

ALL INDIA CO-ORDINATED RESEARCH PROJECT ON CATTLE - FRIESWAL (FPT) Code-174

Sanction No. : F.No.2-12/2007/GIA/PDC/896/ 18.06.2009
Date of Start : 16.09.2009
Funded By : ICAR-CIRC, Meerut
Brief report : Upto, April 2023
Project Investigator : Dr. C.B. Singh, Professor A.G.B., C.V.A.Sc.,
GBPUA&T, Pantnagar, Cont. No. : 9458359352

Project Team : 1. Dr. Shiv Prasad, Professor & Head (V.G.O.)
: 2. Dr. Brijesh Singh, Professor (L.P.M.)
: 3. Dr. Sanjay Chaudhary, Joint Dir.,
(Vet. Extension)

MAJOR ACHIEVEMENTS:

AICRP on Cattle-FPT was initiated on 16.09.2009 with the objective to progeny test Fireswal bulls under field conditions on a regular basis and, thus to improve the genetic potential of crossbred cows in U.S.Nagar and Nainital Districts finally leading to economic up-liftment of the farmer beneficiaries. **Project covers 8 A.I. centers, 270 villages and 5229 beneficiaries in U.S. Nagar and Nainital district of Uttarakhand.**

Performance:-

1. **Frozen Semen:** Under the project frozen semen from test bull is made available by **C.I.R.C., Meerut** at an interval of about 18 months to carry out test insemination in the identified crossbred cattle (dams) population in the test mating project area. The first consignment was provided on **13.01.2010. Till December 2022**, a total of **71836 doses from 145 bulls of eight set** were received for carrying out test Artificial Insemination. Inseminated dams were diagnosed for pregnancy and pregnant once were followed for calving which resulted in to the birth of progenies. The birth of female progenies and there constant follow-up are important for estimating breeding value of respective sires.
2. Beginning to April 2023 a total of **50389 Artificial Insemination** were carried out, **27866 Pregnancy Diagnosis confirmed (Conception Rate 55.30%)**, **9797 female progenies born**, out of which **2043 progenies calved** and among them **1692 progenies completed their first lactation with an average 305-day first lactation milk yield (FLMY) of 3191.19 kg.**
3. **During the year 2022 (Jan. 2022 to Dec. 2022)** A total of **5001 Artificial Insemination** were carried out and **2692 Pregnancy Diagnosis** were confirmed leading to **54.89% Conception Rate**. A Total of **1001 female progenies born** and **221 progenies reached at Age at First Calving with average AFC of 1014.3 days.** A total of **196 progenies completed their first lactation with average 305 days first lactation milk yield of 3437.31 kg with 3.5% fat.**
4. Beginning to April 2023, a total of **53** field level training programs (**3774** farmers trained), **10** Heifers' Show, **15 Animal welfare camps** and **30 Kisan Choupal** were conducted in field.

Impact:-

1. The first lactation of 305 days, Milk yield of daughters has shown an increasing trend from 2494.80 kg. in first set of bulls (2010-2011) to 3437.31 kg. in current set (15&16) of bulls (2021-22) showing a sharp increase of 942.51 kg. (37.77 %).
2. The first Lactation milk yield of daughters has shown an increasing trend from 2214.5 kg in base population to 3191.19 kg (overall), showing a sharp increase of 976.69 kg (44.10 %).
3. The Age at First Calving has shown declining trend in progenies of First set of Bulls (2010) from 1149 to 1014 days in current set of bulls (2021-22) with an improvement of 135 days (11.7 %).

Success stories:-

Twenty success stories of progressive project beneficiaries have been created. The beneficiaries have been benefited in various ways as reduction in Age at First Calving and calving Interval, and increase in the average milk yield and conception rate. Due to the improvement in above mentioned production and reproduction traits, the project beneficiaries have been able to enhance their income by 2-3 times. These 20 success stories have also been submitted to funding agency.

Consolidation activities:-

- ❖ **Visibility:** As per the mandate of the project, it was felt necessary to create awareness in the project's area first. For this purpose 16 prescribed display boards are placed at appropriate places in the area of operation to make the farmers aware about the program.



Display boards in field

- ❖ **Inputs Distribution:** Inputs play a great role in the implementation of any field based program. Various Inputs like, **calf starter feed (15 kg BAG), plastic feeding bowl, Mineral mixture and Anthelmintic** etc. per progeny have been regularly provided to beneficiaries as motivation to rear improved progenies scientifically.



