



**NATIONAL  
DAIRY  
DEVELOPMENT  
BOARD**

# Diary

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केवल निजी प्रचलन के लिए / FOR PRIVATE CIRCULATION ONLY

## Hon'ble Prime Minister of India inaugurates Mujkuva Solar Pump Irrigators Cooperative Enterprise created by NDDB



**S**hri Narendra Modi, Hon'ble Prime Minister of India inaugurated the Solar Pump Irrigators Cooperative Enterprise (SPICE) created by NDDB at Mujkuva village of Anand district in presence of Shri Vijay Rupani, Hon'ble Chief Minister of Gujarat on 30 September 2018.

In line with Hon'ble Prime Minister's vision of farmers installing solar pumps in the field and selling the surplus energy to GRID, NDDB has developed this Saur Urja Utpadak Sahakari Mandli Ltd at Mujkuva. In this unique experiment, 11 farmers have so far installed solar pumps in the field. They have surrendered their access to the

state subsidised electricity and opted for solar energy.

NDDB with assistance from Rajasthan Electronics and Instruments Ltd (REIL) and International Water Management Institute (IWMI) have helped these farmers create their own micro grid, which will enable them to sell the surplus solar energy to the DISCOM (MGVCL). Mujkuva is the first GRID connected farmers' Solar Pump Irrigators Cooperative Enterprise.

Shri Dilip Rath, Chairman, NDDB said, "While it will help power companies in reducing the subsidy burdens, earn renewable energy certificates and



reduce transmission & distribution loss, major benefit will be to farmers as an additional source of income. Incentivising farmers by the selling option will optimise their water usage which is of high significance for growth of dairying.”

The Government of India has announced Kisan Urja Suraksha Evam Utthan Mahabhiyan (KUSUM) in the 2018-19 budget and the Gujarat Government too has also announced and implementing the Saurshakti Kisan Yojana (SKY) to promote this concept.



SPICE, Mujkuva will become a role model for all the potential farmers and implementers.

<b>Project details</b>	
Total number of farmers who availed pumps	11
Capacity of pumps	10 HP/15 HP
Total capacity of solar panels	150KW
<b>Financials</b>	
Total project cost (₹ Cr)	₹1.84 Cr.
NDDB contribution (%)	68%
REIL contribution (%)	20%
Farmer contribution (%)	12%
<b>Power purchase rate (For units sold to Discom)</b>	
Rate offered by DISCOM	₹3.24/unit
Additional incentive offered by IWMI over and above power purchase rate	₹2.5/unit
Effective rate	₹5.75/unit
<b>Benefits of the project</b>	
Cost of irrigation for farmers	Zero/NIL
Additional income earned through sale of energy	Around ₹80,000/year per farmer
Savings in subsidy to DISCOM	Around ₹6.5/ year for 11 farmers
Name of Secretary, SPICE, Mujkuva - Shri Labhubhai Patel	

## Mother Dairy's modern milk processing plant at Motihari inaugurated



- With the new facility, Mother Dairy Fruit & Vegetable Pvt. Ltd. will now enter Bihar with poly pack milk, initially to be available across 6 districts - East Champaran, Gopalganj, Muzaffarpur, Siwan, Vaishali and West Champaran.
- Milk will be sourced locally from around 33,000 milk producers, who have been organised into 'Bapudham Milk Producers Company'.

**S**hri Radha Mohan Singh, Hon'ble Minister of Agriculture and Farmers Welfare, Government of India, inaugurated Mother Dairy's state-of-the-art milk processing plant at Math Banwari, near Pipra Kothi in Motihari, Bihar on January 19, 2019. Shri Sushil Kumar Modi, Hon'ble Deputy Chief Minister, Government of Bihar was the Chief Guest.

The Hon'ble Union Agriculture Minister has played a key role in providing market access to the dairy farmers of Motihari and ensuring fair and remunerative prices for their produce. Working towards the cause of rural prosperity, the Union Agriculture Minister inaugurated the Bapudham Milk Producers Company on the auspicious occasion of Gandhi Jayanti in 2017. The Producers Company paved way for a streamlined and transparent milk collection system, wherein farmers started pouring milk.

Today, Bapudham Milk Producers Company is associated with around 33000 dairy farmers from over 900 villages of East and West Champaran. Out of the total farmer count, 51% is represented by women farmers. With a strength of 902 milk pooling points (MPP) and 23 Bulk milk Coolers (BMC), the current milk collection from the region has crossed the 70000 litres per day mark. The institution aims to strengthen its farmer connect by taking the total count to 50000 farmers spread over 1250 villages and procure over 2 Lakh litres of milk per day.





To further strengthen the dairy infrastructure in the region, Mother Dairy has come up with a milk processing plant in a record time of 11 months. Spread over an area of 4.5 acres, the newly built plant has a milk processing capacity of 1 lakh litres/day and entails an investment of around ₹15 crore.

Speaking on the occasion, Shri Dilip Rath, Chairman, NDDB, said, "NDDB, in its endeavour to support and increase the farmers' income, is providing institutional support to develop the dairying practices across the region. The new milk processing facility is aimed to provide a sustainable business model while enhancing the milk productivity in the region." He added, "Formation of Bapudham Milk Producers Company has ensured remunerative returns with direct bank transfer. The farmers associated are also being assisted with interventions like Ration Balancing Programme, AI facilities, cattle feed & mineral mixture, etc. to further help in increasing the productivity of animals."

Shri Rath also thanked the Union Agriculture Minister for his personal involvement throughout and



said that it is under his direction, the initiative aimed towards the prosperity of farmers is now turning into reality.

Commenting on the development, Shri Sanjeev Khanna, Managing Director, Mother Dairy Fruit & Vegetable Pvt. Ltd., said, "With the facility going functional, consumers across the region will now have access to Delhi/NCR's favourite milk brand being available in close vicinity. The new facility houses equipment with latest technology to monitor and record all critical process parameters for ensuring milk quality on a continuous basis. The entire initiative is to establish a viable and sustainable business model of sourcing and marketing of fresh milk."

