Efficacy of short progesterone protocol on previously anestrous does
Kelly L. Chevett, Sandra L. Ayres
Department of Biomedical Sciences, Tufts Cummings School of Veterinary Medicine, North Grafton, MA

The purpose of this project was to compare pregnancy rates in goats bred on the second estrus versus the initial, hormonally induced estrus during the non-breeding season. Twelve Alpine and Saanen dairy goats were used in this study. Does were assigned to either Group 1 or Group 2 for the duration of the experiment, with six does in each group. Blood was drawn throughout the experiment, and serum separated and frozen for later evaluation. Radioimmunoassay was used to measure progesterone levels. All does were induced to cycle with the insertion of a controlled internal drug-releasing device (CIDR) containing progesterone (Day 0). All does received 32 mg of follicle-stimulating hormone (FSH) on Day 2 and 3. On Day 3, CIDR’s were removed and all does received 5.0 mg of prostaglandin (PGF$_{2\alpha}$). All does were checked for signs of estrus twice a day after CIDR removal. Does in Group 1 were bred at the first signs of estrus and 12 hours later. Does in Group 2 were not bred on the first cycle, but it was noted if signs of estrus were displayed. On day 5, all does received 50 ug of gonadotropin releasing hormone (GnRH). On day 12, does in Group 2 received 5 mg of PGF$_{2\alpha}$. Does in Group 2 were checked for signs of estrus twice a day on Day 13, 14, and 15 and bred at the first signs of estrus. Does in Group 2 were given a second dose of 50 ug of GnRH on Day 14. Pregnancy rates were determined by progesterone data. One doe had high progesterone levels at day -1 and -2 indicating the presence of a corpus luteum (CL). Progesterone levels on day 1 through 3 rose in all does ranging from 1.7 to 10.6 ng/mL. On the first cycle, all does from Group 1 and 2 came into heat, and all Group 1 does were bred. Two animals in Group 1 produced CLs, with peak progesterone levels ranging from 1.8 to 23.1 ng/mL during their luteal phase, and one animal became pregnant. On the second cycle, two animals came into heat in Group 2 and both were bred. Three does in Group 2 produced CLs with peak progesterone levels ranging from 0.85 to 2.03 ng/mL. None of the goats in Group 2 became pregnant. In conclusion, a short progesterone priming protocol will bring does into heat allowing them to be bred. However percentage of ovulation and CL formation may be low resulting in low pregnancy rates.

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