# MISSION MILK CHRONICLE





Successful Interventions of National Dairy Plan-I

JANUARY 2019 Vol-III

## एनडीपी के माध्यम से महिला सशक्तिकरण



भी पाल सहकारी दुग्ध संघ मर्यादित, भोपाल के कार्यक्षेत्र जिला बैतूल से 20 कि.मी.की दूरी पर ग्राम छुरी स्थित है। इस ग्राम की जनसंख्या लगभग 1500 है।

दुग्ध सहकारिता विस्तारीकरण के अन्तर्गत छुरी ग्राम में महिला छुरी सहकारी समिति मर्यादित का गठन किया गया, जिसका पंजीयन क्रमांक स.पं./बैतूल/1569 दिनांक 10.9.07 एवं पंजीकृत पता, विकास खण्ड – घोड़ा डोगरीत हसील – घोड़ाडोंगरी, जिला बैतूल है।

राष्ट्रीय डेयरी योजना – चरण 1 की

गांव आधारित दूध अधिप्राप्ति प्रणाली की उप परियोजना (वी.बी.एम.पी.एस.) के अंतर्गत समिति सुदृद्धीकरण की गतिविधि में महिला छुरी समिति का वर्ष 2013-14 में चयन किया गया।

योजनान्तर्गत समिति को डाटा प्रोसेसर मिल्क कलेक्शन यूनिट (डी.पी.एम.सी.यू.) उपलब्ध कराया गया।

समिति में डी.पी.एम.सी.यू. लगने से पूर्व समिति का दुग्ध संकलन पुराने तरीके (लीटर माप) से एवं दुग्ध परीक्षण का कार्य गरबर मशीन के द्वारा किया जाता था जिससे

#### तालिका: 1

डी.पी.एम.सी.यू. स्थापना के पूर्व				
दुग्ध प्रदायक संख्या	औसत दुग्ध संकलन	औसत फैट	औसत एस. एन.एफ.	
32	150	4.8	8.4	

डी.पी.एम.सी.यू. स्थापना के पश्चात				
दुग्ध प्रदायक संख्या	औसत दुग्ध संकलन	औसत फैट	औसत एस. एन.एफ.	
36	230	5.5	8.5	



दुग्ध संकलन परिक्षण के कार्य में काफी समय लगता था एवं सम्पूर्ण पारदर्शिता का अभाव महसूस किया जाता था।

समिति में डी.पी.एम.सी.यू. लगने के पश्चात दुग्ध संकलन एवं परीक्षण में समय कम लगता है और साथ ही पारदर्शिता बढ़ने से त्रुटिया नगण्य हुई हैं। योजनान्तर्गत डी.पी.एम.सी.यू. लगने के पश्चात दुग्ध प्रदायकों की संख्या दुग्ध की मात्रा एवं उसकी गुणवत्ता में हुए सुधार का विवरण तालिका 1 में दिया गया है।

दुग्ध गुणवत्ता में हुए सुधार के फल-स्वरूप दृग्ध उत्पादकों को गुणवत्ता के आधार पर दूध का उचित मूल्य मिलने के कारण उनके लाभ में भी वृध्दि हो रही है। समिति ग्राम में विस्तार बैठक के दौरान दुग्ध उत्पादकों द्वारा समिति में डी.पी.एम.सी.यू. लगने के पश्चात दुग्ध संकलन एवं परीक्षण प्रणाली पर सन्तोष व्यक्त किया गया। सिमिति की प्रगित के लिए दुग्ध उत्पादकों ने नियमित दुग्ध उत्पादन में वृद्धि करने का आश्वासन दिया।

# कृत्रिम गर्भाधान कार्यकर्त्ता विनोद शर्मा की सफलता की कहानी







कि त्रिम गर्भाधान कार्यकर्ता विनोद शर्मा शैक्षणिक योग्यता संस्कृत में मास्टर डिग्री गॉव-भैरुसरी पारिवारिक सदस्य - 6 सदस्य ( पत्नी, लड़का, लड़की, माता, पिता)

