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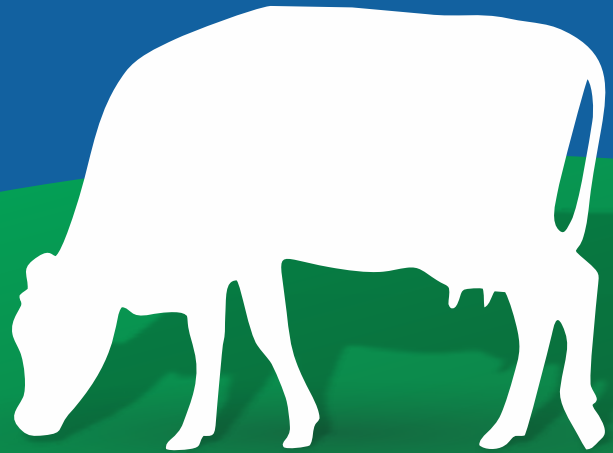
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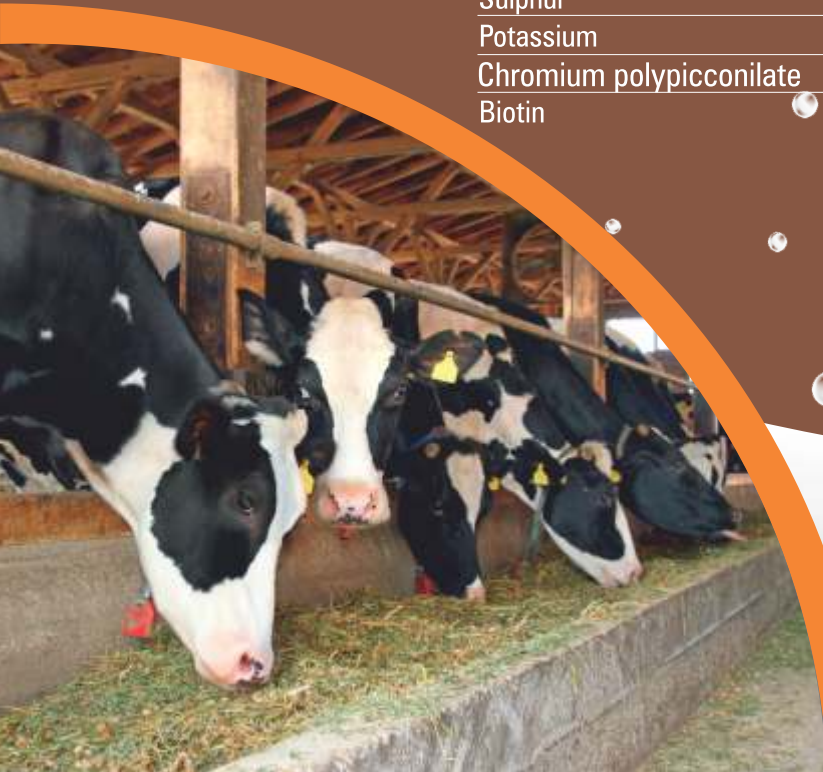
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# From the Pen of Chief Editor



## Vaccination Protocols: Ensuring Healthy Cattle and Sustainable Agriculture

Vaccination protocols are a crucial aspect of modern agriculture, safeguarding the health and productivity of cattle herds while contributing to sustainable farming practices. These protocols not only prevent diseases but also promote animal welfare, reduce economic losses for farmers, and support global food security efforts.

Cattle, as one of the most vital sources of meat and dairy products worldwide, play a crucial role in meeting the nutritional needs of billions of people. However, cattle are susceptible to various infectious diseases, such as bovine respiratory disease, brucellosis, foot-and-mouth disease, and bovine viral diarrhea, which can cause substantial economic losses, disrupt the food supply chain, and pose a risk to public health.

Cattle herd immunization through well-established vaccination protocols is the most effective means to combat these diseases. By implementing vaccination strategies, farmers can significantly reduce the incidence and spread of infectious diseases within their herds, improving animal health, well-being, and overall productivity. Moreover, it minimizes the need for antibiotics, reducing the risk of antibiotic resistance and supporting responsible farming practices.

One of the primary benefits of vaccination protocols in cattle herds is their ability to prevent disease outbreaks. When unvaccinated animals are exposed to infectious agents, the disease can spread rapidly within the herd, leading to significant suffering among the animals and economic losses for farmers who may lose valuable cattle due to illness or even death. Vaccination helps create a barrier of immunity within the herd, making it more difficult for diseases to gain a foothold. By ensuring that a large proportion of the cattle population is immunized, farmers can reduce the risk of disease transmission and minimize the impact of outbreaks when they do occur. This proactive approach not only saves money but also reduces the need for disease treatments, further benefiting animal welfare and environmental health.

Vaccination protocols also contribute to the economic viability of cattle farming. The cost of treating sick cattle and the potential loss of valuable animals during disease outbreaks can be financially devastating for farmers, while the cost of vaccines and the time invested in administering them are relatively small compared to the potential losses from disease. By implementing vaccination strategies, farmers can protect their investments and ensure the long-term profitability of their operations.

In conclusion, vaccination protocols are the linchpin of cattle herd immunization, ensuring the health, welfare, and productivity of cattle herds while contributing to sustainable agriculture. By preventing disease outbreaks, promoting animal welfare, and supporting economic viability, vaccination plays a pivotal role in modern livestock management and is a key component of efforts to achieve global food security, particularly in developing countries where livestock are central to livelihoods and nutrition.

