Effect of body weight (BW) and age interaction on embryo production in pFSH superovulated goats

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An experiment was conducted to evaluate the effect of age and body weight (BW) on ovarian responses in follicle stimulating hormone (pFSH) superovulated crossbred does. Forty donor does were divided equally into 4 groups: Group 1 (2-4 years old and 15-25 kg BW), Group 2 (2-4 years old and >25 kg BW), Group 3 (>4 years old and 15-25 kg BW) and Group 4 (>4 years old and >25 kg BW). Oestrus was synchronised by inserting a CIDR and a single injection of PGF2α. All the donor does were administered 5 mg pFSH per kg BW, twice a day through 6 decreasing dosages. Ovarian responses were evaluated on Day 7 after CIDR removal. All does in Group 2 showed oestrus sign while number of does showed oestrus from Groups 1, 3 and 4 were 7, 7 and 8, respectively. Group 2 produced higher (P<0.05) number of corpus luteum than the other groups. No differences were observed on total ovarian stimulation among the treatment groups, while total and transferable embryos were higher (P<0.05) in Group 2 (5.10 and 4.90) than Group 1 (1.57 and 0.86), Group 3 (0.29 and 0.00) and Group 4 (1.00 and 0.88), respectively. In conclusion, does more than 25 kg BW and less than 4 years old gave higher number of embryos than those upper and below this group, indicating donor age and BW is an important consideration for superovulation in goats.