

# BC DAIRY

## Growing Forward with

# Innovation

The herd was growing. The heifer barn was crowded and in great need of updating, renovating, or starting over from scratch. This was the dilemma facing brothers Greg and Vince VanderHoek of Hoek Holsteins in Agassiz. After doing their research and pricing a new heifer facility (they were shocked, to say the least), they instead decided to build a new milk cow facility. With labour frustrations, increasing incentive days and quota allocations, and interest rates at an all-time low, the brothers decided it was the right time and the right place to build the right facility for their dairy farming future.



Greg, Melvin and Vince VanderHoek of Hoek Holsteins.

### Farm Facts:

- Milking 270 cows with room to expand to 350. Production is at 1.5kgs fat per cow per day.
- With up-to-date technology in the impressive robotic milk room for many of their cow management decisions, the herd is not on classification or DHIA at this time.
- Moved to present location in 1972 and upgraded parlour in 2000.
- Farm 150 owned acres and 150 leased acres with 50% in corn production.

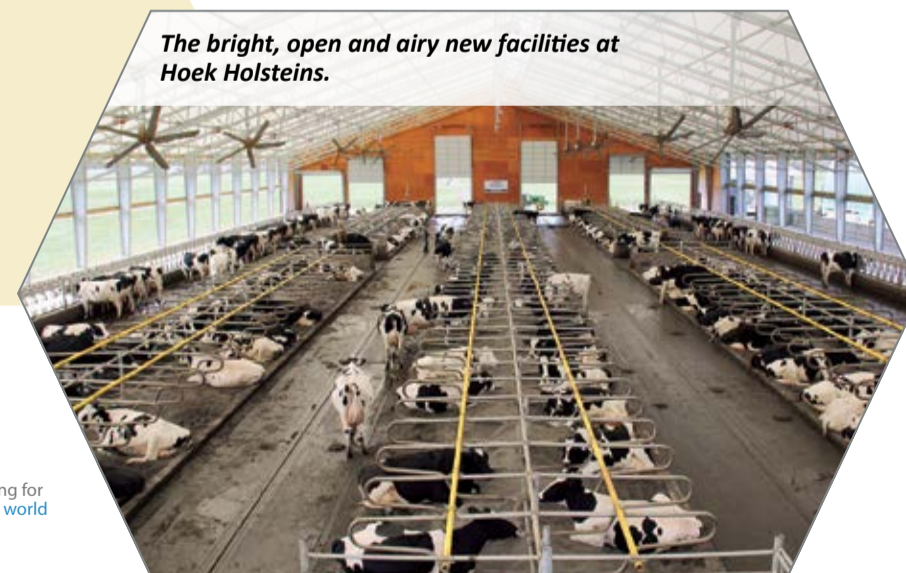
## Hoek Holsteins

By Gary Booy

Sitting in the conference room in the beautiful new dairy facilities at Hoek Holsteins, brothers Greg and Vince VanderHoek are quick to give praise and credit to their dad, Melvin, for his openness and forward-thinking in their early farming careers, willing to give them responsibility, and empowering them to make calculated decisions throughout the years, allowing them to ease into their present situation. That present situation is an ultra-modern, high-ceilinged, 400' x 140' clear span barn with perimeter feeding and six-row head to head deep bedded sand stalls, designed to handle 350 cows. Every decision made was geared towards cow comfort, and standing on the observation deck high above the cows, one can see that the goal was achieved; so much natural light from the WeCover roof and Arntjen lights, and the welcoming fresh air from the automated curtains and magnetic drive fans. They wanted and needed to build a positive animal welfare situation with plenty of freedom for the cows, which they did.

Doing plenty of research, the brothers decided that after 25 years of staffing headaches, technology and the consistency of robotics was the way to go. The journey from idea to completion was an exhausting one, admit the brothers, as there were 17 new technologies and ideas implemented in their facility, including a GEA monobox robotic milking system which has all six robotic milking boxes connected by the same software package. It was indeed quite the journey, from ideas (March 2015), to building started (June 2016), to cows moving in (March 2017).

With the next generation undecided about their futures, this project was about the brothers themselves and their future in dairying. The many tours and international guests who come to view the new dairy are testament to the fact that the brothers' new age decisions have led them to the new era of dairy farming.



The bright, open and airy new facilities at Hoek Holsteins.



Dykshoorn Family (L-R): Matt, Bud, Trevor, Linda and Melanie – comfortable and happy with the new barn build.

