

least square means and differences with $P < 0.05$ were considered significant.

Table 1

Effect of centrifugation on stallion seminal characteristics (expressed as least square means) over time during cool-storage incubation at 5 °C

Seminal characteristics	Time (h)	Non-centrifuged	Centrifuged
Motility	0	47.95	46.14
	24	48.46	52.50*
	48	41.71	50.37*
Viability	0	81.98	81.98
	24	65.86	73.35*
	48	62.19	70.04*
HOST	0	76.91	76.91
	24	42.42	49.66*
	48	34.40	41.45*

* $P < 0.05$.

It has been recently suggested that removal of seminal plasma is protective to sperm DNA integrity [Love, et al. *Theriogenology* 2005;63:1584–91]. In the present study, removal of seminal plasma by centrifugation resulted in better preservation of semen quality during short-term storage than non-centrifuged semen. Centrifugation of semen may be indicated for stallions with significant decrease in semen quality after overnight shipping.

Keywords: Horse semen; Seminal plasma; Cool storage; Centrifugation

Food Animal

EFFECT OF HUMAN CHORIONIC GONADOTROPIN (hCG) ADMINISTRATION ON OVARIAN ACTIVITY AND FERTILITY OF HOLSTEIN COWS

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The objectives of the study were to evaluate the effect of hCG administration 7 days after insemination on the induction of accessory corpora lutea, the level of plasma progesterone and the fertility of Holstein cows. Two hundred and four lactating Holstein cows were randomly distributed into two treatments: the cows in T1 ($n = 102$) received 1000 UI of hCG 7 days after insemination and the cows in T2 ($n = 102$) received 2 ml of

saline solution, in both cases by intramuscular injection. The cows were fed with a total mixed ratio containing fresh alfalfa, alfalfa hay, corn silage and a commercial concentrate with 16% CP and 2.7 MCal ME as well as water and a commercial mineral premix ad libitum. On days 7 and 14 after the service blood samples of the jugular vein were collected to determine the level of plasma progesterone and on day 14 the ovaries were scanned with an ultrasound (Sonovet 600, Medison, USA) equipped with a 7.5 MHz transducer to evaluate the incidence of accessory corpora lutea and its diameter, perimeter and area. Progesterone was determined using radioimmunoassay. The diagnosis of pregnancy was conducted on days 35 and 60 after the service by ultrasound in cows that did not return to estrous the following estrous cycle. The incidence of accessory corpora lutea and pregnancy rate were analyzed through logistic regression and the characteristics of the corpora lutea and the level of progesterone through mixed models procedures. The level of progesterone on days 7 and 14 after insemination were similar ($P > 0.05$) between T1 and T2. The incidence of accessory corpora lutea was higher ($P < 0.01$) in T1 (76.5%) compared with T2 (8.8%). There were no differences ($P > 0.05$) in the diameter, perimeter and area of the accessory corpora lutea between T1 and T2 (17.1 ± 0.3 versus 17.4 ± 0.8 ; 65.9 ± 1.3 versus 66.2 ± 3.4 ; 299.9 ± 10.9 versus 293.9 ± 29.7), respectively. Similarly there were no differences ($P > 0.05$) in pregnancy rate between T1 and T2 on day 35 (53.9% versus 43.1%) and 60 (43.1% versus 35.3%), respectively. In conclusion, the administration of hCG 7 days after insemination induces the formation of accessory corpora lutea, without affecting its morphologic characteristics, the level of progesterone in plasma and the fertility of lactating Holstein cows.

Keywords: Gonadotropins; Accessory corpora lutea; Pregnancy rate; Dairy cows

THE INDUCTION OF PARTURITION IN DAIRY GOATS AND THE OUTCOME OF KIDDING EVENTS

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The use of dexamethasone in combination with a prostaglandin $F_{2\alpha}$ analogue, dinoprost tromethamine (Lutalyse[®], Pfizer, USA) was considered as a management practice for the induction of parturition in dairy goats to concentrate kidding events during hours of