

## Tips For A Successful Artificial Insemination Experience

By Les Sales, DVM

With so many different estrus synchronization protocols, it's no wonder that only about 8% of beef procedures nationwide currently use artificial insemination (A.I.), according to Sue Roester, from Farm and Ranch Guide Publication. As a veterinarian, former dairymen, and currently a commercial beef producer, I understand the challenges of developing a protocol to fit the producers' needs and facilities. I stress facilities. Adequate facilities and the ability to put the cows through a chute multiple times at specific intervals can determine the success of your program. Estrus synchronization is controlling one event: ovulation. With most timed A.I. protocols, you will not find the cow in heat, eliminating heat detection. Notice I said "most protocols." Some simple protocols utilize heat detection for three to five days prior to giving an intramuscular injection of a prostaglandin such as Lutalyse® or Estrumate®. This would not be a timed A.I. situation and heat detection is a must. It is a simple protocol, and cows bred after an observed standing heat have a higher conception rate than timed A.I., but you will miss a lot of cows. Let me give you an example.

100 cows:

70% estrus detection    70% conception    49 pregnant

100 cows:

100% bred cows            60% conception    60 pregnant

This example shows the benefits of a whole group timed A.I. protocol. It's not the purpose of this article to articulate the pros and cons of using A.I.; you already know the pros. As a producer I stress calving ease, weaning weights, a positive scrotal circumference score,

and docility as criteria in bull selection traits. To me one of the biggest benefits of using A.I. is creating a more uniform calf crop and developing a better replacement heifer for personal use or sale. The market is as strong for good replacement heifers as I have seen.

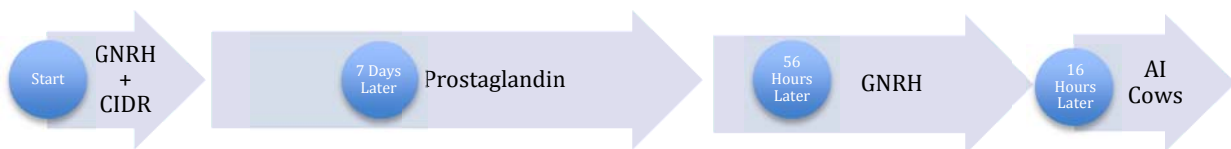
I have already stressed facilities. Even more important is the condition of your cattle and your overall herd health and vaccination protocols. I personally like the use of modified live vaccines (MLV) given to open cows a minimum of three weeks prior to starting any breeding protocol. Modified live vaccines (MLV) have a lot of advantages over using killed products. Consult with your local veterinarian if you have never used an MLV. Killed products require two injections 3-6 weeks apart to initially start a vaccination protocol. After the initial injections, the killed vaccine is administered yearly.

Your local veterinarian is your best source for information regarding both products and vaccine protocols to fit your herd's individual requirements and marketing strategy. Please don't forget about internal and external parasite control as well as a well-balanced mineral program to fit your herd and season of the year. This all leads to proper body conditioning of the cowherd prior to a timed A.I. protocol. You don't want them to fat or too thin. A minimum body conditioning score (BCS) of five (5) is adequate to have a successful A.I. protocol. A cow that is gaining weight is more reproductively sound. Even more important is to keep that cow from losing weight after becoming pregnant. New research has shown that cows losing weight have an increased chance of embryo death and pregnancy termination.

Now the question is: What protocol do I choose for my cowherd? Heifer protocols can be extremely different. Ask yourself: How many times do I want to put the cow through the chute and what

products are required? Is cost and labor a factor? These are legitimate questions we have to ask ourselves because protocols do differ.

The physiology of the estrus cycle and manipulation of the ovulation is complicated. The research on estrus synchronization protocols is extensive, ongoing, and changing. Some protocols do yield better conception rates. A protocol that has worked for me with my personal beef herd is the Ovy-synch 56 utilizing a CIDR. To initiate the program, an injection of GNRH (Cystorelin®, Factrel®, Fertagyl®, or Ovacyst®) is given deep in the muscle of the neck area with an 18 gauge 1 ½ inch needle, and the CIDR is inserted intra-vaginally. On the morning of the seventh day the CIDR is removed and the cow receives an injection of prostaglandin (Lutalyse®, Estrumate®, Prostaglandin®, In-sync®, or EstraPlan®) deep in the muscle of the neck area with an 18 gauge 1 ½ inch needle. On the evening of the second day (56 hours later) following CIDR removal and prostaglandin injection, a second injection of GNRH should be given in the same manner as before. After the second injection is given, the cows are inseminated starting 14-16 hours later.



For example: Monday give GNRH and insert CIDR. The following Monday morning remove the CIDR and give an intramuscular injection of prostaglandin. Wednesday evening give the 2<sup>nd</sup> shot of GNRH. On Thursday morning breed your cows.

I know I will be criticized for bringing the cow through the chute one extra time and for the expense of the drugs, but I consistently get conception rates greater than 75%. This is just one of many timed A.I. protocols available to producers. Consult with your local veterinarian or A.I. organization to determine which protocol is best for you. If you have any questions or comments, please feel free to e-mail me at [wcvs@nu-z.net](mailto:wcvs@nu-z.net).