Shri Saugata Mitra, Director, Mother Dairy Fruit & Vegetable Pvt. Ltd., elaborated, "With the new facility,

Mother Dairy is now entering Bihar with its range of milk variants including Full Cream, Toned, Super T Standardized along with the famed Cow Milk for consumers across 6 districts at around 1000 retail outlets. We plan to sell around 20,000-25,000 litres per day by the end of 2019."



## Workshop on *Solar – A Green Energy Alternate to Augment Dairy Farmers' Income*



**S**hri Raj Kumar Singh, Hon'ble Minister of State for Power and New & Renewable Energy, Govt of India inaugurated NDDB's workshop titled "Solar – A Green Energy Alternate to Augment Dairy Farmers' Income" at the SCOPE Convention Centre, New Delhi on 9 January, 2019. Shri Anand Kumar, Secretary, MNRE, Govt of India; Shri Deepak Gupta, former Secretary, MNRE, Govt of India & Honorary Director General, National Solar Energy Federation of India (NSEFI) and Shri Dilip Rath, Chairman, National Dairy Development Board (NDDB) graced the occasion.

Officials from MNRE, NITI Aayog, NDDB & its subsidiaries; MDs/CEOs of select dairy cooperatives/producer companies; industry representatives from Tata Power, InfiCold, NISE; representatives from donor agencies like World Bank, SDC and KFW; officials from research & consultancy firms like

KPMG, International Water Management Institute (IWMI), GIZ, IIT, Bombay; representatives from electricity distribution companies (DISCOMs) like Mahavitaran, Gujarat Urja Vikas Nigam Ltd (GUVNL), Andhra Pradesh Eastern Power Distribution Company Ltd (APEPDCL) and Industry representative bodies like NSEFI, Solar Thermal Federation of India (STFI) participated in the workshop.

In his inaugural address, the Hon'ble Union Minister said that the entire dairy value chain from village level milk pooling points to product delivery is energy intensive. Extensive use of solar energy in dairy value chain can significantly reduce operational cost and ensure usage of clean energy. Shri Raj Kumar Singh said that NDDB with its mandate of promoting cooperative strategy has played a pivotal role in creating a pan India network of dairy cooperatives.

He further mentioned that the dairy network now has around 1.65 lakh village level dairy cooperatives, 218 district/regional/taluka unions and 24 State Dairy Federations/Apex Milk Unions. Around 15 million milk producers are affiliated to this network. As on March 2018, the network maintains 72 MLPD of processing capacity, 18 MLPD of chilling capacity and 38 MLPD of village level bulk milk cooling capacity. The Union Minister stressed on the need for creating an enabling policy framework to further propagate usage of solar energy utilising the dairy cooperative network for the benefits of farmers.







He conveyed that the Union Govt is promoting solar pumps to ensure usage of clean energy and at the same time reduce the agricultural subsidy burden. GRID connected solar pumps ensure water for free to farmers and help them earn additional income through selling surplus energy.

In his welcome address, Shri Dilip Rath, Chairman, NDDB said that NDDB has started application of Concentrated Solar Thermal technology in dairy processing plants to partly address the need of thermal energy in dairy cooperatives. CST can reduce the annual heat demand of the processing plant from 5 to 15%. With the help of capital subsidy support from MNRE and UNDP, NDDB has completed 15 CST installations in processing plants of dairy cooperatives across four states of Maharashtra, Punjab, Gujarat and Karnataka. The total installed collector area at these locations is around 8,000 m<sup>2</sup> of aperture area.

With successful experimentation of installing GRID connected solar PV systems with storage (if required) in village level dairy cooperatives/milk collection centres, NDDB has started propagation of solar energy run village cooperatives across the country. Support under National Dairy Plan I was also

provided to 125 such installations across 18 states and results have been encouraging. A uniform policy framework with suitable grant support can help solarise entire village level dairy operations, which would reduce energy cost and contribute significantly to environment protection.

Shri Rath informed that the Hon'ble Prime Minister of India inaugurated NDDB-promoted Saur Urja Utpadak Sahakari Mandli Ltd at Mujkuvva village near Anand in Gujarat on 30 September 2018. 11 farmers have surrendered their access to the state subsidised electricity and opted for solar energy and supplying surplus energy to GRID.

The workshop highlighted solar energy as income source for dairy farmers. DISCOMs shared their initiatives and promoted the concept of solar as a remunerative crop. IIT, STFI, GIZ, National Institute of Solar Energy (NISE), Rajasthan Electronics and Instrumentation Limited (REIL) and Energy Efficiency Services Limited (EESL) shared their experiences in application of solar in dairy value chain especially the Concentrated Solar Thermal (CST), industrial heating, bulk cooling and milk collection systems.

## आयुर्वेदिक पशु चिकित्सा पर अंतरराष्ट्रीय सम्मेलन का आयोजन



**श्री**मती कृष्णा राज, माननीय कृषि एवं किसान कल्याण राज्य मंत्री ने 17 दिसंबर 2018 को एनडीडीबी के टीके पटेल सभागार, आणंद में आयुर्वेदिक पशु चिकित्सा पर तृतीय अंतरराष्ट्रीय सम्मेलन का उद्घाटन किया। वर्ल्ड आयुर्वेद फाउंडेशन, गुजरात सरकार द्वारा आयोजित और आयुष मंत्रालय, भारत सरकार द्वारा समर्थित यह सम्मेलन 8 वें विश्व आयुर्वेदिक सम्मेलन का एक हिस्सा है।

