

Repeat breeder cows improving fertility by estrus synchronization : Comparison of PRID + PGF2alfa + GNRH and GNRH+ PGF2alfa + GNRH protocols

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ABSTRACT : The study was to compare two protocols for estrus synchronization and pregnancy rates for improving repeat breeder cows fertility over 6 months period. The study consisted of 48 Cross Breed cows from 3 herds. In each herd, 6 cows were allotted to group I, 6 cows were allotted to group II and 4 cows were allotted to control group. In group I (n : 18), repeat breeder cows received Progesterone Releasing Intravaginal Devices (PRID) on day 0 and PGF2alfa injection on day 8th and Gonadotropin-Releasing Hormone (GnRH) injection on the day 9th. The PRID was removed on day 9th and cows were artificially inseminated after the detection of estrus. In group II (n: 18), repeat breeder cows received GnRH on day 0, PGF2alfa on day 7th and GnRH on day 9th. Cows were artificially inseminated after the detection of estrus. In control group repeat breeder cows did not receive any treatment and repeat breeder cows were artificially inseminated after a behavioral estrus. The 1.89 ± 0.38 and 1.07 ± 0.18 days were found between the end of the treatment and time of behavioral estrus in group I and II, respectively the percentages of estrus detection were 94.44% (17/18) in group I and 88.89% (16/18) in group II. The pregnancy rates after artificial insemination were 58.82% (10/17), 37.50% (6/16) and 33.3% (4/12) in group I, II and control group, respectively. There was not a statistical significant difference for the estrus rates and pregnancy rates between the group I, II and control group. As a result, it is concluded that, both protocol in this study did not improve fertility of repeat breeder cows.

Key Words : Fertility, GnRH, PRID, repeat breeder.