

The beef industry: Charting a successful course

by Mary Lou Weiser-Hamilton

Lloyd Mitchell is convinced that crossbred cattle are the breed of the future. And he has developed a breeding strategy to improve his cow/calf herd and create ideal performance-tested cattle on his Annan area farm, near Owen Sound.

Using cross-breeding to get hybrid vigour, Mitchell is breeding cattle that will use home-grown rough ages to produce an A-1 carcass of 320 kg at 12 to 15 months of age.

Developing an ideal cross is a slow process, usually of trial and error, but Mitchell is pleased with the results from his Shorthorn/Salers cross. While nearly all breeds are represented in his 95-cow herd, the purebred Shorthorns are a majority.

Several factors drew him to the Shorthorns, including their good milking ability, fast growth, easy calving and consistent cad size. But choosing the Salers was quite accidental: Mitchell knew very little about the breed until he purchased Shorthorn cows which were bred to Salers.

When Mitchell builds his herd up to 120 cows, he hopes to develop an F1 heifer market, similar to the hog industry, from his Shorthorn/Salers cross, based on performance and reputation. Now he keeps the best of the heifer offspring from the F1 cross and breeds them to Charolais bulls because he likes the Charolais rate of gain. The results speak for themselves.

The herd's average weaning weight has increased by nearly 45 kg in 4 years, while the average yearling weight has increased by 70 kg. In one example, a Shorthorn heifer born in 1984, with a weaning weight of 222 kg and yearling weight of 345 kg, was bred to a Salers bull and produced a heifer that weighed 290 kg when weaned and 381 kg as a yearling. This heifer then had a calf with a weaning weight of 307 kg and yearling weight of 505 kg when bred to a Charolais bull.

Mitchell used Charolais cows in his initial breeding program but found they lacked fertility, had calving difficulty, and weren't good mothers. Fertility and calving ease are important factors in Mitchell's breeding program. His cows are checked for pregnancy in the fall and culled if still open after the 60-day breeding season. He also takes the pelvic measurements of potential breeding heifers each spring to help determine their calving ease.

When Dr. Alex Strong (Wingham) measured pelvises in 1989, Mitchell had him test a Charolais for comparison with the Salers heifers. After examining the results, Mitchell felt he was making the right breed choices. A 288 kg Shorthorn/Saler heifer had a 189 sq. cm pelvic opening while a 488 kg Charolais had slightly less at 182 sq. cm, this despite the fact that she was 45 days older and 200 kg heavier. Both were on the same feeding program.

In 1989, Mitchell kept 11 Shorthorn/Salers heifers and two Hereford/Salers heifers to which he bred Charolais, and three Shorthorns to which he bred Salers. With the exception of three "easy pulls", none of which required a calf puller, the heifers calved by themselves with birth weights ranging from 28 to 46 kg. "The Salers seem to have the pelvic opening to handle big calves," he says.

All heifers are kept from the time they are weaned in late fall until spring. Replacements are then selected to go to pasture and stay with the bull from May 1 to June 30. The remainder are either sold or finished. Mitchell breeds his heifers to calve at least a month before the rest of the cow herd. "We're more alert then. Instead of watching 100 cows, we're watching only 20 heifers." Heifers are just under two years of age and about 455 kg when they calve.

Mitchell sells his steer calves to his father, Roger, who farms close by. Mitchell's brother, Ken, operates an 85-cow herd cow/calf operation nearby, and also sells steer calves to Roger. For the first time last year, no outside calves were purchased to fill the 100-head feedlot.

The three men share labour and machinery, but each owns his own cattle and property, and also rents land individually. Lloyd owns 160 acres and rents an additional 500. The three men own or rent a total of 1,200 acres. Mitchell has a Junior Agriculturalist helping out this year. His wife, Pat, is a milk tester, but also helps on the farm when she can.