*Vishal*

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# Effective Vaccination Protocols for Dairy Cattle Herds

Priyanka Kumari<sup>1</sup>, Priyanka M. Kittur<sup>2\*</sup> and Yallappa M. Somagond<sup>3</sup>

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## Introduction

Infectious diseases threaten dairy cattle health and welfare and can decrease productivity and profitability. Vaccination programmes for cattle herds are intended to protect the animals from infectious organisms such as viruses, bacteria, and protozoans that cause disease. Vaccines stimulate the immune system of dairy cows, calves, and heifers causing them to produce a protective response against an organism. If the immune system is ever infected with that organism, it will "remember" how to respond to it.

Vaccines cannot prevent an animal from being exposed to infectious organisms, but they can improve an animal's ability to fight off infection or lessen the severity of disease if it does occur. They should be regarded as a form of protection against a potential disease threat.

### Purpose of vaccination:

Vaccination is done to protect the herd from dangerous diseases for health, economic, and welfare reasons. To provide protection, the immune system must develop memory. The goal of each vaccination and booster is to provide the necessary protection by priming the immune system to recognise the disease. Hopefully, you will never need its defences, but they are there to help prevent potential health disasters if they are required.

Vaccines are designed primarily to prevent disease caused by infection. The decision to use a vaccine is typically based on a risk-

cost analysis, which states that if the risk of infection in a herd is high and the expected economic loss associated with the disease is also high, then vaccination is recommended

### Developing Immune Protection:

Vaccination and immunization are not the same thing. The act of administering the vaccine is referred to as vaccination. Immunization is the animal's reaction to vaccination, and it is an immunization that provides disease protection. We must acknowledge that protective immunity necessitates not only the presence of circulating antibodies (humoral immunity) but also cell-mediated immunity (the actions of sensitized T lymphocytes) and mucosal immunity (the presence of antibodies on mucosal surfaces). A vaccination programme must therefore produce good humoral, cell-mediated, and mucosal immunity in order to provide optimal disease protection.

When given to young calves, vaccines are frequently ineffective in eliciting new antibody production. Young animals have a functional immune system that can respond to vaccines or antigens, but it is immature when compared to older animals and may not respond as effectively. Antibodies obtained from the dam via colostrum, which protect the calf from many infectious diseases, may also block and destroy the antigens in the vaccine. This condition is known as maternal antibody. This phenomenon is known as maternal antibody interference, and it is one of the reasons why very young

calves are not vaccinated against certain infectious diseases. Vaccines, on the other hand, can elicit an effective immune response even in newborn animals. Consult your veterinarian before administering vaccines to animals younger than 4 to 6 months old.

**Timing of Vaccination:**

The interval between vaccination and infection challenge is an important factor in vaccine success. Ideally, animals should have enough time to develop peak antibodies before an anticipated challenge, such as shipping and group mixing. If a killed vaccine is used, the first dose should be given 6-8 weeks before shipping and the second dose should be given 2-4 weeks before shipping and mixing.

**Types of Vaccines:**

There are three main types of vaccines:

1. Modified live vaccine (MLV),
2. Killed vaccines and
3. Chemically altered vaccine.

The “core” vaccinations are determined by the impact of the diseases, the likelihood of exposure, and the risk of unprotected exposure.

**1. Modified Live Vaccines:**

Modified-live or attenuated (weakened) vaccines contain live antigens that can replicate in the animal and more closely mimic a true infection response. As a result,

ML vaccines provide better immune response and protection. ML vaccines have the potential to cause a mild infection and may not be suitable for use in all animal classes, including pregnant or nursing cows.

**2. Killed Vaccines or Toxoids:**

Killed vaccines (KVs) and toxoids contain organisms or subunits of organisms that do not replicate or reproduce themselves in the animal following administration. Because they do not contain a live antigen capable of reproducing or causing disease in the animal, killed vaccines are generally considered to be safer than modified-live vaccines. However, because an adjuvant is added to a killed vaccine to stimulate the immune response, and because more antigen is used to make the vaccine, there are more adverse reactions. Killed vaccines are safe to use in any animal, including pregnant cows.

are made up of modified live organisms that have been altered in such a way that the virus will replicate in the body, but replication stops once the virus reaches body temperature (temperature-sensitive virus) so it cannot cause disease. Produces similar immune response as modified live vaccines but the duration of immunity is not considered to be as long.

**Booster Vaccination:**

When young animals are first vaccinated, a second, or booster, vaccination is frequently required a few weeks later. To provide optimal protection from killed vaccines, a booster vaccination is unquestionably required. When and if a booster vaccination is required, the label instructions will state. Failure to administer the booster at the appropriate time may result in an adult animal that is only partially protected, even if it is vaccinated every year thereafter.

Advantages	Disadvantages
There is no chance of the vaccine organism spreading between animals.	Booster vaccination is necessary.
No on farm mixing required.	More expensive than modified live vaccines.
Minimal risk of causing abortion.	More likely to cause allergic reactions and post-vaccination lumps.
Many diseases are treated with it.	Slower onset of immunity.

