for TAI group (n=124). DIM did not affect the ovulation rate but increasing DIM decreased (P=0.028) the conception and conception of ovulated cows. In the multiparous cows, the ovulation, conception and conception of ovulated cows were 85.8; 16.9 and 19.7% for AI group (n=155) and 86.2; 25.2 and 29.3% for TAI group (n=123). Increasing DIM have tendency (P=0.1) to decrease the ovulation rate. TAI cows had tendency (P<0.1) to have higher conception and conception of ovulated cows than cows that were bred after heat detection. Theses results shows that TAI (Heatsynch+CIDR) protocol could increase conception in multiparous lactating dairy cows.

Key Words: Synchronization, Conception, Dairy Cows

T264 Effect of physiological status on the concentrations of progesterone maintained by CIDRs in Holstein cattle. K. T. Wolf*, A. K. Sanders, D. L. Ray, and W. J. Silvia, *University of Kentucky, Lexington*.

The concentrations of progesterone (P) maintained by EAZI-BREED CIDR® Cattle Inserts (Pfizer, New York, NY) were examined in nonpregnant Holstein cattle of three different physiological states: lactating cows (LACT, AVE DIM 112, AVE milk production 42 kg/day), nonlactating cows (DRY) and breeding age heifers (HEIF). Ovaries were scanned ultrasonographically to confirm the presence of a mature corpus luteum. CIDRs were inserted into each animal on the day of CL detection (expt day 0) and removed after 7 days. Each animal received two injections of prostaglandin F2α (Lutalyse® Sterile Solution, Pfizer, 25 mg each, i.m.), the first on the morning of day 1, the second 12 h later, to induce luteolysis. In replicate 1 (LACT n = 6; DRY n = 4; HEIF n = 5), coccygeal blood samples were collected twice daily from day 0 to 9 to quantify P. The concentration of P maintained by the CIDR (CIDR-P) was defined as the mean concentration in samples collected from the AM of day 3 (after luteolysis was complete) through the AM of day 7 (when CIDRs were removed). Milk production was recorded at each milking on days 0 to 9. Body weights were recorded on days 0 and 9. Replicate 2 (LACT n = 9; DRY n = 6; HEIF n = 4) was conducted as Replicate 1 except that blood samples were collected daily from the jugular vein and daily feed intakes were recorded. The effect of physiological state on CIDR-P was determined by ANOVA with replicate and body weight included as covariates. There was an effect of body weight ($p < 0.01$) and physiological state ($p < 0.01$) on CIDR-P. CIDR-Ps were 2.6±0.3 (mean±sem), 2.0±0.2 and 1.5±0.1 ng/ml in HEIF, DRY and LACT groups respectively (groups different; $p< 0.05$). Within the LACT group, the relationships between CIDR-P and milk production or CIDR-P and daily feed intake were small (R-square = 0.09 and 0.14, respectively). Differences in CIDR-P are most likely due to differences in clearance rates. Over the ranges examined in this study, differences in CIDR-P among LACT cows could not be explained by differences in the level of milk production or feed intake.

Supported by the KY Agr. Expt. Stn. and Pfizer.

Key Words: Dairy Cattle, Progesterone, Lactation

T265 Effect of flunixin meglumine at days 15 and 16 after TAI on pregnancy rates in lactating Holstein cows. L. F. M. Pfeifer[1], J. L. M. Vasconcelos*[2], A. Schneider[1], J. Wilson Neto[1], N. J. L. Dionello[1], P. Duarte[1], L. Meneghelo[1], M. N. Correa[1], A. Guzeloglu[3], and W. W. Thatcher[4], [1]*UF Pelotas*, *Pelotas, Brazil*, [2]*FMVZ*, *Botucatu, Brazil*, [3]*Selcuk University*, *Konya, Turkey*, [4]*University of Florida*, *Gainesville*.

Administration of flunixin meglumine to heifers following insemination increased pregnancy rate (PR; Guzeloglu et al., 2006). The objective was to determine if two injections of flunixin meglumine (FM) at days 15.5 and 16.0 to lactating Holstein cows following timed AI would increase PR. The hypothesis is that administration of FM at a critical anti-luteolytic stage of conceptus development will increase PR. The trial was conducted in Brazil from June to September 2006. Lactating Holstein dairy cows (n=87; 30.3±10.2 kg milk/d and 181±152 DIM) were synchronized with one 3 mg norgestomet ear-implant (Crestar®, Intervet) and a 2 mg injection of estradiol benzoate i.m. (EB, Index) given on random days of the estrous cycle. Seven days later 0.53 mg i.m. of sodium cloprostenol, (PGF2α ; Ciosin®, Schering-Plough) was injected, and the implant removed on day 9. Two days later, a 100 µg i.m. of gonadorelin (Fertagyl®, Intervet) was given followed by TAI 12 h later. Cows randomly assigned to the treatment group (n=46) were injected twice with FM (1.1 mg/kg BW; i.m., Banamine®, Schering-Plough) given 12 h apart on the evening of Day 15 and the morning of Day 16. The control group (n = 41) was not treated. PR were the percentage of cows diagnosed pregnant by ultrasonography (Aloka 500, probe 7.5 MHz) at Days 30 and 60 after TAI. Effects of treatment on PR were analyzed by chi-square test. PR in the cows treated with FM were higher at Days 30 and 60 (37 and 37% vs. 17 and 15 %; P<0.05). In lactating dairy cows the beneficial effect of administering two injections of FM at days 15.5 and 16.0 after a timed AI on PR is due likely to its antiluteolytic effect that attenuates the secretion of PGF2α in a manner that is additive to the antiluteolytic effect of the conceptus. Strategies to optimize the dialogue between conceptus and maternal unit leading to maintenance of the CL warrant further investigation.

Key Words: Pregnancy, Flunixin Meglumine, Lactating Cows

T266 Effect of GnRH administered four days after synchronization of ovulation and timed AI on fertility of anovular lactating dairy cows. R. A. Sterry*[1], E. Silva[1], D. Kolb[2], and P. M. Fricke[1], [1]*University of Wiscosin-Madison*, [2]*Lodi Veterinary Clinic*, *Lodi, WI*.

In a previous study (Sterry et al., 2006; JDS 89:4237), treatment with GnRH 5 d after first postpartum TAI increased fertility for anovular but not cycling cows. To further assess this effect, lactating Holstein cows (n=1047) were submitted for first postpartum timed AI (TAI) using a Presynch + Ovsynch protocol, and cows were classified as anovular (n=156) vs. cycling (n=891) using transrectal ultrasonography based on the presence or absence of a corpus luteum (CL) at the first GnRH injection of Presynch + Ovsynch. Anovular cows were randomly assigned to receive either no further treatment (Control, n = 85), or 100µg GnRH 4 d after TAI (G4; n = 71). Ovarian structures were examined using transrectal ultrasonography and blood samples were collected to assess serum progesterone (P_4) at the first GnRH and $PGF_{2\alpha}$ injections of Ovsynch and 4 and 11 d after TAI. For G4 cows, 51% responded by ovulating a follicle in response to GnRH treatment 4 d after TAI; however, pregnancies per AI (P/AI) did not differ (P = 0.24) between G4 cows that ovulated (36%) compared to G4 cows that did not (21%). In addition, control and G4 cows in which an ovulation