

Backyard Beef and

There are many benefits of raising your own food. Here in Wyoming folks with a few acres of land can grow a garden or raise small livestock, like poultry, to feed themselves, their friends and neighbors. Some, however, go a little bigger than chickens and utilize a portion of their space to raise their own beef. Raising your own beef can be a great way to be self-sufficient and eat a product you will enjoy.

Raising beef allows you to know exactly where your meat comes from. You can control how cattle are managed, where they live and how they are fed. Beef can be

managed for exceptional quality/taste, grass-fed beef, all-natural beef or whatever you prefer. Raising your own beef may also be an economical alternative to buying beef at a retail store. However, successfully raising your own beef year after year requires planning and an optimization of the process. Artificial insemination (A.I.) is a tool that can make the process of raising your own beef much easier.

The tool of artificial insemination

A.I. is a physical process completed by a trained technician where semen from a bull is used

to impregnate a female cow or heifer without the bull and cow ever interacting. A.I. can provide managers with some great options for improving genetics, potential money savings, and changing herd genetics more quickly than a more traditional approach of buying bulls each year when used correctly.

The genetic portion of a small beef herd is equally as important as the management and nutrition. Good breeding decisions can help to dial in what the beef product could look and taste like. Most cattle fed out for beef will be 12–22 months old at the time of harvest. The steer or heifers'



Artificial Insemination

feeding program will determine how old they will be when they are “finished” (have reached a desired weight and fat content) and are ready for harvest. Genetics and breed characteristics play a huge role for how an animal is finished. A.I. can quickly swing these characteristics in favor of managers over a relatively short time frame.

Why use A.I.

A common dilemma for people who have a few cows in their pasture is access to a bull to get their cows bred or re-bred. Usually, it is not worth the hassle or expense for small-scale producers to own a bull throughout the year just to breed a few cows. It is common for these people to borrow the neighbor rancher’s bull or turn their cows out with the rancher’s cow herd for a period of time. This scenario can be a pain to navigate, and it rarely gives much leeway to be selective about breeding combinations. Using artificial insemination avoids these challenges. A.I. allows beef producers of all sizes the option to purchase and store semen in a liquid nitrogen tank until breeding. The semen can come from beef sires anywhere in the country and have industry leading high-accuracy premium genetics for calving

ease, marbling, ribeye area or other desired traits. By purchasing semen at a fraction of the price of a live bull, a beef producer can control the breeding combination that takes place with each of their cows or heifers. Semen can be ordered from various semen sales companies and shipped in a temporary nitrogen tank to your door.

Another huge advantage to A.I. is the beef producer can control when and where the breeding process will occur. This helps the producer better know when calves will be born. When using A.I. it is common to implement an “estrous synchronization protocol.” Estrous synchronization involves manipulation of reproductive hormones (via feed additives, injections or implants) in a female animal so it is possible to accurately predict when she will be receptive to breeding. Synchronization also allows beef producers to concentrate labor and breed multiple females at a specific time. It also allows them the ability to space their breeding out so cows and heifers can be managed separately. Heifers can be more challenging to manage when giving birth. Breeding heifers earlier and separating them from the cows allows for concentration of labor during their critical calving

period. Separation also allows heifers to calve earlier in the calving season and more recovery time leading up to their second breeding season.

Perhaps one of the biggest benefits to A.I. is knowing when the cows will be expected to calve. Gestation of a cow is approximately 283 days from breeding. Synchronizing the estrous cycle and knowing the cow’s exact breeding date lets you mark your calendar and be prepared when the calves come.

Direct marketing meat locally is increasing in popularity in Wyoming, especially with our state’s improving capacity for meat processing. Raising beef on a small-scale allows local consumers options besides what is available at the grocery store. Niche markets exist for grass-fed, all-natural, hormone free, GMO free and other specialty value-added products such as Wagyu beef. Wagyu beef (or Kobe beef as it is known in Japan) is known for its excessive marbling that far exceeds USDA Prime standards. Meat from the Wagyu breed is regarded as some of the best tasting in the world and is generally valued at a premium. Access to Wagyu bulls can be difficult to find and extremely expensive. However, Wagyu semen is much easier to find and might

only cost \$30 for a unit of frozen semen. The Wagyu breed also is known for calving ease and can be used in most all ages of frame sizes of cows. Therefore, it is becoming more and more common for small scale producers with a

few Angus-based cows to artificially inseminate with a Wagyu bull and raise their calves for premium quality beef that can be sold locally or kept for themselves. Some niche products like Wagyu beef or grass-fed beef usually take more

days on feed to finish compared to conventional production. While these products may be a challenge for large scale producers, it could be an opportunity for small-scale producers.

A.I. challenges

There is a downside to artificial insemination of cattle that prospective beef producers should be aware of. It takes training and practice. Multiple A.I. schools are offered through UW Extension every year. Other opportunities also exist for A.I. training outside of Wyoming. Additionally, there is an initial upfront cost associated with obtaining the equipment needed to store semen and handle it for the breeding process. Anybody who wants to own their own cows and A.I. them will need adequate facilities to handle their cattle regularly during the A.I. process. Access to a corral system with a functional squeeze chute is a must.

Owning a few cows and raising meat yourself can be a great way to be self-sufficient and create a desirable product for you or others in your community. Artificial insemination can be a great tool to make raising your own beef possible!

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UW Extension A.I. school participants palpate cows each afternoon of the schools. Portable custom-made chutes allow schools to take place in various locations and for palpation of up to 16 cows at one time.