

THE EFFICIENCY OF DIFFERENT GONADOTROPHIN PREPARATIONS  
ON THE SUPEROVULATORY RESPONSES OF HOLSTEIN COWS

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Data of 276 collections in a commercial embryo transfer center were analyzed retrospectively, in order to study the effectiveness of 5 different commercial gonadotrophin preparations in Holstein donors. Superovulation treatments varied according to the drug used: A) Follitropin (Vetrepharm Inc, Canada), batch 121A-twice daily constant dose injections over 4 d for a total dose of 20 mg PPF (400 mg NIH-FSH-P1); B) FSH-P (Schering Inc, USA) batch 596A90-twice daily decreasing dose injections over 4 d for a total dose of 48 mg Armour; C) FSH-p Laborclin (Lab Laborclin, Brazil) batch 01/91-twice daily decreasing dose injections of 48 mg Armour; D) FSH-p Altrin (Antrin, Japan) batch 512241-twice daily decreasing dose injections of 48 mg Armour; E) Folitropina (Lab Elea, Argentina) batch E6017-twice daily decreasing dose injections for a total dose of 48 mg Armour. All treatments were started between Days 10 and 13 of the estrous cycle. Estrus was induced with PGF<sub>2α</sub> (Delprostenate; Ono Pharma, Japan) injected 48 h and 60 h after beginning of treatments. All donors were artificially inseminated with frozen semen twice at 12 h intervals following onset of estrus. Donors were rectal palpated prior to embryo recovery to estimate the number of CL. All collections were made between Days 6 and 8 after estrus. Data were analyzed by least squares method. Results obtained are shown in table 1.

Table 1. Superovulatory responses of Holstein cows to different gonadotrophin preparations

Gonadotrophin	n	CL	Total Ova/Embryos	Transferable Embryos	%
Follitropin	44	7.3 <sup>ab</sup>	6.2 <sup>ab</sup>	3.2 <sup>a</sup>	48.9 <sup>a</sup>
FSH-P (Schering)	66	8.8 <sup>a</sup>	7.5 <sup>ab</sup>	2.9 <sup>a</sup>	39.5 <sup>a</sup>
Laborclin	84	8.9 <sup>a</sup>	8.5 <sup>a</sup>	4.2 <sup>a</sup>	49.1 <sup>a</sup>
Antrin	29	7.7 <sup>ab</sup>	6.5 <sup>ab</sup>	3.2 <sup>a</sup>	48.9 <sup>a</sup>
Folitropina	26	7.4 <sup>ab</sup>	4.5 <sup>b</sup>	3.1 <sup>a</sup>	70.0 <sup>b</sup>

<sup>ab</sup> Values in the same column with different superscripts are different (P<0.01)

Although some minor statistical differences existed in numbers of CL and percentage of transferable embryos, there were no statistical differences among products in the mean number of transferable embryos. It is concluded that under normal circumstances, superovulatory response with any one of the 5 different gonadotrophin preparations are likely to be similar.