

Fertility in Holstein cattle using frozen semen treated with HeiferPLUS

The following is data generated by dairy producers following their normal breeding procedures. Most animals were bred 12 hrs after observed heat using a single 1/2cc dose of Holstein bull semen.

HEIFERS

Producer	Date	<u>Bred with HeiferPLUS</u>				<u>No HeiferPLUS**</u>			
		# preg	# AI	% preg (serv/conc)		#preg	#AI	% preg (serv/conc)	
A ²	07/17/08	7	10	70%	1.4	-	-	nr	-
B	03/14/08	8	12	67%	1.5	-	-	53%	1.9
C ⁵	03/03/06	14	16	87%	1.1	-	-	nr	-
D ¹	03/03/07	9	11	82%	1.2	-	-	nr	-
Subtotals		38	49	78%	1.3			---	---

COWS

Producer	Date	<u>Bred with HeiferPLUS</u>				<u>No HeiferPLUS**</u>			
		#preg	#AI	% preg (serv/conc)		#preg	#AI	% preg (serv/conc)	
A	3/14/08	12	32	37.5%	2.7	-	-	45%	2.2
B	5/02/08	26	52	50 %	2.0	-	-	50%	2.0
C ³	2/15/08	30	80	37.5%	2.7	-	-	33%	3.0
D	5/05/08	10	20	50 %	2.0	-	-	nr	-
E	10/23/08	7	10	70 %	1.4	-	-	nr	-
F ⁴	01/07/09	3	39	33 %	3.0	16	45	36%	2.8
Subtotals		98	233	42%	2.4			41%	2.4

¹ Reported 7/9 (77%) heifer calves born

² Reported 7/7 (100%) heifer calves (ultrasound, blind test)—Jersey heifers

³ Reported 14/21 (67%) heifer calves (ultrasound)

⁴ Reported 8/10 (80%) heifer calves born

⁵ Reported 11/14 (79%) heifer calves born

** Herd averages

nr Not reported

Table 2: Sex Ratio of Calves

# calves	♀	♂
61	47	14
%	77%	33%

RESULTS

In heifers, the overall service rate was 1.3 from 49 first services of mostly Holstein heifers (10 heifers were Jersey, see Group 1). This was a non-return rate of 38/49 (78%) for heifers bred with HeiferPLUS treated semen. As a comparison, one producer reported a herd average of 1.9 services/pregnancy for heifers. When HeiferPLUS was used, there was a 14% increase in pregnancy rate.

In cows, similar results were seen with an overall conception rate of 42% from 233 first and second services. Overall, service rates remained either unchanged or slightly better when HeiferPLUS was used.

In the above trials, five producers provided sex ratio data (calving and ultrasound data). The combined data (Table 2) shows the sex of calves produced was **47 heifers and 14 bulls**; this is a total of 47/61 or **77% heifers**. The sex ratio ranged from 67% to 100% heifer calves produced using HeiferPLUS.

The following table shows some of the 2008 on-farm results of producers from across the US that used HEIFERPLUS. This information was generated by dairy producers inseminating herd cows and heifers with HEIFERPLUS treated semen. Most used 1/2cc doses and incubated for 20 minutes in the thaw bath. The sex of the calf was determined by either ultrasound and/or calving observations. The majority of animals were Holsteins.

Table 1 PRODUCER DATA—2008 Results with HEIFERPLUS

Producer	No. of Calves	♂	♀	% ♀
1	9	2	7	77 %
2	7	0	7	100 %
3	21	7	14	67 %
4	10	2	8	80 %
5	14	3	11	79 %
6	9	1	8	89 %
7	6	1	5	83 %
8	3	0	3	100 %
9	6	1	5	83 %
10	9	3	6	67 %
11	10	3	7	70 %
12	15	5	10	67 %
13	5	1	4	80 %
Total	124	29	95	77 %

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