## B&L Dairy Farm

By Tars Cheema

Brothers Bud and Mike Dykshoorn were milking 110 cows in a conventional freestall/parlour set-up in Sumas Prairie until 1998 when Bud sold his interest to Mike and took up broiler farming. After Bud and Linda's son Matt graduated in 2002, he went to college for two years before working at Lavender Farm for the next two and a half years. When Bud started milking 35 cows in 2006, Matt came home to run the new dairy operation and demonstrated his skill and enthusiasm for dairying by ranking in the top five DHI Herd Management scores for five consecutive years! In 2016, the decision was made to take down an old barn and put up a new state-of-the-art robot facility across the road from the broiler barns. The site restrictions dictated the barn size, but it incorporated all the features they wanted without compromising cow comfort and space. Using sand bedding since the early '90's gave them confidence in udder health and comfort benefits but caused concern for mechanical wear issues. "Dad's been so good giving me input, but allowing me to make decisions. He kept encouraging me to keep an open mind on using sand – and with the simple sand-handling system we have now, I'm really glad we did," admits Matt. It's obvious that the cows are comfortable and calm in the barn, with ample space due to intentional under-stocking. Matt's brother Trevor, a ticketed welder and full time employee with Pacific Dairy, was invaluable in fabricating all the gates and fencing and installing with Matt, while also assisting with installation of the stanchions. Their sister Andrea is also part of the farm team, helping out a couple afternoons a week.



Sidewall curtains, a high open ridge, fans and open concept barn provide superior visibility and fresh air.

Years of collecting ideas from visiting other modern dairy builds provided the framework for the facility that the Dykshoorns have been milking in since January 3, 2017. The 192' x 76' open concept freestall barn has 65 milking cow stalls, a Lely robot and two very generous 24' x 30' maternity/TLC pens. High ceilings with parallel chord trusses, a ridge vent and opening side wall curtains mean super fresh air and bright visibility. Deep sand bedding adds exceptional comfort to all lying surfaces. Sand is handled with minimal difficulty with a barn scraper, flush flume channel, agitated reception pit and a 40' x 50' x 6' settling pit.

### Farm Facts:

- 41 kg, 4.0% F, 3.1% P, 75,000 SCC
- Deep sand bedding in stalls
- Sand with layer of shavings in maternity pen
- Near 100% registered, classified 80% GP
- On DHI since 2007
- 50 cows milking 3.6-3.8 milkings per day with Lely robot
- Fully AI bred, 50/50 proven and genomic sires
- 60 acres corn, 80 acres grass for silage and hay
- Winter wheat cover crop provides about 20% of forage
- Lely management data – rumination, activity, components, SCC, live weight

### Advantages:

- The efficient barn and robotic milking system yields significant labour savings
- While the barn has 65 milk cow capacity, it is under-stocked deliberately for cow comfort
- Very bright, open concept equals excellent visibility across barn
- Open walls, 3' ridge vent and fans all ensure tremendous air quality/cooling
- Feed alley on one side, no cross-overs means no risk of manure contamination
- Eight foot inner sidewalk along south row of freestalls, keeps sun off cows
- Extra long and wide freestalls bedded 24" deep sand gives unparalleled leg and cow comfort
- Sand grit adds super positive traction in alleys
- 50 cows with 65 freestalls means absolutely no stress from overcrowding
- With no parlor holding time, cows have extra time to feed and rest
- New sand system needs minimal work to handle settled sand
- Sand system has few mechanical moving parts – proactive preventative maintenance keeps system trouble-free

### Challenges:

- Though sand has many advantages, have a plan to deal with the inevitable wear on moving parts. Have a good proactive maintenance plan.
- Allow generous time for the municipal permitting process - it's a slow process with some unforeseen delays.
- When expecting to do much of the building work yourself, be prepared for the strain on your resources – it can create issues for the farm operation, especially through the busy summer season.

### Recommendations:

- Strongly endorse the 'free-flow' robotic system
- Start your research well ahead – attend farm tours, talk to owners and agribusinesses – keep notes on your likes/priorities
  - Build to guarantee no overcrowding!
- Rear teat placement is critical to uncomplicated robotic milking – be careful of high MSL ratings also. Pick bulls accordingly and start breeding well ahead for these traits.
- Build the manure handling system for ease and simplicity
  - fewer moving parts are better especially when using sand.
  - It's a fine balance to manage the PMR and robot ration – work closely with your nutritionist to ensure the best cow flow and DMI.

### Advantages:

- Lots of natural light and fresh air movement, huge cow comfort points
- With comfortable deep-sanded free stalls, SCC was reduced by 60%
- All robots are centrally located in impressive robot room for easy accessibility
- Labour-saving post-milking sorting options
- Sand bedding recycling sand lanes
- Savings from reduced labour goes a long way to paying off robots
- Western Canada's largest Joudain head locker installation
- Barn was designed to capitalize on incentive days, etc. during hot months
- Ideal test barn allowing gateway for GEA to enhance robotics for commercial dairies

### Challenges:

- Incorporating all the new and different technologies
- Being the test farm to implement many "firsts"
- Training the large herd was a big job
- Many additional animals added to original herd at start-up, increasing stress levels for cows and humans
- Almost three year project marathon led to deep exhaustion

### Recommendations:

- Don't let technology scare you
- Take time and patience for the all-important research
- Be open-minded and check all options
- From the brothers: "This industry relies on your ability to cope every day."
- They also feel very blessed to be in an industry that is so viable compared to the rest of the dairy world.