**3. Chemically Altered Vaccines:**

Chemically altered vaccines (CAVs)

The time interval between primary and booster vaccinations is important. Some producers may find it difficult to administer booster vaccinations within the time frame specified on the label, which is typically 3 to 6 weeks after primary vaccination which leads to failure of the vaccination program.

**Vaccine Handling:**

Inadequate nutritional status, poor animal health status at vaccination, and improper vaccine handling can all lead to vaccine failure. A failed

Advantages	Disadvantages
One initial dose may be sufficient, boosters are occasionally required.	Risk of causing abortion or temporary infertility. MLV should be given 6 to 8 weeks before breeding season.
Modified live vaccines stimulate faster, stronger, and longer-lasting immunity than killed vaccines.	It should be mixed on-farm and used within 30 minutes after mixing.
Less likely to cause allergic reactions and post-vaccination lumps than killed vaccines.	
Less expensive than killed vaccines.	

3

Advantages	Disadvantages
Shares many advantages with modified live vaccines.	Two initial dose is necessary.
Minimal risk of causing abortion.	More expensive than modified live vaccines.
Safety is similar to killed vaccines.	It should be mixed on-farm and used within 30 minutes after mixing
	Slower onset of immunity than modified live vaccine.

vaccine costs more than the amount of product in the syringe; it can result in loss of gain or even death for an entire herd of calves. If the product is harmed due to improper handling, even the best vaccine programme will fail. For example, if the label directs that a vaccine be stored at temperatures ranging from 35 to 45 degrees Fahrenheit, the vaccine should be refrigerated. Vaccines should not be frozen or kept in direct sunlight.

**Role of nutrition in Vaccination:**

Meeting an animal's nutritional needs is critical for its immune system's proper development, maintenance, and function. Among other health benefits, good nutrition can improve the effectiveness of vaccines and provide cattle with longer-lasting protection. A cattle nutrition programme must include energy, protein, trace minerals, and vitamins to achieve a nutritional status that supports immune responses. Minerals like copper, selenium, and zinc are only needed in trace amounts in the diet; however, if the forage lacks some of these minerals and if they aren't included in a diet or a free-choice mineral mix, the immune system may suffer.

**Route of Injection:**

The only acceptable injection site is in the neck, both for intramuscular and subcutaneous injections out of which the subcutaneous route is preferred. Some products can cause

significant muscle damage when injected intramuscularly, so avoid injecting anything in the animal's top buttock or rump. Although antibiotics are also often administered via injection, treating an animal with one of these drugs is not a vaccination but rather a treatment once an infection has occurred.

**Important factors to consider when vaccinating cattle:**

- Carefully follow the manufacturer's instructions.

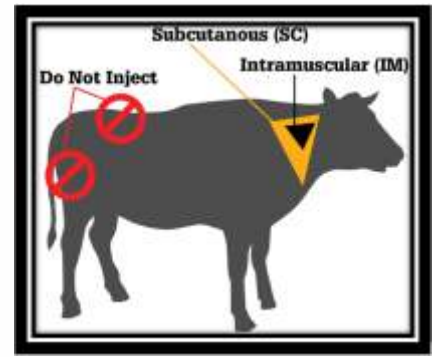


Figure 1. Use neck for intramuscular and subcutaneous injections. Do not inject in rump or leg.

- Vaccines should be stored and handled correctly to ensure their effectiveness.
- Full immunity can take up to four weeks after the first doses of the vaccine.
- Observe all safety precautions for workers handling vaccines and related equipment.
- Safely dispose of used equipment to avoid environmental contamination.

Vaccination Programs for Dairy Herds:				
Sl. No	Disease	Age at first dose	Booster dose	Subsequent dose
1.	<b>Foot and Mouth Disease (FMD)</b>	4 months and above	After 1 month of the first dose	Six monthly
2.	<b>Black Quarter (BQ)</b>	6 months and above	-	Annually in endemic areas.
3.	<b>Haemorrhagic Septicaemia (HS)</b>	6 months and above	-	Annually in endemic areas.
4.	<b>Theileriosis</b>	3 months and above	-	Once in a lifetime. Only required for crossbred and exotic cattle.
5.	<b>Brucellosis</b>	4-8 months (Only female calves)	-	Once in a lifetime
6.	<b>Anthrax</b>	4 months and above	-	Annually in endemic areas.
7.	<b>IBR</b>	3 months and above	1 month after first dose	Six monthly (vaccine presently not produced in India)
8.	<b>Rabies (Post bite therapy only)</b>	Immediately after suspected bite.	4th day	7,14,28 and 90 (optional) days after first dose.



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# Mastitis and Vaccines: Shaping a New Era of Dairy Health and Productivity



**Manisha<sup>1</sup>, Pritam Pal<sup>2</sup> and Anish Koul<sup>3</sup>**

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Mastitis is a common inflammatory condition that affects the mammary glands of animals, particularly dairy cows, goats, and other lactating animals. The annual economic losses due to mastitis in India and worldwide have been estimated at \$1.1 billion and \$35 billion respectively.

A list of bacteria isolated from clinical cases of mastitis is shown in

Figure 1. Most cases are caused by coliforms, including *Escherichia coli* (26%), *Klebsiella* (23%), and *Enterobacter* (3%), which collectively account for the highest percentage. Following closely are the environmental streptococci (13%), coagulase-negative staphylococci (3%), and *Staphylococcus aureus* (7%), which are less frequently isolated.