एनडीडीबी के अध्यक्ष श्री दिलीप रथ; तमिलनाडु पशु चिकित्सा एवं पशु विज्ञान विश्वविद्यालय के कुलपति डॉ. सी बालाचंद्रन और ट्रांस-डिसिप्लिनरी हेल्थ साइंस एंड टेक्नोलॉजी यूनिवर्सिटी के कुलपति प्रो. दर्शन शंकर ने इस सम्मेलन की शोभा बढ़ाई।

मुख्य अतिथि के रूप में प्रतिनिधियों को संबोधित करते हुए माननीय केंद्रीय मंत्री श्रीमती कृष्णा राज ने यह कहा कि पारंपरिक पशु चिकित्सा औषधि (एथनो-वेटेनरी मेडिसिन - ईवीएम) की लागत-प्रभावकारिता किसानों की आमदनी दोगुनी करने के राष्ट्रीय लक्ष्य के अनुरूप है। ईवीएम सुदूर क्षेत्रों में डेरी किसानों

को तत्काल रोकथाम का विकल्प भी प्रदान करता है। ये नुस्खे किफायती हैं क्योंकि इसे अधिकतर किसान के घर पर उपलब्ध सामग्री से तैयार किया जाता है।

उन्होंने यह बताया कि आज पशुपालन क्षेत्र को कई चुनौतियों, विशेषकर दूध की बेहतर गुणवत्ता एवं दूध में दवा अवशेष इत्यादि का सामना करना पड़ रहा है, जो उपभोक्ताओं के लिए ज्वलंत मुद्दे हैं। इन चुनौतियों से निपटने और बाजार की बढ़ती प्रतिस्पर्धा का सामना करने के लिए डेरी क्षेत्र को शीघ्र तैयार होने की आवश्यकता है। वैकल्पिक उपचार विकल्प ईवीएम

दवाओं, विशेषकर एंटीबायोटिक के प्रयोग में कमी लाने के लिए उपयोगी साबित हो सकता है। एंटीबायोटिक के इस्तेमाल में कमी लाने से एंटीमाइक्रोबियल रेजिस्टेंस (एएमआर) की उत्पत्ति को लम्बे समय तक रोकने में मदद मिलेगी, जो कि पूरे विश्व के लिए उभरता हुआ एक प्रमुख जन स्वास्थ्य संकट है।

उन्होंने इस बात की जानकारी दी कि राष्ट्रीय डेरी विकास बोर्ड (एनडीडीबी) द्वारा ईवीएम के इन नुस्खों को लोकप्रिय बनाया जा रहा है। इसके कारण वैद्यों द्वारा संहिताबद्ध और आयुर्वेद से सिद्ध ज्ञान की समृद्ध परंपरा पुनर्जीवित हो रही है। यह परंपरा क्षेत्र स्तर पर सुरक्षित एवं प्रभावी सिद्ध हुई है।

श्री दिलीप रथ, अध्यक्ष, एनडीडीबी ने अपने संबोधन में कहा कि पारंपरिक पशु चिकित्सा औषधि (ईवीएम) का उपयोग भारत में कई वर्षों से न केवल मनुष्यों, बल्कि पशुओं में होने वाली आम बीमारियों की रोकथाम के लिए किया जाता रहा है। पारंपरिक पशु चिकित्सा हमारे पशुपालक किसानों को एक सरल, किफायती, प्रभावी एवं पर्यावरण सहायक विकल्प





उपलब्ध कराता है। यह पद्धति किसानों को अधिक लाभप्रद, स्वस्थ और स्थायी डेरी मॉडल अपनाने हेतु प्रेरित करने में मदद कर रही है।

श्री रथ ने यह बताया कि पिछले 2 वर्षों से देश के 10 से अधिक राज्यों में एनडीडीबी द्वारा विभिन्न दूध संघों एवं उत्पादक कंपनियों के माध्यम से डेरी पशुओं में होने वाली कई बीमारियों की रोकथाम के लिए इस पारंपरिक पशु चिकित्सा को लोकप्रिय बनाया जा रहा है। किसानों के लाभ के लिए इस पारंपरिक पशु चिकित्सा पद्धति (ईवीपी) की विस्तार सामग्री सभी स्थानीय भाषाओं में विकसित की गई है। इसके परिणाम बहुत उत्साहजनक रहे हैं एनडीडीबी ने इसकी जानकारी विभिन्न अंतरराष्ट्रीय सम्मेलनों में उपलब्ध कराई है। इस पारंपरिक पशु चिकित्सा पद्धति को अधिक समय तक बरकरार रखने के लिए इन नुस्खों की लगातार आपूर्ति करने की आवश्यकता है ताकि किसानों को इसकी संपूर्ण जानकारी उपलब्ध कराई जा सके।

सभी हितधारकों और नीति निर्माताओं ने डेरी उद्योग में इस पारंपरिक पशु चिकित्सा (ईवीएम) को मुख्यधारा में लाने



और पशु चिकित्सा विज्ञान में इसकी अहम भूमिका पर विचार-विमर्श किया। प्रो. दर्शन शंकर; डॉ. सी बालाचंद्रन; डॉ एएम ठाकर, अधिष्ठाता, पशु चिकित्सा विज्ञान कॉलेज, आणंद कृषि विश्वविद्यालय; प्रो. पुन्नियामूर्थी, सेवानिवृत्त प्रोफेसर, वेटरनरी फार्माकोलॉजी एंड टाक्सिकोलॉजी, तनुवास, चेन्नई; डॉ गेटच्यू गेब्रू, अध्यक्ष, इथियोपियाई सोसायटी ऑफ एनिमल प्रोडक्शन, इथियोपिया; डॉ एमएनबी नायर, एमेरिटस प्रोफेसर, टीडीयू, बैंगलोर; डॉ जूलियट डेसीटेकर, इंटीग्रेटिव वेटरनरियन, बेल्जियम वेटरनरी एक्वूपंकचर सोसाइटी, बेल्जियम; डॉ. सतीश कुमार, प्रो. एवं प्रमुख, वेटरनरी गाईनेकोलॉजी एवं आब्स्टेट्रिक्स विभाग, तनुवास, चेन्नई ने पारंपरिक पशु चिकित्सा (ईवीएम) पर अपने बहुमूल्य अनुभवों को साझा किया।



