

**CLIENT MEETING!** We have a great idea this year for a client ‘get together’. Pat Hoffman (Marshfield Ag Experimental Station) spoke last fall at the Wisconsin Veterinary Conference regarding common sense feeding and raising of heifers. He gave a great no-nonsense down-to-earth talk about what it takes to effectively raise heifers through calving. It was so good that I asked him to come and talk to central Wisconsin dairymen about raising heifers. Pat will be at Fannies on the evening of Wednesday March 29. We set the time at 7:30, with his presentation beginning 8pm. After an informative presentation, Pat is always open to questions. Please come, bring an interested friend, and bring your questions!

**‘NORMAL’ PREGNANCY LOSS:** Last month we visited the concept of conception rates, and what should be reasonably expected from natural service to breeding on heat, to timed AI. Miss it? We have copies, or it should soon be at the newsletter archive section of [grasslandvet.com](http://grasslandvet.com).

So now you have a cow diagnosed pregnant. What is considered the ‘normal’ likelihood of pregnancy loss (early embryonic death or abortion)? The answer is, it depends. It depends on how far along the pregnancy has developed. Likelihood of pregnancy loss is greater early in pregnancy than later. For example, 1600 pregnancies were followed in a herd averaging 22,000# milk. They found that of pregnancies diagnosed at 28 days by ultrasound, 24.7% were lost between 28 and 280 days. 24% sounds high, but various factors were found which affect the percentages.

Here are the **details** in herds diagnosing pregnancy early via ultrasound (28 days). Findings indicate a normal rate of pregnancy loss between 28-40 days to be 11%. Pregnancy loss from 42-90 days varied, but another 5-10 percent wasn’t unusual. Pregnancy loss after 90 days was found to average 5%. Survivability of fetuses apparently is highly variable. As a result, recommendations are now to wait to diagnose pregnancy until 39-40 days bred, followed with a confirmation check later. Semen quality, breeding policy, and environmental stress are the factors affecting embryo life.

**Sperm effect:** AI bulls with low ERCR (estimated relative conception rate—a measure of a bull’s ability to achieve conception) were more likely to result in pregnancies that failed. Obviously low ERCR bulls have poorer quality sperm. **Timing effect:** when cows are bred late in their heat period, the sperm either has inadequate time for ‘capacitation’ (sperm is always physically altered in the cow, which allows conception) or later breeding allows more sperm to survive, including poor quality sperm. Then lower quality sperm cells have a better chance of fertilizing the egg. Thus, the later in the heat time period a cow is bred (closer to ovulation), the more likely she is to have a poor quality embryo, resulting in death. Dairymen frequently experiment with timing when breeding cows on standing heat, and it can have a big impact. In contrast, timing in ovsynch programs favors breeding earlier in the cycle relative to ovulation and lowers the likelihood of embryonic death. Overall it is more desirable to breed early in a cow’s heat period, providing more vigorous embryos and better survivability. **Environmental stress:** heat stress is studied the most. Embryos conceived in hot weather tend toward poorer quality. Bull sperm is affected dramatically in hot weather. This affects the quality of the embryo after fertilization. **Leptospirosis** should be investigated also if early fetal loss or failure to conceive is a problem in your herd.

Whatever the cause, many farms have now adopted the good policy of ‘confirming’ pregnancies. A cow frequently is first examined pregnant 35-60 days bred. It’s ideal if open cows are found before their 2<sup>nd</sup> repeat (42 days). We then recommend at least one pregnancy *confirmation check* after that initial exam. Some farms do so the following month, some at 90 days pg, some prior to dry off. A ‘confirmation’ exam reduces the odds of finding an open cow at dry-off or when she’s ‘supposed to’ calve. If the fetus isn’t going to survive, it’s best to find the cow open as soon as possible.

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