विनोद शर्मा ने कृत्रिम गर्भाधान कार्यकर्ता के रूप में अन्य कृत्रिम गर्भाधान कार्यकर्ताओं के लिए एक उदाहरण प्रस्तुत किया है। कृत्रिम गर्भाधान के प्रशिक्षण से पूर्व विनोद शर्मा गाँव में अपने पिता की दवा की दुकान पर उनका सहयोग करता था। अक्तूबर 2016 में विनोद शर्मा ने कृत्रिम गर्भाधान का प्रशिक्षण लिया। प्रशिक्षण के बाद विनोद शर्मा अब तक साहीवाल सीमेन से 2946 कृत्रिम गर्भाधान कर चुका है। जो कि INAPH में भी दर्ज है। इसके साथ ही विनोद शर्मा द्वारा 2600 मुर्रा भैसों का कृत्रिम गर्भाधान किया जा चुका है तथा गर्भाधान दर 56% रहा है। विनोद शर्मा की प्रभावशीलता तथा कार्य कुशलता को उसके रिकॉर्ड रखने के तरीके से देखा जा सकता है।

विनोद शर्मा की सफलता को समझने के लिए परियोजना के अन्तर्गत कार्यशील कृत्रिम गर्भाधान केन्द्र की भौगोलिक परिस्थितियों को समझना भी जरुरी है। उक्त कृत्रिम गर्भाधान केन्द्र की भौगोलिक परिस्थितियाँ विषम हैं क्योंकि कृत्रिम गर्भाधान केन्द्र के कुछ भाग में जल भराव (सेम), कुछ हिस्सो में शुष्क मरु स्थल तथा कुछ हिस्सा सिंचित है। इन परिस्तिथितयों को देखते हुए समझा जा सकता है कि केन्द्र के अन्तर्गत आने वाली पशु सम्पदा पोषक तत्वों की कमी से ग्रसित थी। इसी को ध्यान में रखते हुए विनोद शर्मा को कृत्रिम गर्भाधान के साथ-साथ पशुओं में पोषक तत्वों के महत्व, सन्तुलित आहार, कृमिनाशक दवा तथा प्रजनन सम्बन्धी समस्याओं आदि के बारे में परियोजना के परियोजना समन्वयक द्वारा समय-समय पर मार्गदर्शित किया जाता है।

विनोद शर्मा ने उक्त जानकारियों को अपनाकर परियोजना के कृत्रिम गर्भाधान केन्द्र के किसानों को खनिज लवण तथा कृमिनाशक दवा अपने पशुओं को देने के लिए प्रेरित किया इसी का नतीजा है कि विनोद शर्मा ने इतने कम समय में इतने अधिक कृत्रिम गर्भाधान को सफलता पूर्वक किया गया है। विनोद शर्मा द्वारा अबतक 2403 गायों का पंजीकरण किया जा चुका है। विनोद शर्मा द्वारा 160 गायों का दुग्ध मापन किया जा चुका है या किया जा रहा है इनमें से 106 गाय उत्पादन के न्यूनतम मानक को पार कर चुकी हैं। साथ ही अब तक 929 गायों के ब्यांत की रिपोर्ट आ चुकी है। इनमें से 345 बछडियां 584 बछडे हैं। साथ ही 29 नामित बछड़े भी आ चुके हैं। उक्त 29 नामित बछडों में से 3 नामित बछड़ों सभी प्रकार के परीक्षणों के बाद परियोजना द्वारा खरीदे जा चुके है तथा शेष नामित बछड़ों में से 4 नामित बछडों के सैम्पल परीक्षण के लिए भेजे गए।





#### Village Awareness Programme under **VBMPS Sub Project**



▲ Village Awareness Programme was organised by Faizabad Milk Union Ltd. under the VBMPS Sub Project of NDP I on 13 January 2019 in Umapur Kaitholiya, Jana Bazar area of Faizabad. The programme was attended by Women Milk Producers / farmers from the newly formed DCSs under VBMPS Sub Project and the existing DCSs of the milk union. More than 400 milk producers attended the awareness programme, which was facilitated by Veterinarians of the Government, Hospital officials of Dairy Development Department and the milk union. Veterinarians made the farmers aware about basic animal

health and nutritional requirements.