## शाहजहाँपुर महिला दुग्ध उत्पादक सहकारी संघ का शुभारंभ और महिला डेरी सहकारिता जागृति अभियान कार्यक्रम का आयोजन



का पहला महिला दुग्ध संघ है। किसानों को संबोधित करते हुए श्रीमती कृष्णा राज ने बताया कि इस संघ के माध्यम से इस क्षेत्र के डेरी किसानों को उनके द्वारा उत्पादित किए जा रहे दूध की बिक्री के लिए बाजार उपलब्ध कराया जाएगा। इस संघ के माध्यम से हर गाँव में सहकारी समिति स्थापित की जाएगी, जिसके माध्यम से किसानों से दूध उनके गाँवों में ही खरीदा जा सकेगा।

दूध की खरीद में पारदर्शिता लाने के लिए समितियों में अत्याधुनिक तकनीक वाले

**रा**ष्ट्रीय डेरी विकास बोर्ड, आणंद तथा प्रादेशिक को-ऑपरेटिव डेरी फेडरेशन, पराग डेरी द्वारा गन्ना शोध संस्थान के सभागार में 11 अक्टूबर 2018 को शाहजहाँपुर महिला दुग्ध उत्पादक सहकारी संघ का शुभारंभ एवं महिला डेरी सहकारिता जागृति अभियान कार्यक्रम का आयोजन किया गया। इस कार्यक्रम में मुख्य अतिथि के तौर पर श्रीमती कृष्णा राज, माननीय कृषि एवं किसान कल्याण राज्य मंत्री, भारत सरकार, विशिष्ट अतिथि के रूप में श्री लक्ष्मी नारायण चौधरी, माननीय दुग्ध विकास मंत्री, उत्तर प्रदेश सरकार तथा श्री सुरेश खन्ना, माननीय शहरी विकास मंत्री, भारत सरकार मौजूद थे। इस कार्यक्रम में राष्ट्रीय डेरी विकास बोर्ड के अध्यक्ष श्री दिलीप रथ और कार्यपालक निदेशक श्री संग्राम चौधरी तथा डॉ. सुधीर बोबड़े, प्रमुख सचिव, दुग्ध विकास एवं पशुपालन उपस्थित थे। पूरे जिले से आए लगभग 500 किसान भाइयों एवं बहनों ने इस कार्यक्रम में उपस्थिति दर्ज कराई।

इस कार्यक्रम के दौरान शाहजहाँपुर महिला दुग्ध उत्पादक सहकारी संघ का शुभारंभ श्रीमती कृष्णा राज द्वारा किया गया। इस दुग्ध संघ का निर्माण 1 सितंबर 2018 को हुआ। यह संघ पूरे उत्तर प्रदेश

डीपीएमसीयू लगाए जाएंगे, जिसके माध्यम से दूध की जांच किसान के सामने कर उसे उसकी पर्ची वहीं पर दी जाएगी। इसी प्रकार गावों में दूध को ठंडा करने के लिए बल्क मिल्क कूलर को स्थापित करने की योजना है जिससे गाँव स्तर पर ही दूध को ठंडा किया जा सकेगा। इन सभी प्रयासों से न केवल किसानों को फायदा मिलेगा, बल्कि शहरी दूध उपभोक्ताओं के लिए भी पराग ब्रांड के अंतर्गत उच्च गुणवत्ता का दुग्ध एवं दुग्ध पदार्थ उपलब्ध होगा। गाँवों में गठित महिला समितियों में सदस्य केवल महिलाएं ही होंगी तथा उसके संचालन की पूर्ण ज़िम्मेदारी भी उन्हीं की होगी। इस प्रकार से महिलाओं को सहकारिता की पद्धति से व्यवसाय करने का अवसर मिलेगा, जिससे उनके लिए आर्थिक एवं सामाजिक सशक्तीकरण का मार्ग प्रशस्त होगा।

एनडीडीबी के अध्यक्ष श्री दिलीप रथ ने कहा कि भारतीय डेरी उद्योग में महिलाओं के महत्व को कम नहीं आंका जा सकता। देश के अधिकांश क्षेत्रों में गायों और भैंसों के रख-रखाव, उन्हें चारा देने तथा दूध दुहने का महत्वपूर्ण कार्य महिलाएं ही





संभालती हैं। इस संघ के माध्यम से प्रतिदिन करीब 75 हजार लीटर दूध संकलित होने की संभावना है, जिसके मूल्य का सीधा भुगतान महिला सदस्यों के बैंक खाते में किया जाएगा।

दूध व्यवसाय को बढ़ाने से संबंधित तकनीकी इनपुट सहायता कार्यक्रम जैसे कृत्रिम गर्भाधान, चारा प्रबंधन, पशु स्वास्थ्य, पशु पोषण इत्यादि भी चलाये जायेंगे।

उन्होंने बताया कि एनडीडीबी अपने स्तर पर शाहजहाँपुर महिला दुग्ध उत्पादक संघ को आगे बढ़ाने में हर संभव प्रयास करेगी।

