunk space, expansion talk arose once again and ten months later, the milk herd had happily settled into their new home.



The new barn at RJR Farms

When planning their new milking herd facility, Jeff Miles (farm manager) and Randy Redekop (owner) had cow comfort uppermost in their thinking. They realized their vision in October 2016, when the herd was moved into their new 3-row, 100-cow, deep sand-bedded barn with two Lely A4 robots to do the daily milking chores. Fresh air, so vital to cow comfort, was ensured by installing a tunnel ventilation system which includes Secco chimneys, and fans and curtains which are run automatically by the Maximus Control weather station. As bedding costs were also a concern, they installed a sand lane system to reclaim used sand from their deep bedded stalls. A new calf facility was also built within the new barn.

### Farm Facts:

- Milking 90 cows, averaging 40 kgs/day
- With switch to robots and all their data, decision was made to discontinue DHIA and classification services for now
- Grow all their own crops on 200 acres & some custom work on the side
- With original expansion to one robot five years ago, cows jumped 10 kgs in production
- Besides running dairy farm, Jeff also manages Randy's 115,000 broiler bird operation, while Sara takes care of calf rearing
- Possibility of expanding to 100 cows in future

### Advantages:

- Higher production within days of moving into new facility
- Young stock were boarded out to four different facilities prior to new milking herd barn expansion. All livestock are now at home farm
- Very happy with sand reclamation for re-bedding, with major benefits of cost saving and cleanliness
- Fully automated tunnel ventilation system also works ideally for major cow comfort benefits. 7-foot fans at one end work together with automatic chimneys and curtains based on humidity, temperature, and natural wind speed to create most energy efficient air movement system
- Huge labour-saving efficiencies with new calf facility in the new barn - so easy to clean
- Now able to treat lame and problem cows swiftly and efficiently with new hooftrimming chute
- Bright lighting throughout barn goes hand in hand with cow comfort, older barn was very dark
- Second robot creates less stress and pressure on herd, enabled expansion to now 90 cow herd

### Challenges:

- With all aspects of planning and building going so smoothly and quickly, one major setback was about a two week delay by BC Hydro for hook up, causing total frustration for construction crew
- With near-perfect weather conditions for duration of barn building, one of the coldest winters in recent years put a damper on enjoyment of new facilities shortly after moving in, even though new building handled the experience very well
- For best utilization of land, new barn was built about 75 yards apart from old facility, creating a bit of a transportation issue between barns. To date cows are being trailered between barns
- Feed and bedding storage need to be incorporated into new calf barn

### Recommendations:

- Always develop a plan with the more distant future in mind
- With cow comfort being of utmost importance, Jeff is adamant when he says, "Don't make it about you - make it about the cows!"
- Kudos to working with a hardworking and efficient construction crew. Communication and planning are vital for smooth building experience.
- With decision to build new self-standing building instead of an addition to an existing structure, the whole construction process was made easier with less challenging situations

### Farm Facts:

- Milking 80 Holstein and 35 Brown Swiss cows (all registered/classified)
- 34 kg avg. 4.3%F, 3.5%P, 120,000 SCC avg. 3.5 milkings per day
- Cows graze divided 40 acres grass on 26 day rotation
- Local rented land provides winter forage supplies
- Heifers are custom pastured in Pemberton for summer
- Classification: 8 EX, 60 VG, 27 GP
- Farm also raises organic broiler chickens
- Sarah also works with Bradner Farm's hatchery, game birds and breeder birds.

### Advantages:

- Significant labour saving - Martin, Sarah plus one employee
- The robotic equipment has eliminated numerous safety risks - parlour, mixer wagons, loader tractors, PTO shafts etc.
- Comfortable barn, low stress milking, frequent milking of fresh cows reduces udder stress
- Welcome flexibility and low stress for young family life!
- Daily SCC reports allow quick action to address high cows - usually just with more frequent milking
- Rumination tracking permits very close monitoring of health
- Gravitor weight tracking alerts to potential health/ketotic issues quickly
- Activity (heat detection) monitoring works well, yielding 25% preg rate all year
- Tunnel ventilation eases summer heat stress, resulting in sustained production and reproduction!
- Vector senses feedbunk and feeds only when needed - negligible waste! Especially beneficial with grazing system - avoids feed heating over the day
- Milk taxi ensures uniform calf feeding and hygiene

### Challenges:

- Organic dairy production limits the amount and variety of some feeds
- No medicated feeds or additives allowed
- Transitioning weaned calves is tricky, since no medicated feeds permitted
- Martin and Sarah did not experience any obstacles related to the buildings and new equipment

### Recommendations:

- New technologies are complicated for the producer and cows to learn - West Coast Robotics was crucial in supporting the integration smoothly
- While they are happy with all their new systems, they are most surprised by the benefits from the tunnel ventilation - summer heat stress causes no loss of production or repro performance!
- The A4 provides tremendous management data - take the time to use it!