Inputs Distribution to project beneficiaries

Maintaining health status of Heifers: For treatment purpose of repeat breeders, animal welfare camps are being organized from time to time. So far as a total of **15 such camps have been organized in different villages of project in which 341 repeat breeders' were treated. During the year 2022 a total 02 animal health camps were organized in which 22 repeated breeder were treated.**



Animal Health Camp at Sitarganj
Artificial Insemination Center



Animal Health Camp at Kelakheda
Artificial Insemination Center

- ❖ **Farmers Training:** Training is important segment of inputs and necessary for imbibing the concepts and familiarizes them with the project's requirement. Thus it was considered proper to impart training/exposure to farmer's beneficiaries. Hence, Trainings were organized in field as well as at Institutional level in order to enable more farmers take advantage to expertise in related fields. So far as total 53 trainings were performed in field and at Institutional level in which 3,774 beneficiaries have been participated. During the year 2022, 03 Farmers trainings at field level were organized in which 127 beneficiaries have been participated.
- ❖ **Simultaneously,** the Inseminator cum data Recorder, who happened to be the key persons in the project, also needed orientation and training to optimally utilize their skills. So far as total of **04 Refresher courses for Inseminator cum Data Recorders** have been organized.

Farmers Training Program



Farmers Training at Sitarganj
Artificial Insemination Center



Farmers Training at Kelakheda
Artificial Insemination Center



Refresher Course of Artificial Inseminator cum Data Recorder

- ❖ **Heifers shows:** As program is growing faster and female progenies (heifers) are being born in the project area, it was considered to convert the simple farmers training/ exposures into Heifers show-cum farmers training for more effective adoption of practices. So far as, a total of 10 Heifers show have been organized in different villages of project area.



Heifers Shows

Amritnagar (Gadarpur A.I. Center) 14.12.2017

- ❖ **Kissan chaupal :** To create the awareness among beneficiaries and to discuss their various problems, a total of 30 Kissan Chaupal were conducted in field in which various problems of beneficiaries were discussed with project team experts and solution were made at the spot. During the year 2022 a total of 13 kissan chaupal were conducted in which a total of 301 beneficiaries have been participated.

Kissan Chaupal



Pantnagar
Artificial Insemination Center



Khamaria
Artificial Insemination Center

❖ सफलता की कहानियाँ

अखिल भारतीय समन्वित गोवंश शोध परियोजना, पन्तनगर
सफलता की कहानी (क्रम-16)



परिचय:

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मैं परियोजना से पिछले 07 वर्षों से जुड़ा हूँ। परियोजना से जुड़ने से पूर्व मेरे पास केवल 04 पशु (3 गाय व 1 बछिया) थी। उस समय गायों में प्राकृतिक गर्भाधान ही करवाता था, जिससे गर्भधारण क्षमता लगभग 30-38 प्रतिषत तक रहती थी। उस समय गायों की प्रथम ब्यांत की औसत आयु 42 माह एवं ब्यांत अन्तराल लगभग 20 माह रहता था। गायों में समय से जेर न गिरना एक सामान्य समस्या रहती थी। स्वास्थ्य सम्बन्धी संक्रामक रोगों के टीके, डीवर्मिंग एवं खनिज मिश्रण के उपयोग के विषय में कोई जानकारी नहीं थी। उस समय गायों में अधिकतम दुग्ध उत्पादन 3-4 ली. प्रतिदिन व घरेलू दुग्ध उत्पादन अधिकतम 12 ली. प्रतिदिन था।

वर्ष 2014 में परियोजना से जुड़ने के बाद वर्तमान समय में, मेरे पास कुल 09 पशु (4 गाय एवं 5 बछियाँ) हैं, जो कि सभी फ्रिजवाल नस्ल की हैं। गायों में प्रथम ब्यांत की औसत आयु अब 28 माँह तथा दो ब्यांतों का अंतराल लगभग 14 माह है। परियोजना के माध्यम से अब सभी गायों में कृत्रिम गर्भाधान करवाता हूँ। जिससे गर्भधारण क्षमता में अविश्वसनीय सुधार हुआ है एवं पशुओं में स्वास्थ्य सम्बन्धी सभी संक्रामक रोगों के टीके, कृमिनाशक, सींग रोधन आदि का प्रयोग नियमित रूप से करवाता हूँ, जिससे गायों के दुग्ध उत्पादन में काफी बढ़ोत्तरी हुई है। गायों में अधिकतम दुग्ध उत्पादन 28-30 ली. प्रतिदिन व घरेलू दूध उत्पादन अधिकतम 80 ली. प्रतिदिन आँका गया है। आहार में सन्तुलित दाने एवं खनिज मिश्रण का उपयोग नियमित रूप से किया जा रहा है। दूध से अर्जित आय से एक पक्का पशु बाड़े का निर्माण व एक चारा मशीन खरीदी है। दुग्ध उत्पादन से अर्जित आय से परिवार की स्थिति काफी सुदृढ़ हुई है।