किसानों को संबोधित करते हुए श्री लक्ष्मी नारायण चौधरी ने बताया कि यह प्रसन्नता का विषय है कि प्रदेश में दुग्ध सहकारिता के माध्यम से गाय, भैंस पालन कर दुग्ध उत्पादन को बढ़ावा देने में महिला सदस्यों द्वारा भी सक्रिय सहभागिता की जा रही है। अब महिला दुग्ध उत्पादक शाहजहाँपुर महिला दुग्ध उत्पादक सहकारी संघ को अधिक मजबूत बनाएंगी। उत्तर प्रदेश देश में सर्वाधिक दूध उत्पादन करने वाला प्रदेश है। राष्ट्रीय डेरी विकास बोर्ड द्वारा निर्गत आंकड़ों के अनुसार उत्तर प्रदेश में वर्ष 2016-17 में प्रतिदिन लगभग 760.82 लाख किग्रा दूध का उत्पादन हो रहा है, जो देश के कुल दुग्ध उत्पादन का लगभग 18% है। उत्तर प्रदेश में दूध की प्रतिव्यक्ति उपलब्धता 348 ग्राम है, जबकि पूरे भारत में दूध



की प्रतिव्यक्ति उपलब्धता 355 ग्राम है। ग्राम स्तर पर पशुपालन एवं दुग्ध व्यवसाय कृषि के सह व्यवसाय के रूप में प्रचलित हैं। इसमें 70 से 80 प्रतिशत भूमिहीन, लघु एवं सीमांत कृषकों की सहभागिता है और हमने यह भी देखा है कि इस कार्य में महिलाओं की सक्रिय भागीदारी है। गाँव स्तर पर दुग्ध समितियाँ एवं दुग्ध उत्पादन स्वरोजगार के अवसर प्रदान करने के सशक्त माध्यम हैं।

दुग्ध व्यवसाय में पारदर्शिता लाने हेतु दुग्ध विकास विभाग नवीन प्रौद्योगिकी को वृहत स्तर पर उपयोग में लाने हेतु कृतसंकल्पित है। समिति स्तर पर किसानों के भुगतान हेतु ऑनलाइन दुग्ध मूल्य भुगतान की डीबीटी प्रक्रिया अपनाई गई है। जन स्वास्थ्य को ध्यान में रखते हुए प्रदेश सरकार द्वारा हर स्तर पर दूध की गुणवत्ता बनाये रखने के लिए सभी दुग्ध संघों की प्रयोगशालाओं के सुदृढीकरण हेतु आधुनिक परीक्षण पद्धति की स्थापना भी की जा रही है।

गाय के दूध के महत्व को ध्यान में रखते हुए जनपद कन्नौज में एक नवीन प्लांट की भी स्थापना की जा रही है।





## Biotechnology to play significant role in enhancing income of livestock farmers: Chairman, NDDB



Biotechnology Research Centre, Gandhinagar; Dr Amrish Tyagi, Principal Scientist & Head, Animal Nutrition Division, NDRI, Karnal; Dr AK Verma, HoD, Animal Nutrition, IVRI, Bareilly; Dr Pankaj Suman, Scientist, NIAB, Hyderabad; Shri Sangram Chaudhary and Shri YY Patil, Executive Directors of NDDB and experts from NDDB attended the workshop.

The National Dairy Development Board and Department of Biotechnology, Govt of India organised a workshop on Enhancing Farmers' Income through Animal Husbandry using Biotechnological Tools at Dr Kurien auditorium, NDDB, Anand on 23 October 2018. This one-day workshop provided a platform to all the participants for deliberations on prioritizing areas of research in the field of biotechnology to create a road map for increasing income of livestock farmers.

Shri Dilip Rath, Chairman, NDDB; Dr SR Rao, Senior Advisor, Department of Biotechnology, Govt of India; Dr NC Patel, Vice Chancellor, Anand Agricultural University; Dr B Pattnaik, Director, DFMD, ICAR; Dr A K Rawat, Director, Dept of Biotechnology, Govt of India; Dr Neelesh Sharma, Associate Professor, Sher-e-Kashmir University of Agricultural Sciences & Technology, Jammu; Dr CG Joshi, Director, Gujarat

In his keynote address, Shri Dilip Rath said, "In India animal husbandry is a significant economic activity and on an average about 40% of the rural households are engaged in dairying. Income from livestock contributes 10-12% of the total income of our rural households. Due to exponential population growth and increased nutritional demand, the requirement for milk and animal products is steadily rising in India. Hence, it would be an opportunity to our farmers for adopting cost-effective production of quality commodities through livestock to accomplish the market demand, which inevitably multiply their income."

Shri Rath said that raising production of quality milk and other commodities solely through increasing the animal numbers would not be advisable in the long term, because of increasing constraints on availability of feed, fodder and other resources. It is therefore imperative, that the country focuses



on increasing the productivity by improving reproductive efficiencies, enhanced disease management and implementing scientific feeding of the bovine population to meet the growing demand of commodities. Biotechnology can play a significant role in enhancing productivity through the adoption of cutting edge technologies in animal breeding, health and nutrition.

Chairman, NDDB said that biotechnological tools are being used in animal husbandry for several years especially in (a) Animal breeding for artificial insemination, selective breeding, genomic selection, embryo transfer etc. (b) Animal health for diagnosis of diseases, vaccine production and (c) Animal nutrition for increasing digestibility, silage production etc. Due to cost involvement, complexity of technique, non-availability of trained manpower and infrastructure, advantages of biotechnological tools could not be fully utilized. Constant efforts are required for extensive use of biotechnology in animal husbandry particularly for scientific breeding especially considering the

economic traits, thermo-stable as well as therapeutic next generation vaccines, point-of-care tests for rapid disease diagnosis and increasing digestibility for better utilization of feed and fodder.

The theme for first technical session on animal health was poverty alleviation through control of infectious diseases of economic importance. The second session highlighted animal breeding with the theme - Increasing productivity through biotechnology revolution in the field of animal breeding. The third session on animal nutrition & management focussed on the theme - Biotechnology as the magic tool for enhancing productivity by an efficient animal nutrition and management programme. The workshop concluded with a panel discussion on exploring the scope of biotechnology in animal husbandry.