Roger Mitchell grows about 20 acres of corn silage and uses it to feed the steers from self-feeding bunker silos. Lloyd does not grow corn silage for his own operation. Instead, he planted 70 acres of barley and mixed grain this year to feed the replacement heifers and finishing heifers, which the two brothers finish jointly in a separate feedlot. The finishing heifers receive only barley and hay. Replacement heifers receive 2.5 kg of grain plus supplement daily, for an average daily gain of 0.75 kg.

Disease problems in the feedlot have been minimal. Mitchell attributes this to the preconditioning that all calves receive prior to weaning. They are started on 2.5 kg of 14 percent medicated grain ration and free-choice hay. Once started, they get free-choice corn silage along with 2.5 kg of grain and free-choice hay from round bales.

Hay is the most important crop for the Mitchells. Last year, they baled 2,600 round bales and 25,000 square bales. They reduced the number of square bales to 10,000 this year to decrease labour input and increased the number of round bales to make up the difference. Mitchell likes the ease of handling the 1.25 x 1.4m round bales, and adjusts his feeding

methods to accommodate them. The two brothers built a 14 x 11.5m addition to the north end of Lloyd's barn where round bales are now stacked three or four high; 200 round bales can be stacked in addition, enough to feed the 15 heifers housed in the barn last year. Mitchell places portable gate feeders at the edge of the addition and rolls the bales to the heifers. The bales are easily rolled by one man and the partitions are moved forward as the mow recedes. All of the hay that the Mitchells bale is stored inside.

Mitchell chores at four barns, including his own. Given the ease of feeding round bales, he could feed the cattle at all the barns in one hour if he were in a hurry. He keeps 45 of his own cows in a rented team, custom feeds 35 cows at another, and chores at the feedlot where the heifers are finished. Heifers for breeding are kept at his barn.

Last winter, Mitchell kept 45 cows in the bush from December till March, then they were brought to the barn for calving. While it took a while for the cattle to realize their temporary home was not the barn, they adapted well in the sheltered bush. Round bales were hauled to them every second day.

Mitchell harvests about 200 acres of hay from his own farm and finds that he has more than enough feed. He is reluctant to cash crop the hay, particularly when round bales are selling for only \$9 to \$10 each. He intends to custom feed 35 cows again this winter, allowing him to get a better return for his surplus crop. When he increases his herd to 120 cows, he believes his own feed will be fully utilized. Eventually, he hopes to finish all his own steers too, if profitable.

Mitchell takes advantage of cattle rotation to use his pasture during the grazing months. The cattle are kept in three separate groups and cow/ calf pastures are rotated every 2 to 7 days. The cattle come when they are called from pasture to pasture, and electric wire is used to confine them. Cattle are also pastured on second-cut hay and grain stubble.

Most pasture fields were hay fields at one time. Mitchell underseeds grain fields with a 90 percent alfalfa and 10 percent timothy mixture. Some fields, which have only a foot of topsoil before bedrock or have boulders, are frost-seeded in mid

March to help rejuvenate them.

Using a broadcast seeder with his all-terrain vehicle, Mitchell is able to seed about 10 acres an hour. The seeder holds 23 kg of trefoil and white clover seed and can broadcast Hum. Trike-seeding enables him to seed in many conditions, including muddy fields and snow. He also custom seeds between 200 and 300 acres for other farmers in the area, charging \$2 an acre for land close to his farm.

The custom frost-seeding business is growing. Mitchell could take on more work, but mid-March is also calving time and he doesn't like to spend too much time away from the farm.

Mitchell says he is happy with the results from frost-seeding. The seeds work their way into the ground through its thawing and freezing action. Most of the seeds germinate, although not all of the seedlings grow, especially if the spring is dry.

The Mitchells attribute much of their success to family's sharing of machinery and labour. Developing an F1 heifer market is a slow process, much slower than in the hog industry, Mitchell adds. "A farmer can get 20 pigs in a year but there's only a 50 percent chance that it's a heifer."

The process may be slow, but with Mitchell's breeding strategy and dedication, it will no doubt be successful.

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