

Superovulation and egg recovery in goats in the tropics

Abstract

The superovulatory response to gonadotropin treatment during different months of the year was investigated in Kambing kacang goats, a tropical breed, in Malaysia. 63 cycling does, fitted with progesterone impregnated intravaginal sponges for 17 days, received 2 days before sponge withdrawal, an i.m. injection of either 10, 15 or 20 mg of follicle stimulating hormone (FSH) or 500, 1000 or 1500 iu of equine chorionic gonadotropin (eCG). The dose of FSH was divided into 4 decreasing daily doses and each daily dose was subdivided into 2 and administered at 07.00 and 19.00. 54 does detected in oestrus were mated with fertile bucks. The ovarian response was determined by laparoscopy and eggs were recovered surgically 5 or 6 days after oestrus. The ovulatory response (mean+or- standard deviation) based on corpora lutea was higher in the FSH (13.4+or-8.4 corpora lutea per doe, n = 20) than the eCG-treated groups (6.4+or-5.1 corpora lutea per doe, n = 25) but the difference was not significant. Does responded to gonadotropins throughout the year with more than 50% of doses responding during the rainy months compared with less than 35% responding during the dry months. This difference was statistically significant. Egg recovery was better in the FSH (6.8+or-5.3 per doe, n = 20) than the eCG groups (3.0+or-3.8 per doe, n = 21) but the difference was not significant.