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Reproductive Performance Starts with the Bull: Building a More Productive Cow-Calf Herd

In Ontario's cow-calf sector, reproductive performance is the foundation of profitability. Every healthy calf that reaches weaning represents the combined success of nutrition, herd health, management, and genetics. When cows conceive early, calve within a short window, and raise vigorous calves, producers benefit from a more uniform calf crop, heavier weaning weights, and improved labour efficiency. Conversely, poor reproductive performance leads to open cows, extended calving seasons, and fewer pounds of calf to sell.

Ontario cow-calf producers should aim for pregnancy rates above 95 per cent and weaning rates over 90 per cent. Achieving those benchmarks requires cows to maintain adequate body condition, receive balanced nutrition and mineral supplementation, and follow a sound vaccination and parasite control program. Yet even with excellent cow management, herd fertility can falter if the bull is not capable of doing his job.

The bull often has the greatest influence on reproductive success. One mature bull may breed 25 to 40 cows in a season, contributing half the genetics to every calf born. If he is infertile, unsound, or genetically mismatched to the operation's goals, the impact can be significant. A single subfertile bull can leave a large number of cows open, reducing the calf crop and profitability for this year and years to come.

Because of this, purchasing a bull from a reputable breeder should be viewed as a long-term investment rather than a one-time expense. A quality bull may seem expensive on sale day, but when his cost is spread over several breeding seasons and dozens of calves, the investment per calf is often modest. The true value of a bull lies in his ability to settle cows consistently, sire calves that meet market demands, and produce daughters that remain productive for years.

The first step in evaluating any bull is a breeding soundness examination. Conducted by a veterinarian several weeks before turnout, this exam assesses semen quality, scrotal circumference, reproductive anatomy, and physical condition. Studies routinely show that 10 to 20 per cent of bulls fail these evaluations, even when they appear healthy. Identifying problems before the breeding season can prevent substantial financial losses.

Structural soundness is equally important. Bulls must be able to travel across pasture, mount cows, and breed repeatedly over a relatively short period. Weak feet, poor leg structure, and lameness are among the most common reasons bulls are culled prematurely. Producers should pay close attention to how a bull walks and whether his conformation suggests durability under your farm's breeding season conditions.

Genetics also play a central role in bull selection. Expected Progeny Differences (EPDs) provide estimates of how a bull's offspring are likely to perform. For producers retaining replacement females, maternal traits such as milk production, calving ease, and longevity are especially important. Those focused on feeder calf sales may place greater emphasis on growth and carcass merit. The best bull is not necessarily the one with the highest numbers, but the one whose genetic profile aligns with the operation's specific goals.

Calving ease deserves particular attention when selecting bulls for heifers. Difficult births increase labour requirements, veterinary costs, and calf mortality, while also delaying the heifer's return to estrus. Bulls with strong calving ease EPDs and moderate birth weights can help reduce these risks and improve long-term reproductive performance. The most profitable heifer is one that has a calf unassisted, mothers it without intervention and breeds back at the start of breeding season. The size of the calf she weans in her first year has limited impact on farm profitability if she achieves the rest of her job.

Crossbreeding remains one of the most effective tools for improving reproductive efficiency.

Benefits include:

- Higher conception rates
- Increased calf survival
- Improved longevity
- Better maternal performance

Commercial producers can capture significant heterosis by selecting bulls from complementary breeds suited to their market and environment.

Once purchased, bulls require proper management to maintain fertility. Young bulls should continue to grow without becoming overly fat, as excess condition can impair both soundness and reproductive performance. Vaccination, parasite control, and adequate exercise are essential. Newly acquired bulls should be given time to adapt to their environment before the breeding season begins.

During breeding season, bulls should be observed regularly. A bull may pass a breeding soundness exam yet sustain an injury or experience reduced libido. Monitoring activity and body condition can reveal problems before too many breeding opportunities are lost. Pregnancy checking in the Fall then provides a clear measure of how effectively the breeding program performed.

For Ontario cow-calf producers, reproductive performance remains the single most important driver of profitability. Nutrition, herd health, and management all contribute, but the bull has an outsized influence on the number and quality of calves born each year. Selecting fertile, structurally sound bulls with genetics that match herd objectives is one of the most effective ways to build a more productive and profitable cow-calf enterprise.