

**Short Communication****Management of Prolong Anestrus by PGF2 $\alpha$  Analogue in Dairy Animal****Govind Kumar Choudhary<sup>1</sup>, Rudal Prasad Chaudhary<sup>1</sup>, Rekha Singh<sup>1</sup>, A. K. Chaturvedi<sup>1</sup> and D. P. Singh<sup>2</sup>**

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Anestrus is a stumbling block in dairy enterprises and causes huge economic loss to dairy farmers in terms of unproductive animal and low production of milk per day per animal. In more than 80 % of dairy animals like cow, buffalo and heifers has been suffering from pre and post-partum anestrus due to the lack of balanced ration and deficiency of essential minerals and vitamins. The another cause of anestrus is the uterine infection by any origin leads to early embryonic death, death of fetus after complete term, accumulation of amniotic fluids in the uterus<sup>[1]</sup>.

Krishi Vgyan Kendra organized an on farm trial (OFT) and front line (FLD) demonstration on the farmers field in the dairy animal for alleviation of long term anestrus. The 24 and 10 dairy animal were selected and of age group from 4-8 years old. The entire animal is not coming in estrus after more 24 month of last calving. All the animal was examined manually by per rectal examination. Some of the animals show the persistence of corpus luteum (CL) on their ovary and the uterus of almost all the animal show the abnormal size. All the animals were treated

with PGF2 $\alpha$  analogue (Pragma®) 2 ml given to intramuscular route after organizing the infertility camp in the different villages to alleviate the long term anestrus in dairy animals.

As the result were observed and presented in table 1 showed that the animal treated with PGF2 $\alpha$  comes in heat after 20-30 days. The all the animal in group I and II were showed the symptom of estrus and were inseminated by an expert artificial inseminator at the farmers field. In the responded animal 6 animal were conceived out of 10 from group I and from group II 13 animal were conceived out of 24. After the term 60% from group I and 50% from group II animal were given healthy calves. The anestrus in dairy animal has of many reasons like maceration, mummification, early embryonic death, an ovulation, delayed ovulation, cystic ovarian disease (COD) and persistence of corpus luteum on the functional ovary (Roberts 2004). The cases may persist till the corpus luteum regression by artificial and natural mean inside the body. The prostaglandins have the great role in luteolysis, ovulation and parturition

**Table 1 Animal showing the estrus after treatment with PGF2 $\alpha$** 

Sl. No.	Year of experiments	Number of Animal	Number of animal treated	No. of Animal show estrus	No. of animal come conceived	% of animal give normal calving
	2011-2012	10	10	10	6	60
	2017-2018	24	24	24	13	50

The dairy animal suffering from anestrus from very long time the farmer have expense more on their medication and keeping the unproductive animal. The animal were treated with PGF2 $\alpha$  analogue (Pragma®) 2 ml given to intramuscular route all the animal responded and only 60% from group I and 50%

from group II animals were given healthy calves. Thus, with PGF2 $\alpha$  analogue (Pragma®) help in regression of persistent CL on the ovary and this resulted into starts the cycle with timely ovulation. This normalization of cycle increases the conception rate in dairy animal.

### **Reference**

1. Roberts, J. S. (2004). Veterinary Obstetrics and Genital Diseases, Edition 2<sup>nd</sup>, CBS Publishers, pp-35.