An official from NDDB briefed the gathering on the importance of dairy sector, overview of National Dairy Plan I, various initiatives undertaken by NDDB to support dairy farmers and the importance of participation of women in the dairy sector.

The main objective of a dairy cooperative is to procure & market the milk and also ensure social & economic development of its members. In order to make this type of development sustainable, it is important that people actively participate in the dairy co-operative.

It was conveyed during the programme that 54% of Indian



workforce is engaged in agriculture, of which 37% are women. ("Women Cooperatives for Medicinal and Innovative Nutritional Plants", Sweta Patel 2004).

Dairying at household level is largely the domain of women. Predefined gender roles expect the woman to stay at home, take responsibility of managing household chores, family, child



rearing and cooking-cleaning activities. Dairying also gets included into her household responsibilities. Dairying at household level includes activities like feeding the animal, cleaning the animal as well as the animal shed, taking care of animal health and nutrition, milking the animal etc. As the

mobility of animal is limited, so is the mobility of woman. The woman serves as a contact person to keep the record of animals' health and feeding activities. If the animal is not fed properly, or infected with any disease, it would not produce milk to its optimum capacity.

Milk Producers greatly appreciated the awareness programme which provided an opportunity to learn scientific methods of animal rearing and dairying.

The extension programme is not only a knowledge sharing based system but also has

farmer engagement and feedback to help to drive research and discussion. Under NDP I, various programmes have been conducted to enhance dairy farming activities by increasing production, productivity and ensuring fair price of milk for farmers.

#### **Innovation and Dedication of** Al service Provider

A key to success in field implementation of Progeny Testing Program



nder National Dairy Plan Phase I (NDP I), Progeny Testing (PT) project for production of High Genetic Merit (HGM) Murrah Buffalo bulls is being implemented in selected Artificial Insemination (AI) institutions of Patiala, Sangrur

and Barnala Tehsils of Punjab by Punjab Livestock Development Board (PLDB). The objectives of the PT project are to produce genetically superior Murrah bulls and to achieve a steady genetic progress in the buffalo

population for milk and protein yield, and type characteristics in the villages where PT project is being implemented.

Amandeep Singh is working with Dept. of Animal Husbandry, Govt. of Punjab as a Veterinary Inspector (VI) since 2001 and is

currently posted at Civil Veterinary Dispensary (CVD) Kheri Berna, Dist. Patiala. Apart from providing AI services, he is also responsible for carrying out mass vaccination, deworming, first aid in the seven villages namely Kheri Berna,





Madomajra, Devinagar, Drauli, Tulewal, Gajewas & Chatehra.

Initially, when his AI Center was selected under Murrah PT project, like other AI Service Providers (AISP), he also thought it would be an additional burden on him. He was reluctant to carry out the tagging of animals, maintaining data of various activities in the

given formats and computerised information system at the outset.

Later, when he started interacting with the project officers like Project Coordinator, District Coordinator, Veterinary Officer-PT and Supervisor, he realised that the animals are not suitable for genetic improvement. He was

convinced that implementation of a systematic and well-directed breeding program like PT is a pre-requisite for genetic improvement in milch cattle & buffalo population. With the help and guidance from the project officers, he took the challenge and adopted some innovative approaches to the project in five villages.

In the beginning, the biggest problem was to convince the villagers to participate. Amandeep started organising meetings with the villagers and explained to them the project, its aims, importance of identification of animals through ear tagging about diseases like Brucellosis and its control through vaccination etc. To make the awareness program more effective, he arranged an

LCD projector from his own resources and started showing films on NDP-I on a regular basis to the villagers. This resulted in tremendous impact on the farmers. Although the acceptability of vaccination was initially low, farmers slowly started accepting the programms.

Initially, as per the official requirement, Amandeep was to provide AI in the surrounding villages from 8 am to 2 pm, but in order to cater to the growing demand from villagers, he started providing services at the farmers' doorsteps too.