Ranpal Singh

गोपालक

गोपालक

[Signature]

परियोजनाधिकारी

परियोजनाधिकारी

अखिल भारतीय समन्वित गोवंश शोध परियोजना, पन्तनगर
सफलता की कहानी (कम-AICRP-F/PNT/SS/20)



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पन्तनगर वि.वि. द्वारा संचालित फ़िजवाल परियोजना से मैं पिछले 10 वर्षों से जुड़ा हूँ। परियोजना से जुड़ने से पूर्व मेरे पास केवल 2 पशु (बछिया) थी। उस समय पशु प्रबन्धन की वैज्ञानिक जानकारी न होने के कारण गायों में प्राकृतिक गर्भाधान ही करता था। जिसमें औसत गर्भाधान क्षमता 30-35 प्रतिशत तथा प्रथम व्योत की औसत आयु (40-42 माँह) रहती थी। पशुओं के संक्रामक रोगों के टीके, खनिज मिश्रण सन्तुलित आहार आदि के विषय में जानकारी न होने के कारण पशुओं में स्वास्थ्य समन्धी समस्या एवं उत्पादन भी कम (5-7 ली.) प्रति दिन मिल पाता था।

वर्ष 2012 में परियोजना से जुड़ने के बाद वर्तमान समय में, मेरे पास कुल 04 पशु (1 गाय एवं 3 बछियाँ) हैं, जो कि सभी फ़िजवाल नस्ल की हैं। परियोजना के माध्यम से पशु प्रबन्धन की दी गयी वैज्ञानिक जानकारी के बाद मुझे गायों से काफी लाभ अर्जित हुआ है। गायों में प्रथम व्योत की औसत आयु 40 माह से घट कर 28 माह एवं व्योत अन्तराल 18 माँह की जगह पर 14 माह पर पहुँच गया है। गर्भधारण क्षमता एवं दुग्ध उत्पादन में आशातीत सुधार (20-25 ली. प्रति पशु प्रतिदिन) हुआ है। सन्तुलित आहार एवं खनिज मिश्रण के नियमित उपयोग से 80 प्रतिशत स्वास्थ्य समस्यायें कम हो चुकी है। 15 बछियाँ बेचकर रु. 600000.00 का शुद्ध लाभ अर्जित किया है।




गोपालक


परियोजनाधिकारी



Frieswal Heerd Maintained at farmers field (Sitarganj AI. Center)



Tag No. 5207
(Khamaria A.I.C.)
DOB (19/03/18), DOC(11/03/20)
AFC 24 M.



TAG NO.:- 1826,
(STARGANJ A.I. C.)
FLMY:- 4196.80 kg.



Tag No:- AICRP-F-4124
(Bazpur A.I. C.)
DOB (23/05/17) DOC (21/05/19) AFC 24 M.



FLMY:- 4331.00 kg.
(BAZPUR A.I.C.)
TAG NO.:- 1787, SIRE:- KAMU,

Outstanding Performance of progenies at Different AI. Center

Different Project Field Activities:-



Artificial Insemination



Pregnancy Diagnosis



De-worming



Body measurement



Brooming



Feeding



Milk Measurement



Washing



Experts' advice



De-Horning



Emergency Treatment During Corona Period at Gadarpur A.I. Centre



Before Treatment



After Treatment

AICRP-F

Field Evaluation by Director CIRC & Team (01-02 April, 2022)



Evaluation of Heifers (Sitarganj, AIC)



Interaction with beneficiaries (Pantnagar, AIC)

Meeting with beneficiaries (Gadarpur, AIC)



Group Discussion with Beneficiaries at

(Sitarganj, AIC)

(Khamaria, AIC)

Evaluation by University Team



DES & Team at Pantnagar AIC, 19.11.2022

Head AGB & Team at Sitarganj AIC, 22.11.2022

PUBLICATIONS

Research papers:	05
Research paper presented:	11
Popular Articles:	05
PG/Ph.D. thesis submitted:	04

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