Highlighting New & Innovative Technology from Around the Globe

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Cronin Family Farms

Amy and I have been passionate about agriculture from a young age. Growing up on dairy farms, we were both active in the barn from the time we were three. By doing chores day in and day out, we learned the importance of dedication to our animals, and through working with our parents and our involvement on the farm, we developed an excitement for agriculture. When Amy and I were married there was no question that we would farm. In 1995 we managed the start-up of a 150 acre, 600 sow farm, farrow to weaner (55 lb pig) operation. For three years we learned as much as we could about the hog industry and scratched together everything we had for a down payment. On Jan. 1, 1998 we purchased Cronin Farms Ltd. (CFL) a farrowing operation of 1,800 sows and a contract to sell weanlings. Even with hog prices at their lowest since the 1930's we were determined to make things work. Everything we had saved throughout our lives went into our farm and it was "boom or bust"!

Our farming career has been formed by continuous improvement. Through research, partnerships, and touring progressive and modern operations, we have worked to incorporate best practices throughout our farms. For me, a passion for entrepreneurialism and innovation has developed. Our farm has grown over the years to include farms of various sizes and production methods, multiple markets,

and operations in both Canada and the United States. Growth is not accidental, but rather intentional and carefully thought out. Each step of the way has been incented by an opportunity to improve current production, participate in new and emerging markets, and/or grow the business for the purpose of succession. The hog industry can be unpredictable and challenging. We believe that every challenge offers an opportunity, and that vulnerability is the birthplace of innovation, creativity and change.

Birch Grove Pork, our newest project in Iowa, was conceptualized through a desire to participate in an emerging market opportunity connected to animal welfare and production. This farm is a Global Animal Partnership (GAP) barn incorporating innovative animal welfare technology from around the world into a large-scale facility. The barn design is the result of two years of research, planning and problem-solving to meet or surpass the requirements of the GAP.

In 2008, Whole Foods Market (WFM) – a US-based natural and organic food grocer – piloted a Step-rated Program at the launch of their flagship store in London, England. With the success of the launch in the UK, WFM's co-CEO John Mackey felt that a significantly greater impact could be achieved internationally by having an independent organization own and develop a farm animal welfare certification program. In late 2008, the Global Animal Partnership was born. It has become a partnership between farmers, ranchers, producers, manufacturers, food service companies, and restaurants that continues to grow awareness and demand for GAP products.

Global Animal Partnership's 5-Step Animal Welfare Rating Program was developed with the animal's welfare as the primary focus. They define animal welfare as 3 overlapping components that, together with good management and genetics, contribute to good farm animal welfare:

- **Health & Productivity** – raising animals so that they're healthy and productive with good quality feed and water, shelter, and free from disease, illness and injury (but treating any animals that get sick).
- **Natural Living** – raising animals in environments that allow them to express their natural behaviors effectively – both indoors and outdoors
- **Emotional Well Being** – raising animals in environments that provide them the ability to be inquisitive, happy and playful and minimize boredom, frustration, fear, stress and pain, as much as possible.

The Global Animal partnership then translates these systems into standards for a variety of species under the GAP 5-Step® Animal Welfare Rating program. This system is certainly not something that we would recommend for everyone, nor do we believe that it is better than many conventional systems that are out there. We do, however, appreciate the fact that there is an opportunity to differentiate through a system such as this one to meet a demand from our consumers. Birch Grove Pork is certified as a Step One farm for a variety of reasons.

There are a number of key guidelines and measurements that we used to design our facility including: a minimum of 75% solid floor, a weaning age of 28 days minimum, antibiotic use as necessary, tagged animals and sold to a separate

market, bedding throughout gestation and farrowing, and no crates or pens. Tails are not docked and teeth cannot be clipped. Castration must be completed by 10 days of age unless completed by a veterinarian. There are diet requirements that must be met within the certification. All standards can be viewed on the Global Animal Partnership website at www.globalanimalpartnership.org.

The finished barn measures 1231 x 165, including gestation, farrowing, a small wash bay and straw storage. After looking for a farrowing pen that would suit the size required for GAP certification, we discovered that there wasn't a design that suited all of our desires. We needed a farrowing pen that was the right size, had a good creep area, had crush reduction capacity and presented ease for our team members. We worked with a local company to design a farrowing pen that would incorporate all of these characteristics. After the initial design, we tested it in our conventional barn, making many changes to allow for freedom of movement and ease of use.

We faced many challenges in the development of this facility:

- Straw distribution systems for a barn of this size are not currently available. Our goal was to limit the amount of labour required to distribute the straw throughout the barn. We were able to have a straw chopper modified to fit a 3x3x8 ft. bale, cut it to the right size and distribute where necessary.
- Biosecurity becomes more challenging as there are more materials entering the facility than in a conventional system. We have had to

reconsider all SOP's and adapt them to work with animal movement in–and-out of barn and bringing in straw for bedding.

- Animal Health can present an issue with solid concrete floors as they can hold bacteria more easily than a plastic slatted floor. We used epoxy extensively in construction and built to accommodate batch farrowing. With limited antibiotic use available we are extremely proactive.
- Manure handling required much creativity and problem solving. With the production of both solid and liquid manure a system needed to be devised to efficiently remove it in a manner that protected the biosecurity of the facility and utilized technology to reduce labour requirements.
- Scheduling labour becomes challenging as requirements vary depending where we are in the batch cycle. For 2.5 out of 5 weeks there is a need for significant increased labour supply. We have been able to utilize and offer these individuals full time work through partnership with another one of our farms. One lesson learned is that the skill set required for a barn of this nature differs significantly from that of a conventional barn. Bringing together the right team is essential.
- Our production methods are changing and require the development of new SOP's as they differ significantly from conventional systems. While we have only been in production for a couple of months, we are getting many of these processes firmed up.
- Record keeping becomes more important than ever, as everything needs to be documented and verifiable by a third-party auditor.

From the planning, to building, to start-up, many lessons have been learned. Designing a GAP facility for 2500 sows has allowed us to incorporate some of the newest innovations from around the globe and produce a barn that is state-of-the-art, GAP accredited, and producing pigs for a niche market, meeting the demands of consumers.