In the PT project villages, paper formats were provided to all AI service providers to record different field activities. In order to save time spent on filling these formats, Amandeep



designed all formats on his laptop, in MS-Excel. He started recording all data as per specified format in his laptop and started sending them to veterinary officer (PT) Patiala for data entry through "Information Network for Animal Productivity and Health" (INAPH). He received regular feedback on the effectiveness of his service delivery from his

project officials and this has improved his work efficiency. At present he is performing at an average of 35 Als per month, and has authenticated data on conception rate which has increased to about 40% as compared to 34% in the begining.

In order to improve participation of farmers in the project activities, he also designed Flex boards on which photographs of farmers along with female calves born in their household were displayed in the Veterinary Dispensary.

Amandeep Singh with his innovative approach in delivering services to the farmers and his hard work and dedication in maintaining proper records of AI, PD, Calving follow-up, animal movement

etc. has demonstrated that through dedicated and systematic work, a complex programme like PT can be implemented successfully under field conditions. He has thus set an example for others in the project on effective field implementation of the PT project.



# Breed improvement through Pedigree Selection project for Hariana breed under NDP I

SaritaYadav, wife of Baljeet Ram Jivan, is a resident of Kehrikhumar village of Jhajjar district of Haryana. She and her family members have a special interest in rearing the Hariana breed of cows. Although majority of people in Haryana prefer buffalo milk, her family likes to consume cow milk daily. At present the family owns one Hariana cow and a cross-bred female calf. The Hariana cow is in its 3<sup>rd</sup> lactation and the peak yield is reported to be around 12 liters in the current lactation.

Before Haryana Livestock
Development Board (HLDB)
initiated the Pedigree Selection
(PS) project for the development
of Hariana breed under National
Dairy Plan Phase I (NDP I),
semen of Hariana bulls was not

available and farmers had no option but to get their animals inseminated with semen from crossbreds. Many farmers who had Hariana breed of cattle were worried about not getting pure Hariana calves in future generations.

It all started when HLDB submitted a project proposal for pedigree selection in Hariana breed and the Project Steering Committee of NDP I approved the same in August 2013. The Kehrikhumar village of Jhajjar district of Haryana, where Sarita Yadav resides, was one of the villages selected as the project village. After the launch of the PS project, the project coordinator elaborated the objective of the project to the farmers and assured availability of quality frozen semen from Hariana bulls of high genetic merit to inseminate Hariana cows in the project villages.

Sarita Yadav, like many other fellow farmers understood the objective of the project and registered her animal in Information Network for Animal Productivity and Health- INAPH. Her animal was identified with an ear tag bearing an identification number which is unique in the whole country. The animal was also enrolled for milk recording. Subsequently, her animal was inseminated with the semen from a Hariana Bull of high genetic merit.

Now the entire family of Sarita Yadav is eagerly awaiting the birth of Hariana calf. If the calf born is a female one, she would rear it to become a cow. However if the calf is a male one, the project officials have promised her that the calf would be purchased by the project and would be reared to become a bull for future production of quality semen and the same would be used to inseminate

thousands of other Hariana cows in the country. SaritaYadav believes that this process can bring about genetic improvement in Hariana breed of animals and improve their milk production potential.

Initiatives taken by HLDB to implement Hariana PS project in this village and other project villages have developed a lot of interest among farmers to rear Hariana cattle and they have started appreciating the efforts of HLDB for improving indigenous breeds of cattle.

The PS project under NDP I has helped in assuring availability of quality frozen semen from Hariana bulls of high genetic ment to inseminate Hariana cow. As earlier, farmers had no options but to get their animals inseminated with semen from crossbred. Farmers accepted and acknowledged the uniqueness of INAPH software developed by NDDB as a tool for breed improvement.





#### RBP helps in increasing income of farmers



Sagtar Singh of Katlaheri village, Thanesar Tehsil in Kurukshetra district of Haryana belongs to a traditional farmer family. Dairying has been a livelihood for the family for generations, but increasing cost of feeding as well as treatment cost of animals had become serious concern for him. Due to various fertility issues, only one out of his four cows produced milk.