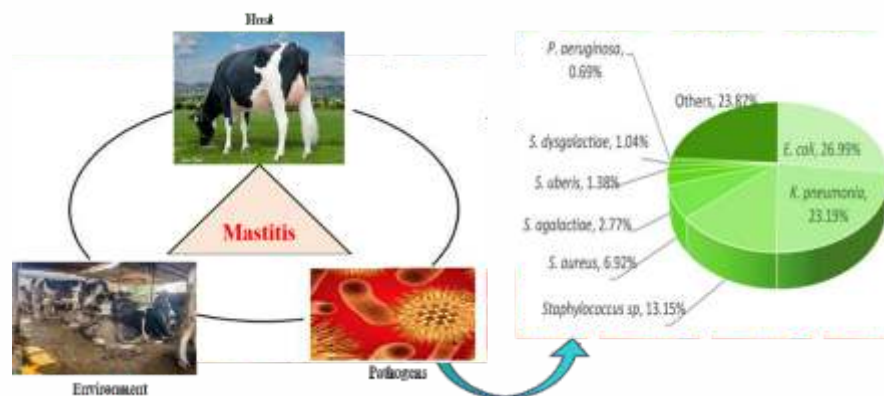


Figure 1. Distribution of bacteria from clinical cases of mastitis (Xu et al., 2022\*).

Signs and symptoms: -

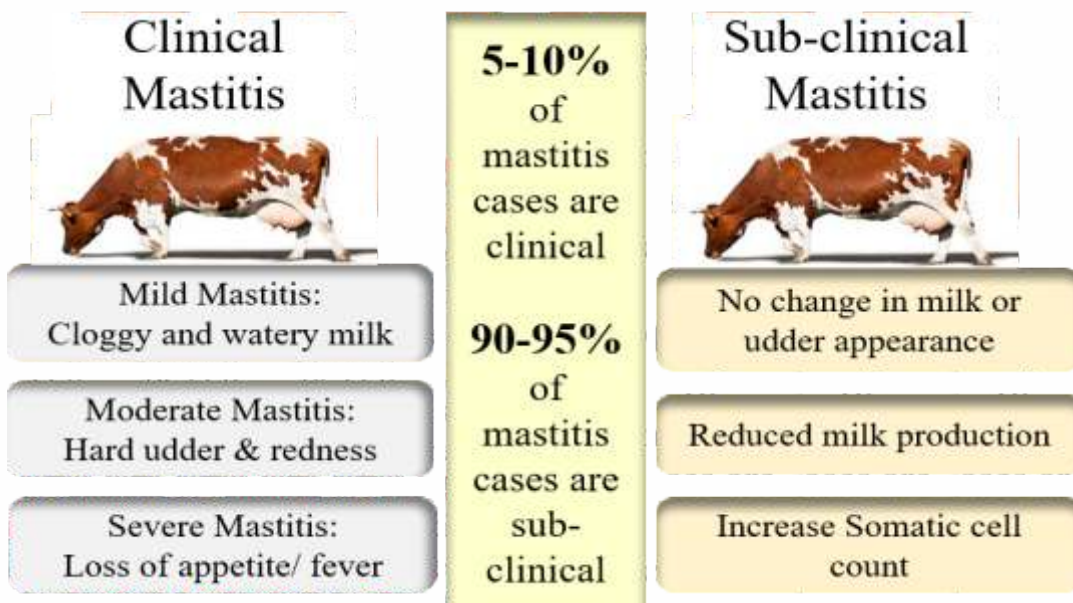


Figure 2. Sign and symptoms of different type of mastitis.

## Diagnosis of Mastitis: -

### • California Mastitis Test (CMT):

CMT is a simple and widely used method for detecting subclinical mastitis in dairy cows. The CMT is performed by mixing anionic surfactant solution with a small amount of milk from each quarter of the udder. The surfactant causes somatic cells to clump together if they are present in high numbers due to an infection (positive).

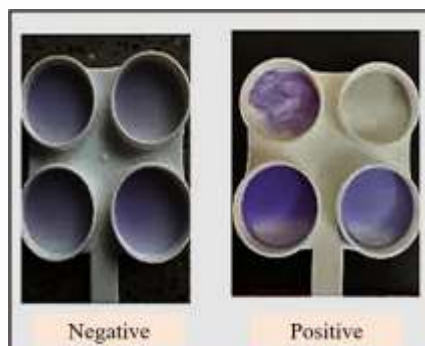


Figure 3: Milk sample with California Mastitis Test negative and various grades of CMT.

### • Somatic Cell Count (SCC):

It involves counting the number of somatic cells (white blood cells and epithelial cells) enabling early treatment. The SCC is quantified as the number of cells per ml of milk.

SCC (cells/ml)	Status of cow
<100,000	Normal healthy cows
200,000-300,000	Cow susceptible to mastitis
>300,000	Cow affected with mastitis

Table 1. Classifications of cow conditions according to the number of somatic cell count

## Treatment: -

Following are the multi-faceted approach for treating mastitis in dairy animals

- Antibiotics tailored to specific bacteria and susceptibilities.
- Direct delivery of antibiotics into affected udder quarter.