Specific areas of further collaboration and R&D works were identified in animal health, breeding and nutrition, which can be applicable to small-holder farming systems. Action points were recommended that will ultimately boost the income of dairy farmers.



## **NDDB opens up new vista to multiply elite indigenous cows**



**T**wo calves one of Gir breed and other of Sahiwal were born at an interval of one week at the state-of-the art facility created by NDDB in Anand for producing calves through in-vitro fertilization technique. This embryo production technique is commonly referred to as test-tube baby in human beings.

In this technique, first an elite cow which has produced a very high quantity of milk is selected. Such selected cows are referred to as donor cows. From the selected donor cows oocytes are aspirated at a regular interval. This process of non-surgical aspiration of oocytes is referred to as Ovum Pick Up. The oocytes thus collected are then fertilized in petri dish using the semen of top elite bulls. After seven days of development in laboratory, the embryos are transferred to cows having low milk



production potential (surrogate mothers) – one embryo per surrogate cow. The surrogate cow after nine months of pregnancy gives birth to a calf. The donor cow is again aspirated after 2-3 weeks, oocytes are collected and embryos are produced in the laboratory and transferred to surrogate cows. This process is repeated several times in a year. Normally, one cow produces one calf in a year, but through this technique as many as 20-25 calves can be produced from an elite cow in a year. This technique thus can be used to multiply limited number of high producing cows of our finest indigenous dairy breeds like Gir, Sahiwal, Red Sindhi and Tharparkar.

Shri Dilip Rath, Chairman, NDDB said that the in-vitro fertilization technique coupled with selection of donors and sires based on genomic breeding values would revolutionize our method of selecting and breeding animals and help us in accelerating genetic progress in our indigenous breeds manyfolds. He further said that this facility of NDDB will be used for training veterinary professionals in in-vitro technique who in turn would take this technique to the farmer's doorstep. It is hoped that the facility would soon become a centre of excellence.

He conveyed that in establishing the facility NDDB took the help of EMBRAPA, a research organization of the government of Brazil, which has expertise in producing IVF calves of cattle breeds of Indian origin. Collaboration with EMBRAPA would also help NDDB get good Gir genetics from Brazil.



## National Milk Day celebrated

November 26 is Dr Kurien's birth anniversary and we celebrate it as National Milk Day. GCMMF Ltd organised a bike rally originating from Kutch (1<sup>st</sup> route) and Jammu (2<sup>nd</sup> route). The bikers reached Anand on 26<sup>th</sup> November, 2018. Enroute they visited various dairy plants of cooperatives. The grand finale of the bike rally was held at NDDDB campus (central lawn). Chairman, NDDDB presided over the function.

After the grand finale, NDDDB employees celebrated National Milk Day at the TK Patel auditorium. Shri Dilip Rath, Chairman, NDDDB; Ms Nirmala Kurien, daughter of Dr Kurien; Mangal Jit Rai, Chairman, NCDFI and Shri RS Sodhi, Managing Director, GCMMF graced the occasion.

While remembering Dr Kurien, Chairman, NDDDB said that Dr Kurien created NDDDB to replicate the spirit of Anand throughout India. His vision and leadership enabled NDDDB to impact the lives of millions of dairy farmers.

Creative short skits presented by Anandalaya students and NDDDB employees left everyone spellbound. The winners of Dr Verghese Kurien Memorial inter-school competitions were felicitated by the dignitaries. All the events focused on the life and achievements of Dr Kurien.





## HRD emerges as critical differentiating factor in success of dairy cooperatives



While inaugurating a one-day workshop on “Strengthening Human Resource Development and Management functions in Dairy Cooperatives & Producer Institutions” on 21<sup>st</sup> January 2019 at NDDDB, Anand, Chairman, NDDDB said that the workshop is an important step to understand the critical HR issues faced by the dairy cooperatives and then design interventions to address them. Managing Directors/CEOs of more than 42 Milk Unions/Federations and Producer Companies participated in the workshop. Chairman, NDDDB also released a manual on Human Resource Development in Dairy Cooperatives & Producer Companies (prepared by NDDDB). This manual will be a ready reckoner for dairy cooperatives and producer companies to adopt HRD policies and practices.

During the Operation Flood Programme, development of core functions and competencies in procurement,

processing and marketing was emphasised.

Shri Rath conveyed that though initiatives and interventions for large scale capacity building were undertaken during the OF, adoption of HR systems and processes in cooperatives were not focused.

Chairman, NDDDB further said that there is a strong correlation between good HR systems & processes and organization’s effectiveness and superior performance. If cooperatives have to become strong and sustainable in their business, they need to have vision, strong value system and culture that fosters leadership and creates a good working environment.

The workshop deliberated on the findings of a study instituted by NDDDB (conducted by the Institute of Rural Management, Anand) on the theme “HR needs Assessment of Dairy Cooperatives/Producer Institutions” under National Dairy Plan I. The findings indicated the urgent need for induction of





## 47<sup>th</sup> Dairy Industry Conference

Chairman, NDDB delivered the Keynote Address at the 47<sup>th</sup> Dairy Industry Conference with the theme "Innovative Approach for Enhancing Dairy Farmers' Income" organised by the Indian Dairy Association (IDA) at Patna on 7 February 2019 in presence of Bihar's Chief Minister, Dy Chief Minister and Minister for Animal & Fish Resources; Director General, International Dairy Federation and President, Indian Dairy Association.



- ▶▶ right number of human resources with right skill-sets and competencies especially in the areas of marketing, engineering and human resources to face the emerging challenges from private and multi-national players in dairy sector. The study highlighted that new inductees into the organization need to undergo exhaustive induction and socialization to help them understand the philosophy and mission of cooperatives. It also stressed on the urgent need for effective recruitment processes, training & capacity building and employee engagement initiatives.