Jagtar Singh was on the verge of quitting dairying, when he came to know about the Ration Balancing Programme (RBP) being implemented by Kurukshetra - Karnal Milk Union, around four months back. In an awareness programme at his village, he was made aware of the benefits of balanced feeding. It was really an eye opener for him. Immediately he approached the Local Resource Person (LRP) of his village, Baljinder Singh, who formulated a balanced feeding schedule for his milking cow (HF cross).

The feed cost per day after ration balancing was Rs. 41 less



than the existing cost, which made him a little apprehensive about the outcome. As there was hardly any other option to try, he decided to follow the recommendation of the LRP.

In a month's time, milk yield of the cow increased by 800g, milk fat improved from 3.2% to 4% and SNF from 7.8% to 8.1%. He heaved a sigh of relief as his returns started rising steadily. Jagtar Singh requested the LRP to provide feed advice for his dry animals also, which were repeat breeders. After three months of

balanced feeding, he was overjoyed to learn that two of his cows have become pregnant. He gives its entire credit to the Ration Balancing Programme. Now he is convinced about the importance of balanced feeding of his dairy animals, especially about the area specific mineral mixture supplementation. He supports the LRP in spreading awareness about the Ration Balancing programme in the village.

### Skill development through Micro Training Centres (MTC)



wo Micro Training Centers (MTC) were sanctioned to Kota Milk Union under Fodder Development activity of NDP I. The Micro Training Centers were initiated on dairy farm premises of two farmers:

- Sardar Bahadur Singh and his daughter-in-law, Amrut Kaur from Digod village, Kota district
- Devkaran Gurjar and his wife, from Chabadiyo Ka Nayagaon village, Bundi district
- These farmers were already involved in implementing improved animal husbandry practices and possessed good infrastructure like healthy high yielding dairy animals, power-operated





chaff cutter, cattle shed, fodder farm, silo pit etc. Proper arrangement for training with the help of posters, printed extension material, audio-visuals as well as cattle shed unit, fodder cultivation plots and chaffed mixed fodder feeding to animals was made. Trainees were selected from backward and remote areas. Efforts were made to expose farmers to practical demonstrations. interactive sessions and practical demonstrations of good animal rearing

- practices, green fodder cultivation and fodder conservation practices.
- More than 4800 farmers from 240 dairy cooperative societies of two districts were trained on scientific method of livestock rearing and green fodder cultivation. 24 posters related to fodder production & conservation were displayed at each MTC, which were explained by the training in-charge / village level supervisors for the farmers for scientific livestock rearing. Every family of trainee farmers

- were also provided
  "Pashupalan Nirdeshika"
  one of the manuals for
  improved animal husbandry
  practices for references in
  future.
- Some of the significant benefits obtained by establishing MTC are:
- Increase in sale of quality fodder seed due to spread of awareness about improved fodder seeds and their proper sowing practices.
- Adoption of chaff cutters by farmers and increase in sale of chaff cutters.
- Farmers were well informed, motivated and are ready to preserve surplus green fodder by making silage.
   During training at MTC, many farmers came forward and demanded to have silage making demonstrations at their village under NDP I.
   Through MTC, the Milk union has selected 25-30 farmers for silage making demonstration.
- Awareness programme on legume fodder cultivation &

- feeding to animal is appreciated by the farmers.
- Production of green fodder throughout the year by planting of Hybrid Napier Grass near wells was well received by the farmers. Many farmers, who visited NDDB, Anand, brought at Hybrid Napier Grass planting material from NDDB and planted them on their fields. MTC trainer Shri Devkaran Gurjar and his three brothers have planted Hybrid Napier Grass (which they bought from KVK, Kota) at MTC.
- In addition the trained farmers got information on good herd management practices like concrete manger for feeding, potable drinking water, deworming of animals, addition of mineral mixture, salt etc. By attending the training programmes at MTC, farmers got motivated and have begun to adopt improved animal husbandry practices & livestock rearing.

#### **CONTACT**

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