To Go or Not to Go Buffalo: Part C

Elliott Currie and Melanie Lang, College of Management & Economics, University of Guelph, Guelph, Ontario, Canada

March 2009 was beginning to look very promising for the van Waart farm. All 35 bred cows had calved successfully the previous month without need of veterinary assistance. The calves had been kept with their dams for the first few weeks to ensure they were healthy and the cows would drop their milk. The first truck load of milk had just gone down the farm lane off to the Superior Cheese Company of Toronto. The milk had been tested at 8.5% butterfat and 5.5 % protein. Levels double what was experienced with cattle in the first measure and 50% higher in the second measure. Still the buffalo only produced 2/3 of the volume of the Holsteins next door. The deal with the dairy was looking promising. The first truck load, and there was only going to be one truck load per week of 3 -4,000 litres of milk, was sold at $6.00 per litre. Far superior to the $0.60 they were receiving for the cow’s milk from the Holsteins.

When the next 25 cows calved in May production would increase by at least another 50% but prices were negotiated to decrease over the next year to settle at $2.00 per litre of milk when all 100 buffalo were being milked. The cow calves would not be ready to be bred for 3 years and then another 11 months would pass before they could be ready to be milked. Of course some of the cows would be dry for a few months every year resulting in production from 65 to 75 cows being double of the current production volumes. At that time the van Waart brothers were contracted to sell some milk to a south Asian Dairy in Toronto and 50 to 100 litres a week to a local artisanal cheese maker that had been most helpful in the designing and experimenting with the milk in the Food Science Labs at the local agricultural college.

Milking was a learning procedure for both the buffalo and the farmers. It appeared that the buffalo preferred one technician in the parlour over another. The feed had to be available while the cows were being milked and at times the calf had to be present to ensure the cow did indeed drop her milk. Still the feed costs were lower than expected. The buffalo seemed quite content to eat low quality hay that the brothers would never feed to the Holsteins in farm next door. Overall cost for feed was almost half what it cost to feed a Holstein. The Buffalo were still gaining weight and becoming more at ease in their new surroundings. Some even appeared to have enjoyed the snow the past winter.

Now that the milk was starting to sell the brothers looked to what else they could do with the products of the buffalo. Approximately half of the calves were male and would be prime animals for meat when they attained a weight of 1000 to 1200 pounds (500 – 550 kg.), likely within 12 to 18 months. Some of the cows were not milking well and unless their production was adequate they too would be candidates for meat production. A difficulty with the original herd was that they would still need to be processed through a federally licensed abattoir. Any offspring were eligible for the provincial abattoirs.

The United States Department of Agriculture and government of the Northern Territory of Australia had published data identifying that Buffalo meat was potentially one of the healthiest of the red meats available. It should be noted that the North American Bison, though sold as healthier than beef as a red
meat, was eclipsed by the lower cholesterol of Buffalo which was reported to be lower than even chicken. The results of the Australian government’s opinion of the healthiness of buffalo meat are listed below.

Table 1: Nutritional analysis of meat types per 100 g of raw lean edible portion

<table>
<thead>
<tr>
<th></th>
<th>Energy (kJ)</th>
<th>Protein (g)</th>
<th>Iron (mg)</th>
<th>Fat (g)</th>
<th>Cholesterol (mg)</th>
<th>Saturated fat (mg)</th>
<th>Monounsaturated fat (mg)</th>
<th>Polyunsaturated fat (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Buffalo</td>
<td>416</td>
<td>20.4</td>
<td>2.1</td>
<td>1.4</td>
<td>46</td>
<td>0.86</td>
<td>0.42</td>
<td>0.29</td>
</tr>
<tr>
<td>Beef</td>
<td>502</td>
<td>22</td>
<td>2.2</td>
<td>3.7</td>
<td>60</td>
<td>1.6</td>
<td>1.52</td>
<td>0.24</td>
</tr>
<tr>
<td>Bison</td>
<td>223</td>
<td>19</td>
<td>2.6</td>
<td>2.4</td>
<td>70</td>
<td>6.8</td>
<td>6.22</td>
<td>0.74</td>
</tr>
<tr>
<td>Chicken</td>
<td>506</td>
<td>21</td>
<td>1.1</td>
<td>4.2</td>
<td>69</td>
<td>1.18</td>
<td>1.81</td>
<td>0.47</td>
</tr>
</tbody>
</table>

The brothers were concerned about who would buy the meat. They had contacted the professor at the Agricultural College and some students had spent over 6 months exploring the market for the meat. Their findings showed that the primary market for the meat was again Toronto but primarily among the Pakistani, Indian and Egyptian communities. It was advised that the meat be Halal certified and hence there were few approved processors, but there were some. Interest though was limited. The butchers appeared more concerned with costs and ensuring that there was a proven market. All the Halal butchers were provincially approved and the primary candidate was limited to animals under 1400 pounds (600 kg.)

The other concern was that when the animals were processed the hides also had to be sold and there was only one tannery left in Ontario, a small operation as well. The hides were very different than cattle as they could be split up to 3 times versus once for cattle hides. Most hides in Canada were exported and that would likely be the case with these as well. To whom and for how much was up in the air. And they still had to decide what to do with the remaining herd in Florida. There had been no calving there nor any planned.

1. What issues should the brothers focus on for the buffalo farming now?
2. What is their financial perspective and outlook as the farm progresses?
3. What course of action should they take regarding the meat and hides and the Florida herd?

---

1 Department of Primary Industry, Fisheries and Mines © Northern Territory Government, Australia, 2006