- Use of anti-inflammatory medications to alleviate inflammation.
- Application of pain relief, including non-steroidal anti-inflammatory drugs (NSAIDs).
- Teat sealants to prevent new infections by sealing the teat canal.
- Application of hot compresses to enhance blood circulation and minimize pain.
- Facilitation of milk flow through the use of hot compresses

## Prevention: -

Here are the points for minimizing the risk of mastitis:

- Maintain high standards of hygiene and cleanliness
- Keep bedding, stalls, and milking equipment clean and dry
- Implement proper milking practices
- Thoroughly remove milk during milking
- Apply teat dipping or spraying after milking
- Use approved disinfectants to reduce bacterial entry
- Administer intramuscular antibiotics during the dry period

(dry cow therapy)

- Vaccinate cows to prevent infection

## Vaccination: as a tool to control mastitis in Dairy cow

The purpose of the mastitis vaccine is to enhance the cow's immune system and protect it against future infections or diseases. By vaccinating, we can prevent or control the growth of bacteria after it invades a mammary quarter. This process can increase the production of antibodies in the bloodstream, specifically targeting mastitis-causing pathogens.

For effective results, all cows should receive vaccination using available coliform vaccines. These vaccines have demonstrated their ability to significantly decrease cases of clinical coliform mastitis. They have also proven to be economically viable when the incidence of clinical coliform mastitis surpasses 1% of the milking cow population. While there is one commercially accessible *S. aureus* vaccine, it may enhance a cow's natural recovery from *Staph. mastitis* and reduce SCC, but it's generally not recommended for mature cows. A list of mastitis vaccines that are commercially accessible can be found in Table 1.

Type of Vaccine	Trade name	Manufacturer	Administration
Coliforms	ENVIRACOR™ J-5	Zoetis	3 shots: At 7 and 8 months of gestation and within 2 weeks of calving; 5cc SC or IM/shot
	J-VAC®	Merial	2 shots: At dry-off and a boost 1 to 3 weeks prepartum; 2cc SC or IM/shot
	ENDOVAC-Dairy®	Immvac Inc.	2 shots: During dry period and boost 2 or 3 weeks later; 2cc (IM)/shot
<i>S. aureus</i>	Lysigin®	Boehringer Ingelheim Vetmedica, Inc.	3 shots: 5cc IM; boost 14 days later, and at 5-6 months
Mycoplasma	Mycomune®	AgriLabs	3 shots: First 2 are 2 weeks apart followed by a last shot 2 to 3 weeks prepartum; 2cc SC/shot

## Reference-

Xu, T., Cao, W., Huang, Y., Zhao, J., Wu, X., & Yang, Z. (2022). The Prevalence of *Escherichia coli* Derived from Bovine Clinical Mastitis and Distribution of Resistance to Antimicrobials in Part of Jiangsu Province, China. *Agriculture*, 13(1), 90.

Nickerson, S. C. (2019). Vaccination as a Tool to Control Mastitis in Dairy Cows.



# पशु विकृति विज्ञान विभाग पशुचिकित्सा व पशुपालन महाविद्यालय अंजोरा, दुर्ग (छ.ग.) बकरी रोग एंटरोटॉक्सिमिया (ज्यादा खाने की बीमारी)



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- यह रोग सभी उम्र की बकरियों, भेड़ को हो सकता है।

## रोग के कारक –

1. ये एंटरिक आंत्रशोध बीमारी बैक्टीरिया क्लोस्ट्रीडियम परफ्रिजेंस टाइप डी (tapc D) द्वारा उत्पादित विशाक्त पदार्थों के कारण होती है अधिकांश बकरियों और भेड़ों की आंत में क्लोस्ट्रीडियम परफ्रिजेंस कम मात्रा में मौजूद होते हैं।
2. बड़ी मात्रा और उच्च गुणवत्ता वाले आहार के कारण होने वाली परिस्थितियों में जीवाणु तेजी से बढ़ते हैं और एक शक्तिशाली विश उत्पन्न करते हैं, ये विशाक्त पदार्थ आंत से अवशोषित हो जाते हैं और कुछ घंटों के भीतर बकरियों और भेड़ों की मृत्यु हो जाती है।
3. आहार में अचानक परिवर्तन, बहुत अधिक कार्बोहाइड्रेट देना, स्टार्च और शर्करा से युक्त आहार खिलाना, अनियमित आहार, भोजन की मात्रा बहुत तेजी से बढ़ाना आदि एवं ।
4. पशुओं में (बकरियों) में परजीवीओं (Worms) की उपस्थिति, आंतों में बड़ी मात्रा में अपचित या आंशिक रूप से पचा हुआ भोजन आंतों में विशाक्त पदार्थों के निर्माण की ओर ले जाता है।







5. प्राकृतिक प्रतिरक्षा (Immunity) का अभाव

#### रोग के लक्षण –

1. तेज गर्मी के बाद मानसून की शुरुवात के साथ घास बहुतायत में दिखाई देती है बकरियां और भेड़ें इस नई घास को खूब खाती है और इससे जीवाणुओं की संख्या में वृद्धि होने की वजह से आंतों में जहर फैल जाता है।
2. छोटे मेमनो, बकरीयों को अधिक दूध पिलाना, उच्च कार्ब खाद्य पदार्थ मक्का गेहूँ, ज्वार इत्यादि, अगर अधिक मात्रा में सेवन किया जाए।
3. धूसर, मेमने सुस्त दिखते हैं, दूध नहीं पीते, सुस्त एक जगह बैठे रहते हैं।
4. पतला हरा रंग का दस्त रहता है मुँह से झाग आना, प्रभावित मेमने हवा में उछलते हैं और जमीन पर गिर जाते हैं, चक्कर आता है।
5. बड़ी बकरीयों और भेड़ों में मुँह से झाग निकलना, लाली आना, ठोकर लगना, दाँत निकलना (खाना), संतुलन खोना, चक्कर आना, सांस लेने में कठिनाई और अंत में पेट फुलना और दस्त लगना आदि लक्षण दिखाई देते हैं।

