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Short Note

Incidence of abortion and stillbirth in University dairy farm of Himachal Pradesh: a Retrospective study

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Abortions and stillbirth cause a great loss to the dairy industry in term of loss of progeny, increased period of inter-calving interval, increased incidence of infertility/sterility and decreased production of the animals (Ingale *et al.* 2013). The calves born dead before term were included in abortion cases and the calves which were born dead or died within 24 hours before term were included in stillbirth cases (Roberts 1971). The present study was done to record the Incidence of abortion and stillbirth in livestock farm of the university. The data were collected from the records of livestock farm of the university. The experimental animals comprised of Jersey and crossbred (Jersey X Red Sindhi) cows maintained in the farm from 1999 to 2009. The data were generated on abortion and stillbirth after observation of 1401 calvings. Out of 1401 calvings, 518 were Jersey calvings and 883 were crossbred calvings.

The Incidence of abortion in Jersey cows varied from 0 to 6.52 % and 0 to 6.9 % in crossbred cows (Table 1). The overall incidence in crossbred cow (2.60 %) was higher than Jersey (1.54 %) cows. The incidence of abortion was significantly ($P<0.05$) higher in 1999 and 2001 in comparison to the other years in Jersey cows. In crossbred cows the incidence of abortion was significantly higher ($P<0.05$) in 1999 to 2001 in comparison to other years. The overall incidence of abortion in Jersey (1.54 %) was lower and was little bit higher in crossbred cows (2.60 %) than the accepted values of 2 to 5 % (Roberts 1971). The present results were comparable with reports of 1.52 and 1.42 % in Hariana and Rathi cows, respectively (Saxena *et al.* 1991) and 1.3 to 1.5 % in Sahiwal cows (Kaikini *et al.* 1977).

However, earlier reports showed higher incidences which were 6.6 % (Ramalingam *et al.* 1990) and 4.73 % (*Rao et al.* 1976) in Holstein cows. Other higher incidences of abortion in exotic and crossbred cows were 19.35 and 6.01 %, respectively (Mehrotra and Dey 1998).

The incidence of stillbirth varied from 0 to 5.12 % in Jersey cows and 0 to 5.1 % in crossbred cows. Among the years, the incidence of stillbirth (5.12 and 5.1%) were significantly higher ($P<0.05$) in 2004 and 2006 in Jersey and crossbred cows, respectively. The overall incidence of stillbirth in Jersey cows (1.54 %) and crossbred cows (2.03 %) in present study were comparably lower than the reports of 2.64 % in Jersey and 2.74 % in crossbred cows (Islam and Nadroo 2006) and 8.12 % (Gupta *et al.* 2003) in crossbred cows.

In another study by Islam and Nadroo (2006), high rates of abortion (1.32 %) were recorded in Jersey cows in comparison to crossbred cows (0.63 %). However, in our study crossbred cows were having high rate of abortion (2.60 %) in comparison to Jersey (1.54 %) cows.

The overall incidence of abortion and stillbirth recorded was 1.54 and 1.54 %, respectively in Jersey breed cow and 2.60 % and 2.04 %, respectively for crossbred cows of University dairy farm over a period of 11 years. The recorded incidence is within the acceptable limit of abortion *i.e.* between 2-5% (Roberts 1971).

Table 1. Year-wise Incidence of Abortion and Still birth

Sr. No.	Year	No. of Calving	Jersey			No. of Calving	Crossbred		
			Losses				Losses		
			Condition	n	% loss		Condition	n	% loss
1.	1999	80	Abortion	3	3.75	90	Abortion	4	4.4
			Still Birth	1	1.25		Still Birth	1	1.1
2.	2000	68	Abortion	1	1.47	87	Abortion	4	4.5
			Still Birth	1	1.47		Still Birth	2	2.2
3.	2001	46	Abortion	3	6.52	73	Abortion	5	6.8
			Still Birth	0	0		Still Birth	1	1.38
4.	2002	40	Abortion	0	0	70	Abortion	4	5.7
			Still Birth	0	0		Still Birth	1	1.42
5.	2003	40	Abortion	0	0	71	Abortion	1	1.4
			Still Birth	0	0		Still Birth	1	1.4
6.	2004	39	Abortion	1	2.5	76	Abortion	3	3.9
			Still Birth	2	5.1		Still Birth	3	3.9
7.	2005	42	Abortion	0	0	84	Abortion	0	0
			Still Birth	0	0		Still Birth	2	2.3
8.	2006	39	Abortion	0	0	78	Abortion	0	0
			Still Birth	1	2.5		Still Birth	4	5.1
9.	2007	40	Abortion	0	0	83	Abortion	1	1.2
			Still Birth	1	2.5		Still Birth	0	0
10.	2008	42	Abortion	0	0	81	Abortion	1	1.23
			Still Birth	1	2.3		Still Birth	2	2.4
11.	2009	42	Abortion	0	0	90	Abortion	0	0
			Still Birth	1	2.3		Still Birth	1	1.1
Total		518	Abortion	8	1.54	883	Abortion	23	2.60
			Still Birth	8	1.54		Still Birth	18	2.04

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