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FERTILITY PROBLEMS AND REPRODUCTIVE MANAGEMENT OF DAIRY COWS TREATMENT PROTOCOLS

Fertility in lactating dairy cows seems to have gradually decreased over the last 50 years as genetic selection has concentrated more on milk production and less on conception rates and cow health. This is being corrected but significant improvements will be slow in coming. Cow health plays a major role in fertility. A cow that has not yet started gaining weight back after freshening will be harder to get bred. The egg starts to develop 60 days before ovulation so looking back to the condition of the cow 2 months previously can help predict fertility. Heat stress or poor cow health will decrease heats and conception 60 days after the fact. That is why dairymen see good heats early after freshening (60 days after the dry period when the cow is the least stressed) and poor heats at breeding time (60 days after freshening when the cow is most stressed).

Further complicating the issue, many modern dairy farms do not have the time or manpower to effectively detect cows in heat. Fortunately, some hormonal treatment protocols are now available that produce fertility equal to (but not better than) good heat detection.

First, aside from uterine infections, anestrus and cystic ovaries are the 2 most common fertility problems found in dairy cows. Anestrus refers to a cow that is not cycling; examination reveals ovaries that are small and without structures. Cystic ovaries refers to ovaries where large fluid-filled structures are found on the surface of the ovaries. Signs of cystic ovaries can be no heat or frequent heats at irregular intervals. Both conditions are usually treated with GNRH (Cystorelin, Factrel, Ovacyst, or Fertagyl) initially and then, if the treatment is successful, the cow is started into a Timed Artificial Insemination (TAI) program or monitored for heat.

There are many versions of TAI protocols. Described here is the basic Ovsynch sequence.

First, determine the Voluntary Waiting Period (the number of days after freshening that you wait before breeding the cow). This is usually 55 to 65 days post-calving. At 10 days prior to the TAI date, give GNRH. Seven days later, give prostaglandin (Lutalyse, Estrumate, or Prostagmate). 48 hours later, give GNRH. 16-24 hours after that, breed. The cows will likely will not show heat signs and the uterus will not have the tone felt with a natural heat.

Presynch refers to giving prostaglandin at 2 and 4 weeks prior to starting the Ovsynch protocol. This helps have the ovaries better synchronized to start Ovsynch.

Resynch refers to giving GNRH one week prior to pregnancy diagnosis, assuming that is at 35-40 days after breeding. GNRH will not affect pregnancy. If the cow is open, she can be given prostaglandin and bred again with the Ovsynch protocol.

There are many variations of this using different timing and using other treatments like CIDRs. These variations can be discussed if needed.

None of these drugs have milk or slaughter withholding. **THESE ALL CAN CAUSE SERIOUS REACTIONS IN HUMANS, ESPECIALLY PREGNANT WOMEN, AND EXTREME CARE MUST BE TAKEN TO AVOID CONTACT WITH THESE SUBSTANCES.**