6. मेमनों और बकरीयों में आंतों की बीमारी का खतरा अधिक होता है, इस बीमारी के लक्षण दिखने से पहले ही प्रभावित बकरीयां और भेड़ें मर जाती हैं।

7. एंटोटॉक्सिन (Enterotoxin) से होने वाली मौतें आमतौर पर अचानक होती हैं, मेमने प्रभावित होने के 12 घंटे के भीतर मर जाते हैं मेमने एक स्थान पर आलस्य से बैठते हैं मेमनों में अकड़न, मरोड़ की हरकत, मस्तिष्क संबंधी लक्षण, दस्त, लंगड़ापन, दूध पीना बंद कर देते हैं।

8. इस बीमारी में आमतौर पर मृत्यु दर 10 से 90 प्रतिशत होती है।

#### रोग का निदान –

यदि मृत्यु के तुरंत बाद पोस्टमार्टम-Pm किया जाता है, तो कुछ परिवर्तनों पर ध्यान दिया जा सकता है विशेष रूप से अचानक पशु मृत्यु के मामलों में, आमतौर पर फुफ्फुसीय भीड़ और पेरिकाडियल थैली (Pericardial Sac) में जिलेटिनस सामग्री (Fibrin) के थक्के के साथ द्रव और तरल पदार्थ में वृद्धि होती है, छोटे रक्तस्राव और रक्त के छींटे स्पष्ट झिल्ली की नीचे देखे जा सकते हैं, जो हृदय की बाहरी और आंतरिक

मांसपेशियों की दीवारों को रेखाबद्ध करते हैं। गुर्दे के ऊतक द्रव से भर जाते हैं, तेजी से बिगड़ते हैं।

#### उपचार और बचाव

1. चूंकि यह एक अल्पकालिक बीमारी है, इसलिए इसका कोई प्रभावी उपचार नहीं है एंटीबायोटिक्स को पशु चिकित्सक की सलाह के अनुसार दिया जाना-चाहिए, इस प्रकार पेट में विशाक्त पदार्थों का अवशोषण कम हो जाता है और जीवाणु का विकास रुक जाता है।
2. मेमनों को नई, हरी भरी घास को अधिक मात्रा में नहीं खिलाना चाहिए, और आवश्यकता से अधिक दूध नहीं पिलाना चाहिए।
3. उच्च कार्ब खाद्य पदार्थ (ज्वार, मक्का आदि) अधिक मात्रा में नहीं खिलाना चाहिए।
4. पशु चिकित्सकों द्वारा गर्भवती बकरीयों और भेड़ों को एंटोटॉक्सिमिया के खिलाफ टीका लगाया जाना चाहिये।
5. तीन महीने के ऊपर के मेमनो और बकरीयों को टीका लगाया जाना चाहिए।





# पशुओं पर कीटनाशकों के प्रभाव को समझना : संकेत, लक्षण, उपचार और रोकथाम

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मानवों, कीटों और कीटनाशकों के बीच जो जटिल नृत्य होता है, उसमें एक अक्सर अनदेखा साथी होता है हमारे जानवर। कीटनाशक, जिनका उद्देश्य है हमारे आस-पास कीटों को दूर रखना अनजाने में हमारे प्रिय साथियों के लिए एक खतरा बन सकते हैं। चलिए पशुओं में कीटनाशक असार को समझने की यात्रा पर निकलें, उसके संकेतों की पहचान करने, उपचार की तलाश करने और रोकथाम को ग्रहण करने।

## छिपा हुआ खतरा: कीटनाशक अपशिष्ट को समझना

कीटनाशक हमारे पेस्टों के खिलाफ लड़ाई में अपदार्थ नामक हमारे पर्यावरण पर एक अदृश्य निशान छोड़ते हैं। कीटनाशक अपशिष्ट, इन रासायनिक योद्धाओं की एक बची हुई याददाश्त जानवरों के जीवन में पहुँच सकती है, प्राकृतिक संतुलन को विघटित करके।

## बुराई की पहचान : संकेतों और लक्षणों की उजागरण

पशुओं की भाषा को सीखना, जब बात कीटनाशक असार की हो, यह जीवन बचाने वाला हो सकता है। इन संकेतों का ध्यान रखें।

- 1. पाचन तंत्र की उत्तेजना :** पतली उल्टी और दस्त की दिशा में कीटनाशक संपर्क की ओर इशारा कर सकते हैं जो पेट दर्द की ओर संकेत कर सकता है।
- 2. तंत्रिका प्रणाली के चेतावनी:** आँख मारने, कंपन, अपचक या यह संकेत हो सकता है एक तंत्रिका प्रणाली पर हमला हुआ है।
- 3. भवसन में परेशानी :** श्वसन परेशानी, खांसी और तेजी से श्वसन की दिशा में संकेत हो सकता है, जो पेट में दर्द उत्पन्न कर सकता है।
- 4. त्वचा और आँखों की दिक्कत :** त्वचा में खुजली, लालपन या पानी आने की संकेतित हो सकती है।

