



### Procedures

Exp. 1. Dairy cows (n=223) that had not been observed in heat and bred by at least 6 wk postpartum were presented to herd veterinarians at a routine herd visit. Those cows with a palpable corpus luteum were assigned alternately to be an untreated control or to receive PGF (5 cc Lutalyse®). Cows were inseminated when observed in heat. If heat was not detected by 72 hr after PGF, cows were inseminated at 72 and 96 hr. If cows showed heat after 96 hr, they were reinseminated.

Exp. 2. Cows (n=85) with unobserved estrus after insemination and diagnosed open at pregnancy examination were assigned to a control or PGF treatment group as in Exp. 1 if a corpus luteum was palpated. Cows were inseminated as described for Exp. 1.

### Results and Discussion

Exp. 1. Intervals from treatment to heat, first service, and conception were shorter ( $P<.01$ ) for cows receiving PGF than for controls (Table 1). Conception occurred 22 days earlier ( $P<.01$ ) for treated cows than for controls. First service conception and cumulative pregnancy rate were similar for control and treated cows.

Table 1. Dairy cows not inseminated because of unobserved estrus (Exp. 1)

Item	Control	PGF
Treatment to heat, days	23.1	3.1 <sup>a</sup>
Treatment to AI, days	23.4	2.9 <sup>a</sup>
Treatment to conception, days	59.3	37.2 <sup>a</sup>
Conception at first AI, %	39 (27/69)	43 (57/133)
Cumulative pregnancy rate, %	88 (61/69)	86 (114/133)

<sup>a</sup>Less than control ( $P<.01$ ).

Exp. 2. Intervals from treatment to estrus and first service were shorter ( $P<.01$ ) for treated cows compared with controls (Table 2). Time from treatment to conception tended to shorter by 16.5 days for cows given PGF compared with controls. As in Exp. 1, first-service conception and cumulative pregnancy rates were similar between groups.

Table 2. Dairy cows open at pregnancy examination with unobserved estrus (Exp. 2)

Item	Control	PGF
Treatment to heat, days	19.6	3.3 <sup>a</sup>
Treatment to AI, days	20.5	3.0 <sup>a</sup>
Treatment to conception, days	45.6	29.1
Conception at first AI, %	52 (16/31)	44 (19/43)
Cumulative pregnancy rate, %	84 (26/31)	81 (35/43)

<sup>a</sup>Less than control ( $P < .01$ ).

#### Recommendations

Treating unobserved or silent estrus with PGF will reduce conception intervals. If a corpus luteum is present, treat cows with 5 cc lutalyse® or 2 cc Estrumate®. Observe for estrus and AI when detected in heat. If no estrus is observed by 72 hr after treatment, AI cows at 72 hr and again at 96 hr. If cows show heat after 96 hr, rebreed. It is essential to breed cows at 72 and 96 hr in the absence of detected estrus for maximal results.