

## **Postpartum Use of PGF**

Luteolytic prostaglandins, either prostaglandin F 2-alpha or its analogues (PGF), are given to dairy cows within the first 40 days postpartum to speed the clearance of uterine infections, improve reproductive tract health and fertility, and reduce days open. Hormonal therapies are considered an effective alternative to antibiotic therapy to avoid antibiotic residue violations. Considerable scientific research has investigated the most efficient and effective use of postpartum hormonal therapies. The following conclusions and suggestions result from my review of the major studies published since 1980.

### **Conclusions**

There appears to be no advantage to routinely treating postpartum cows with PGF in herds when days open are less than 100 days but some value may result when the days open are greater than 100 days.

The reduction in days open is effected through an improvement in first service conception rate if this is less than 50% prior to treatment. If first service conception rate is greater than 50% prior to PGF treatment, there will not be a substantial reduction in days.

Several factors may prevent the potential positive impact of routine postpartum PGF therapy. These include accuracy of heat detection, fertility of semen used, technique of the inseminator, and cow fertility.

PGF treatment of cows with peripartum health disorders including dystocia and/or retained fetal membranes is likely to improve reproductive health.

One study showed reduction in *Actinomyces pyogenes* bacteria from the uterus of cows treated with PGF at 26 days postpartum when evaluated at 40 days postpartum.

### **Recommendations**

First service conception rate and days open should be evaluated prior to initiation of routine administration of PGF in the postpartum period.

To evaluate the effect of routine PGF treatment, careful cow monitoring and record keeping must be performed.

Herds with excessively high days open should be selected. The greater the days open, the greater potential benefit.

To benefit economically from this regimen, first service conception rates must improve by about 10%. Therefore, the greatest benefit will be in herds starting with first service conception rates of 40%.

Cows with peripartum health disorders should be treated twice with PGF at a 2 week interval with the first treatment at 14 - 28 days in milk.

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