- 5. बदला व्यवहार :** असामान्य व्यवहार के लिए ध्यान दें, जैसे एक बेचैनी, आकमण की दिशा में या अत्याधिक घबराहट।
- 6. उर्जा की कमी:** यदि आपका जानवर अचानक कमजोर, सुस्त या खड़े होने में परेशान हो रहा है, तो यह एक संकेत है।

## तत्काल क्रिया : आवश्यक कदम

- 1. संपर्क को हटाएं :** यदि आपको लगता है एक कीटनाशक संपर्क हो गया है, तो खतरे क्षेत्र से अपने जानवर को दूर ले जाएं ताकि आगे के संपर्क को समाप्त किया जा सके।
- 2. त्वरित सफाई :** यदि आपके जानवर के बाल या त्वचा पर कीटनाशक अपशिष्ट है, तो हल्के साबुन और पानी से सावधानी पूर्वक साफ करें। लेकिन रासायन से बचें।
- 3. वेटरिनरीयन की वि शोशता :** तुरंत एक पशु चिकित्सक से संपर्क करें। समय पर कारवाई महत्वपूर्ण है कीटनाशक के बारे में कोई भी जानकारी बताएं ताकि एक अधिक सटीक मूल्यांकन किया जा सके।
- 4. उल्टी कराने की कोशिश न करें :** अन्य अवपाक्य पदार्थों की तरह, कीटनाशक संपर्क के बाद अपने पशु को उल्टी कराने की कोशिश न करें। हमेशा पहले वेटरिनर से सलाह लें।

## पशुओं पर कीटनाशक प्रभाव के खिलाड़ी पशु चिकित्सक होते हैं उनकी भूमिका में शामिल है:

- **सहायक देखभाल प्रदान करना :** लक्षणों को कम करने के लिए तरल ऑक्सीजन थेरेपी और दवाओं को प्रबंधन करना।
- **विश का निश्कासन :** कुछ मामलों में सक्रिय चारकोल का उपयोग कीटनाशक को शोशित करने और आगे की शोशण को रोकने में मदद

करने के लिए किया जा सकता है।

- **अवशिष्ट प्रतिमात्रिता :** कुछ कीटनाशकों के पास अवशिष्ट विशाप्रतिक बनाने की क्षमता होती है, जो उनके प्रभावों को संक्षेपण करने में मदद कर सकते हैं।
- **सतर्क दृष्टि :** गंभीरता के आधार पर, पशुओं को कुछ घंटों या दिनों तक निगरानी की आवश्यकता हो सकती है।

## रोकथाम के रास्ते : -

पशुओं में कीटनाशक प्रभाव की रोकथाम सबसे बड़ा लक्ष्य है। ये कदम फर्क डाल सकते हैं :

- **उपयोग :** कीटनाशक उपयोग के निर्देशों और मार्गदर्शिकाओं का पालन करें। इन रासायनिकों का अधिक उपयोग या गलत मिश्रण से बचें।
- **विकल्पों को ग्रहण करें :** एकीकृत कीट प्रबंधन (आईपीएम) तकनीकें कीटनाशकों पर आश्रितता कम कर सकती हैं और कीट जनसंख्या को नियंत्रित रख सकती हैं।
- **संग्रहण सतर्कता :** कीटनाशकों को अपने पशु के पहुँच से बाहर सुरक्षित रूप से रखें।
- **बाहरी व्यवसायों पर सतर्कता :** पश्चिमी नियंत्रण क्षेत्रों से अपने पशुओं को दूर रखें, जब तक वहां सुरक्षित घूमने का संकेत न हो

हम कीट प्रबंधन की जटिलताओं का संचालन करते हैं तो आईए हम याद रखें हमारे पशु भी इस मुद्दे में फंसे होते हैं। कीटनाशक असार की संकेतों की पहचान करके त्वरित क्रियान्वयन करके, पशु चिकित्सकों को शामिल करके और रोकथाम के उपायों को ग्रहण करके हम यह सुनिश्चित कर सकते हैं हमारे पालतू पशु उन कीटनाशकों द्वारा बने खतरे से सुरक्षित और स्वस्थ जीवन बिता सकते हैं



# Current Concerns of Antibiotic Residues in Milk

## Introduction

Consumers want to be confident that their food supply is free of contamination by herbicides, pesticides, drugs, or antibiotics. The presence of any drugs or antibiotic residues in any livestock product is illegal. Milk supplies containing detectable concentrations of any drugs are not acceptable. Unless drug residues are avoided to protect milk's reputation as a healthy, safe food, the market becomes jeopardized. Approximately 5-10 percent of the consumer population is hypersensitive to penicillin or other antibiotics and suffers allergic reactions (skin rashes, hives, asthma, anaphylactic shock) at concentrations as low as 1 ppb penicillin. There is concern that small amounts of certain antimicrobial agents may significantly shift the resistance patterns in the microbial population in the human intestinal tract.

Most of the antibiotics are known to interfere with the manufacture of several dairy products. Antimicrobial concentrations of 1 ppb delay starter activity for cheese, butter, and yogurt and of other fermented dairy products. Antibiotics also

decrease the acid and flavor production associated with butter manufacture, and they reduce the curdling of milk and cause improper ripening of cheeses. Antibiotic residues in milk and milk products may lead to: severe allergic reactions in sensitive consumers, culture failure and subsequent loss of product, a change in consumer perception of milk being a pure, unadulterated, natural product. All of these concerns may result in major economic losses to the dairy industry.