HR experts from academia and industry shared their experiences about the impact of HRD initiatives/ interventions on increasing organizational effectiveness and performance. It was also felt that Dairy Cooperatives/Producer Institutions should establish HRD departments to ensure focused efforts in this direction.

During the open session that followed, a common understanding emerged - Irrespective of policy limitations that the Dairy Cooperatives/Producer Institutions face, it is important to take lead in

introducing HRD initiatives focused on organizational capacity building, which will help them succeed in the long run.





## NCDFI eMarket mobile application

Shri Dilip Rath, Chairman, NDDB launched the eMarket mobile application of National Cooperative Dairy Federation of India Ltd at Dr Kurien Auditorium, NDDB, Anand on 31<sup>st</sup> January 2019. Shri Mangal Jit Rai, Chairman, NCDFI Ltd; Shri Rasik Parmar, Chairman, Chhattisgarh State Cooperative Dairy Federation Ltd and representatives from other dairy cooperatives graced the occasion.

While launching the mobile application, Shri Rath said that the Govt of India has visualized a digital India where farmer owned institutions are empowered with real-time information to be connected with the markets. In line with Govt of India's digital India dream, NCDFI has created this android based eMarket application to ensure transparent dealings.

With NDDB's guidance, NCDFI had initiated e-portal 'NCDFI eMarket' for trading of dairy commodities. This online marketplace deals with bulk buying and selling of various products required by dairy cooperatives throughout the country.

Presently, products traded through the portal are dairy commodities, cattle feed ingredients, packaging



materials, edible oils, sugar, etc. The online marketplace offers the best price at a given time for both the buyer and seller. The annual turnover of products traded is around ₹4,000 crore in value. The NCDFI eMarket application enables users to be updated with customized auction information such as auction notices, auction results, etc.



## Annual convention of ISSAR

Chairman, NDDB was the chief guest at the 34<sup>th</sup> Annual convention of Indian Society for Study of Animal Reproduction (ISSAR) and the International Symposium on "Productivity Enhancement through Augmenting Reproductive Efficiency of Livestock for Sustainable Rural Economy" held at Anand Agricultural University, Anand.

## Organic farming

NDDDB organised a 5-day training programme on organic farming at Bhaikaka Krishi Kendra, Anand for women dairy farmers of West Bengal's Sundarban Milk Union during 7-11, January 2019. Chairman, NDDDB interacted with the trainees and presented training certificates. He



stressed on the need to create marketing linkages through dairy cooperative network for organic produce of the farmers of West Bengal and north eastern states.

*NDDDB organized a Regional i-DIS Workshop for Milk Unions of Madhya Pradesh, Gujarat and parts of Rajasthan during 17-18 January 2019.*



## IRMA's PGDMX (R) programme

Chairman, NDDDB inaugurated IRMA's newly introduced 15-month Executive Post Graduate Diploma in Management (Rural) or PGDMX (R). Classroom term for the first batch of 31 participants commenced from 7<sup>th</sup> January, 2019.

While interacting with the first batch, Chairman, NDDDB said that the programme would add value to the cooperative leadership and eventually empower the rural sector. Prof Hitesh Bhatt, Director, IRMA briefed the participants about the PGDMX (R) programme and the challenges it will bring in terms of their academic, socio-cultural as well as conceptual understanding.



*Chairman, NDDDB launched organic fruits, vegetables, cereals, pulses and spices at Safal outlets in Delhi on 22 December 2018*



## Seminar on Aflatoxin: Strategies for reduction & finding solutions



Chairman, NDDB inaugurated a national seminar on “Aflatoxin: Strategies for reduction & finding solutions” at NDDB’s Dr Kurien auditorium on 28 February 2019. Ms Rita Teatota, Chairperson, FSSAI delivered the keynote address. Policy makers, scientists, cattle feed manufacturers, officials from regulatory bodies and professionals from dairy industry discussed the current scenario pertaining to the prevalence of

Aflatoxins in milk & feed and identified appropriate measures to minimize the incidence of the same.

Milk is highly nutritious and rich in macro and micro-nutrients for growth and development. Since milk is consumed by all, it is apt that proactive measures are taken to make it safe.

Aflatoxins are a group of mycotoxins that pose hazards to human health owing to their carry-over from feed to milk. The contamination of milk with Aflatoxin is a worldwide concern. The fungi responsible (present in soil) is native to warm arid and tropical regions like India. Under favourable conditions the fungus has the ability to grow on feed and feed ingredients.

In view of the health implication Aflatoxin poses to humans, there is a need to devise suitable technologies for controlling aflatoxin growth in feed and reduce carried over aflatoxin in milk through processing interventions.

## Workshop on Environment & Social Management

A pan-India workshop on Environment and Social Management (E&S) under NDP I was conducted at NDDB, Anand on 19 December 2018. Ninety-three participants from 81 End Implementing Agencies (EIAs), NDDB and World Bank participated. The participants shared their experiences on environmental protection and social inclusion under NDP I and beyond.





## सोलर रूफ टॉप पैनल स्थापित कर सौर ऊर्जा उत्पादन की तरफ पहला कदम

राष्ट्रीय डेरी विकास बोर्ड, आणंद के प्रयास से मध्य प्रदेश के उज्जैन दुग्ध संघ के अंतर्गत खेड़ाखजूरिया दुग्ध उत्पादक सहकारी समिति ने सोलर रूफ टॉप पैनल स्थापित कर सौर ऊर्जा उत्पादन की तरफ पहला कदम बढ़ाया है साथ ही दुग्ध संघ के कार्यक्षेत्र में मारुखेड़ा महिला दुग्ध उत्पादक सहकारी समिति में



पर्यावरण-मित्र जैवगैस या बायोगैस एवं जैविक खेती को बढ़ावा देने के लिए फ्लेक्सी बायोगैस यूनिट महिला दुग्ध उत्पादक श्रीमती अनीता मेहता के घर में स्थापित किया है। बायोगैस से स्वच्छ व सस्ती ऊर्जा आपूर्ति तथा ग्रामीण पर्यावरण की सफाई के साथ ही उच्च कोटि की कार्बनिक खाद की भी प्राप्ति होती है।

