वर्षा जोशी, भा.प्र.से.
Varsha Joshi, I.A.S.

सत्यमेव जयते

अपर सचिव
भारत सरकार
मत्स्यपालन, पशुपालन एवं डेयरी मंत्रालय
पशुपालन एवं डेयरी विभाग
कृषि भवन, नई दिल्ली–110001

Additional Secretary
Government of India
Ministry of Fisheries, Animal Husbandry and Dairying
Department of Animal Husbandry and Dairying
Krishi Bhawan, New Delhi-110001

D.O. No: N-05015/20/2024-CDD

Dated the 22nd October 2024

Respected Colleague,

The Department of Animal Husbandry and Dairying (DAHD) is pleased to present several significant developments that mark a new era in India's livestock and dairy sectors. In alignment with the Hon'ble Prime Minister's vision of "Make in India" and "Atmanirbhar Bharat," these initiatives reflect our commitment to fostering innovation, improving productivity, and providing cost-effective solutions to our farmers. I would like to take this opportunity to highlight four major initiatives that are pivotal for the future of our livestock and dairy sectors. These technologies are ready for procurement and utilization for breed improvement and livestock products marketing.

1. Indigenously Developed Bovine Sex-Sorted Semen Production Technology

Launched by the Hon'ble Prime Minister on 5th October, 2024, this technology represents a crucial step forward in enhancing the productivity of India's bovine population. With over 30 crore bovines, constituting 18% of the world's bovine population, India faces challenges due to the reduced utility of male bovines and an increasing strain on resources. Until now, sex-sorted semen technology, which facilitates the birth of female calves with around 90% accuracy, was unaffordable for many farmers, as technology was available only with multinational corporations. The Department, through National Dairy Development Board (NDDB), has successfully developed an indigenous sex-sorting machine, which will reduce the cost of sex-sorted semen doses from approximately ₹1,000 to ₹250. This will not only enhance farmer incomes but also significantly reduce the population of stray cattle over the next five years. This technology has already been installed at CFSP&TI Hesaraghatta, Bengaluru and can be rolled out swiftly as per requirements of the States.

2. Unified Genomic Chip for Cattle and Buffaloes

Also launched on 5th October, 2024, the Unified Genomic Chip for cattle and buffaloes marks a pioneering effort in genomic selection tailored to India's indigenous breeds. While genomic selection is common in developed dairy nations like the USA and Germany, their technologies are designed for exotic breeds such as Jersey and Holstein Friesian, which differ genetically from Indian breeds. In response, the Department through NDDB under the Rashtriya Gokul Mission, has developed unified genomic chips namely the "*Gau Chip*" for cattle and the "*Mahish Chip*" for buffaloes. This unified genomic chip with higher reliability has been developed using genomic data generated by NDDB, NBAGR and NIAB. These chips, now available to farmers, will enable the early identification of high-quality bulls, enhancing productivity and genetic improvement. This genomic selection is provided through a unified portal managed by NDDB (https://genomics.nddb.coop/) and associated institutions, offering a comprehensive service to farmers across the country.

3. Indigenously Developed Media for IVF

The indigenous media for *in-vitro* fertilization (IVF), launched on 13th September, 2024, at the Monsoon Meet organized by DAHD at Bhubaneswar, represents another breakthrough. This initiative is essential for rapid genetic improvement, achieving results in one generation (three years) rather than the traditional seven generations (21 years). This indigenous media developed by NDDB, offers a cost-

effective alternative to expensive imported media. The technology will significantly enhance the productivity of female calves, increasing farmers' incomes and boosting India's dairy sector by providing more affordable access to IVF. This media is available in small packing and useful for all bovine IVF labs in the country. For obtaining IVF media, bovine IVF labs may contact NDDB for more information.

4. Livestock Product Traceability Platform

To address traceability issues in the dairy sector, Hon'ble Home Minister launched the Livestock Product Traceability Platform on 22nd October, 2024 under the National Digital Livestock Mission (NDLM). The traceability platform, developed in partnership with GS1 India, enables end-to-end tracking of dairy products. By integrating data from the NDLM Bharat Pashudhan Database and Enterprise Resource Planning (ERP) solutions, the journey of milk from collection to retail can be traced. The QR codes will provide consumers with detailed product information, while producers can optimize internal processes. All interested Dairy Cooperatives/ Organizations/ Individuals may contact Dairy Division of DAHD for more information on the solution.

Each of these initiatives is designed to support the long-term growth and sustainability of India's livestock and dairy sectors. Through technological advancements and indigenously developed solutions, we are ensuring that farmers across the country have access to affordable, high-quality services. The Department remains committed for delivering innovations that strengthen the backbone of our rural economy.

Yours Sincerely,

22/10/24

(Varsha Joshi)

All Principal Secretaries/Commissioners/ Animal Husbandry Department of State Government / UTs (as per list)

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Yours sincerely,

Sd/-

(Varsha Joshi)

All Principal Secretaries/Commissioners/ Animal Husbandry Department of State Government / UTs (as per list)

Copy to:

1. The Chairman National Dairy Development Board
2. The Managing Directors, Milk Federation (All Federations as per list)
3. The Directors, Animal Husbandry Department (All States/UTs as per list)
4. CEO, Livestock Development Boards (All States/UTs as per list)
5. DC (DD)

22/10/24

(Varsha Joshi)