# Knowledge and success of Artificial Insemination (A.I.) in Tehsil Sarkaghat of District Mandi (Himachal Pradesh)



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## Abstract

Survey was carried out in 4 main and 8 sub artificial insemination (A.I.) centres of Sarkaghat Tehsil of District Mandi (H.P.) during one year (April to March).To study the conception rate in cows inseminated by artificially. Out of 2204 cows 1790 cows were conceived and 414 were not conceived. The overall conception rate was 81.21%.It was concluded that locality have no significant influence on conception rate of artificial insemination in cows. It is suggested that live stock owners should be educated about A.I. by showing documentary film, seminar and group discussion at each A.I. centre and other centres.

Keywords: Cow, A.I Centres and Conception Rate.

#### Introduction

It is impossible to think of improving agriculture in India without having good cattle.India possess the largest number of cattle in the world with highest milk producer. Artificial insemination (A.I.) has become an accepted and regularized part of the milk production system of modern agriculture well over. Artificial Insemination has now been raising all over the world as a quickest way of poor indigenous animal development. The present survey was therefore conducted to determine the success percentage in conception rate of A.I. in cow in Tehsil Sarkaghat (H.P.) at different main and sub A.I. centres.

#### **Material and Methods**

The Sarkaghat one of the big Tehsil of District mandi of Himachal Pradesh having average cow and buffalo population. Nearly two thousand animals were selected for this survey. The Tehsil having advanced as well as backward farmers,most of them using A.I. in cows has still many problems for it successful implementation in rural areas. Today we are practicing this technique. The present survey was carried out to know the success of A.I.in Tehsil Sarkaghat. The actual work was conducted following 4 main and 8 sub centres which were randomly selected for this investigation-

## Main A.I. Centres

- 1. Sarkaghat
- 2. Bhambla
- 3. Baldwara
- 4. Sandhole

#### Sub A.I. Centres

- 1. Longni
- 2. Tihra
- 3. Jamni
- 4. Mohani Nagla
- 5. Smalla
- 6. Beri
- 7. Kujabhal
- 8. Kothi

All the A.I. centres selected for this survey were using frozen semen of mostly Jersey breeds. Data was collected monthly basis during one year (April to March) from 12 A.I. centres showing No. of cow inseminated, conceived, repeated and the percentages of success was calculated as per following formula-

Coception rate (C.R.) = No. of cows pregnant  $\mathbf{x}$  100/No. of cows inseminated

Data was statistical analyzed as described by Snedcor, G.W. and Cochran, W G.(1980).

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#### **Results and Discussion**

Results obtained during this has been presented in Table No-1-

It is clearly indicated that total 2204 cows inseminated in all the 12 A.I. centres but1790 cows have conceived and 414 were repeated. The average conception rate was 81.21 percent in Sarkaghat Tehsil of H.P. Among the A.I. centres highest conception rate 92.73 percent was recorded at Bhambla centre and lowest conception rate 68.00 percent was recorded in Beri A.I. centre. In case of main A.I. centre highest conception rate (C.R.) was same in Bhambla centre but lowest C.R.(76.25 percent) in Sarkaghat. Sub A.I. centre Tihra having highest C.R. (88.66 per cent) and lowest it was in Beri centre. It is clearly shown the above data that the number of insemination does not affect the percentage of conception rate. The statistical analysis reveals that their was a significant influence on conception rate at 5% level of significance in x2 test. Nair et.al. (1980), Das et.al.(2002), Anzar et.al (2003),Khan et.al.(2008) and Razi et.al.(2010) studied on the conception rate.

#### Suggestion

In spite of favourable attitute towards the A.I. the villagers are still some what reluctant in using A.I. methods. Many of them still prefer natural service looking to the working conditions at the centre.The following suggestion will be worth while to be incorporated here in-

- 1. Transport facilities should be proper and smooth.
- 2. We trained staff and special equipment should be arranged.

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3. Live stock owners/villagers should be educated about A.I. by showing documentary film, seminar and group discussion at each A.I. centre and other place.

#### Conculsion

Out of 2204 cows 1790 cows were conceived and 414 were not conceived. The overall conception rate was 81.21%. It was concluded that locality or area of A.I. centre have not effect on the conception rate.

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| S.N | Name of A.I. centre | Total No of<br>Insemination<br>in cows | Total No of<br>pregnant cows | Total No of<br>repeated cows | Percent<br>Conception rate<br>(C.R.) |
|-----|---------------------|--|------------------------------|------------------------------|--------------------------------------|
|     | Main A.I. Centre    | in cows                                |                              |                              | (0.1(.)                              |
| 1   | Sarkaghat           | 379                                    | 289                          | 90                           | 76.25                                |
| 2   | Bhambla             | 344                                    | 319                          | 25                           | 92.73                                |
| 3   | Baldwara            | 163                                    | 129                          | 34                           | 79.14                                |
| 4   | Sandhole            | 322                                    | 263                          | 59                           | 81.67                                |
|     | Sub A.I. Centre     |  |                              |                              |                                      |
| 1   | Tihra               | 150                                    | 133                          | 17                           | 88.66                                |
| 2   | Longni              | 125                                    | 90                           | 35                           | 72.00                                |
| 3   | Jamni               | 165                                    | 130                          | 35                           | 78.78                                |
| 4   | Mohani Nagla        | 157                                    | 134                          | 23                           | 85.35                                |
| 5   | Smalla              | 44                                     | 39                           | 05                           | 88.63                                |
| 6   | Beri                | 100                                    | 68                           | 32                           | 68.00                                |
| 7   | Kuj abhal           | 133                                    | 105                          | 28                           | 78.94                                |
| 8   | Kothi               | 122                                    | 91                           | 31                           | 74.59                                |
|     | Total               | 2204                                   | 1790                         | 414                          | 81.21                                |

Table No-1- Showing the Artificial Insemination (A.I.) and Conception Rate of Cows in Different A.I. Centre in Tehsil Sarkaghat of District Mandi (Himachal Pradesh)