## मधुमक्खी पालन : एक बेहतर रोजगार का साधन एवं कृषि उपज की वृद्धि में सहायक

राष्ट्रीय डेरी विकास बोर्ड (एनडीडीबी), देश के डेरी नेटवर्क का उपयोग कर किसानों के बीच वैज्ञानिक मधुमक्खी पालन को बढ़ावा देने का प्रयास कर रहा है। इस गतिविधि को झारखंड में आगे बढ़ाने के लिए एनडीडीबी, झारखंड मिल्क फ़ैडरेशन (जेएमएफ़), रांची के द्वारा राष्ट्रीय मधुमक्खी बोर्ड (एनबीबी) की सहायता से मधुमक्खी पालन पर दो दिवसीय राज्यस्तरीय कार्यशाला का आयोजन 20-21 दिसंबर, 2018 को देवघर जिला, झारखंड में किया गया। इस कार्यशाला में झारखंड के विभिन्न जिलों से आए 325 से अधिक किसानों ने प्रतिभागिता की।

कार्यक्रम का संचालन राष्ट्रीय मधुमक्खी बोर्ड की सदस्य समिति तनिष्क ग्रामीण सेवा संस्थान, बागपत, उत्तर प्रदेश के द्वारा किया गया। कार्यक्रम के तकनीकी सत्रों में किसानों को शहद के अलावा मधुमक्खी पालन से कई अन्य बहुमूल्य उत्पाद प्राप्त करने के बारे में बताया गया, जिनमें प्रमुख हैं, मोम, पराग, रॉयल जेली, प्रोपोलिस तथा मधुमक्खी विष। किसानों को वैज्ञानिक मधुमक्खीपालन के लिए जरूरी उपकरण की जानकारी भी दी गयी।

## गणतंत्र दिवस समारोह



26 जनवरी 2019 को 70 वें (सत्तरवें) गणतंत्र दिवस के सुअवसर पर राष्ट्रीय डेरी विकास बोर्ड, आणंद में श्री दिलीप रथ, अध्यक्ष ने प्रातः 9.00 बजे मुख्य द्वार, एनडीडीबी, आणंद के पास ध्वजारोहण किया, जिसमें एनडीडीबी कार्मिकों तथा उनके परिवार के सदस्यों ने हर्ष व उल्लास के साथ भाग लिया। इस दौरान सुरक्षा कार्मिकों ने भव्य परेड का आयोजन किया तथा राष्ट्रीय ध्वज को सलामी दी।

इस सुअवसर पर श्री रथ, अध्यक्ष, एनडीडीबी ने सभी उपस्थित एनडीडीबी कार्मिकों को बहुत बधाई एवं शुभकामना दी तथा अपने संबोधन में कहा - आज के दिन हम राष्ट्र के उन सारे महानुभावों को श्रद्धांजलि देते हैं जिन्होंने आजादी के बाद देश को नया संविधान दिया और संविधान के ढांचे के भीतर देश को मजबूती के साथ प्रगति की ओर ले जाने में अपना महत्वपूर्ण योगदान दिया। ठीक इसी तरह, हम राष्ट्रीय डेरी विकास बोर्ड के संस्थापक डॉ. कुरियन और उनके सहयोगियों को याद करते हैं जिनकी दूरदृष्टि और मार्गदर्शन से देश दूध उत्पादन के क्षेत्र में आत्मनिर्भर बन सका।

आगे, उन्होंने इस बात पर गर्व व्यक्त करते हुए कहा कि आप सभी देश के डेरी किसानों की आजीविका सुनिश्चित करने के लिए विभिन्न कार्यक्रमों में अपना निरंतर योगदान दे रहे हैं। आपने न केवल डेरी से जुड़ी गतिविधियों जैसे कि मधुमक्खीपालन, बायोगैस उत्पादन, सौर ऊर्जा उत्पादन इत्यादि की दिशा में काम किया है, बल्कि पशु उत्पादकता और स्वास्थ्य में सुधार के लिए विभिन्न कार्यक्रम परिचालित किए हैं। हमें पूरा विश्वास है कि इन सभी पहलों द्वारा हम दूध उत्पादन के क्षेत्र में देश को निरंतर आत्मनिर्भर बनाए रख सकेंगे और राष्ट्र निर्माण में अपना योगदान दे सकेंगे।

अंत में बोहो नर्सरी के बच्चों को चॉकलेट वितरित किए गए तथा जलपान के साथ कार्यक्रम संपन्न हुआ।





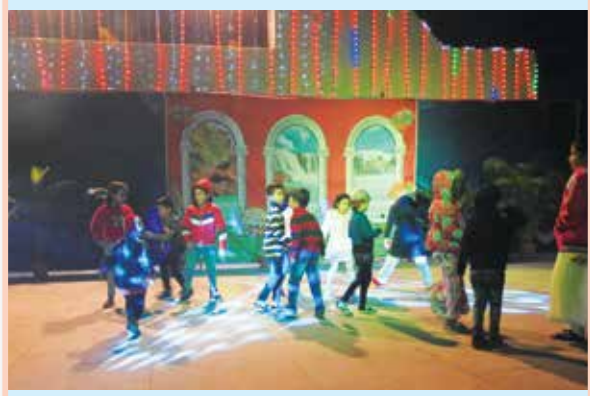


BOHO Round Up

## Christmas



## New Year



## स्वच्छता ही सेवा







राष्ट्रीय  
डेरी  
विकास  
बोर्ड

संपादन एवं डिजाइन: जन संपर्क एवं संचार विभाग, एनडीडीबी, आणंद 388001  
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