## Need of hour to overcome the effects of antibiotic residue in dairy products:

### 1. To protect consumers' health

Antibiotics entering the food chain through dairy products may lead to allergic reactions in humans and antibiotic resistant strains of bacteria.

### 2. To safeguard

It is essential that the dairy industry as a whole produces high quality milk which is free from antibiotic residues.

### 3. To avoid heavy penalties for producers

In future, losses incurred by processors having to

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discard milk or may be passed back to the producer, while meeting the legal requirements of drug residue as prescribed by food standard authorities producer may penalizes.

#### **4. To prevent losses to processors**

Production of cultured dairy products can be adversely affected by traces of antibiotics, resulting in sub-standard product. Specifications for valuable home and export markets require dairy products to be free from antibiotics.

#### **5. To comply with current legislation**

Contamination of milk is an offence liable to prosecution, to ensure that food producers and handlers are not convicted of an offence which they took all reasonable care to avoid. It is therefore important that all milk producers are able to show that they have taken all reasonable precautions to ensure the safety of milk being sold by them.

#### **Source of drug residues in Dairy Products**

To the dairy animals for disease therapy the drugs are administered via intramuscular or intravenous injections, oral administration, feed supplementation, or

reproductive infusions. While the treating of mammary gland infections through intra-mammary or intravenous infusions. A FDA surveys indicate that improper use of drugs in the control of mastitis is the major source of residues found in the milk supply. Many drugs are retained in the animal body for longer times than indicated by label discard times. Consequently, milk samples remain positive for residues. A good example is penicillin with a recommended milk discard time of 72 hours. However, penicillin residue has persisted in milk for as long as 18 days. Some of the cephalosporin treated cows were still positive at 48 hours after the recommended milk discard time.

Antimicrobial drugs administered for dry cow therapy do not appear to cause drug residues if milk is not shipped for the first four days after calving, if dry periods are recommendations are followed, dry cow therapy should not result in residues after calving. However, residues are possible and fresh cows should be tested, especially cows with short dry periods. Intrauterine infusions of drugs have caused detectable residues in milk. Few studies have reported residues caused by intrauterine treatment with tetracycline, dihydrostreptomycin, benzyl penicillin, oxytetracycline,

sulfamethazine, penicillin and streptomycin. Even combiotic (procaine penicillin and dihydrostreptomycin) has been detected in milk for 24-48 hours after intrauterine infusion.

#### **Possible reasons for drug residues:**

- Extended usage or excessive dosage of approved drugs.
- Poor records of treatment.
- Milker or producer mistakes accidental transfer into bulk tank.
- Failure to observe recommended label withdrawal time.
- Lack of advice on withdrawal period.
- Prolonged drug clearance.
- Treated-animal identification problems.
- Multiple dosing.
- Products not used according to label directions.
- Withholding milk from treated quarters only.
- Contaminated milking equipment.
- Early calving or short dry periods.
- Purchase of treated cows.
- Use of dry cow therapy to lactating cows.

#### **Recommended use of on-farm drug residue testing**

Certain situations have greater

risks for residues. Withholding times on the label may have been established with healthy or high producing cows where the drug retention is less than occurs in sick or diseased cows. Consider using a drug residue screening test as follows:

1. Fresh cows, especially those dry treated and with dry periods of six weeks or less, cows that freshen early, cows which had been treated shortly before calving, or cows whose treatment status was unknown. Discard milk for the first three days after calving. This includes first lactation cows who had been treated with either a lactating or dry cow mastitis treatment prior to calving. Also, test cows that received intrauterine drug infusions.
2. At the end of the recommended milk discard time and after the milk becomes visually normal, test milk from any lactating cow treated for mastitis.
3. At the end of the veterinarian's recommended withholding time, which should be stated on the drug label, test any cows treated "extra-label." Also, test problem cows that have been treated longer than recommended, or with higher doses, or with

combinations of drugs or special mixes.

4. All new additions to the herd including purchased cows or first lactation animals should be tested before their milk is added to the bulk tank.
5. Any cull cows that have been treated or baby calves that have been fed milk from treated cows should not be sold until the end of the withdrawal time for meat animals. Calves born to cows treated during the dry period may acquire tissue drug residues prior to birth or from drinking colostrums.

### Conclusion

Therefore the utmost care should be taken during the milking routine to minimize the risk of antibiotics entering the food chain. Milk of the highest quality is necessary to meet present and future market requirements and consumers now demand milk products of the highest quality and safety. Where drugs are used on the dairy herd there is always a risk of antibiotic contamination of milk. Therefore the utmost care should be taken during the milking routine to minimize the risk of antibiotics entering the food chain. All these must be checked as it causes health concerns in humans.

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## Successful Conclusion of Inaugural Session I for 64<sup>th</sup> National Symposium 2023

### Livestock Sector: Looking Beyond the Present

*New Delhi, 18 August, 2023*– The inaugural session I of the CLFMA of India symposium concluded on a high note on Friday, August 18, 2023. The event, held at Hotel Le Meridien in New Delhi, witnessed the participation of esteemed dignitaries and industry leaders, who shared valuable insights on the future of the animal husbandry, dairying and fisheries, sectors in the country.

The session began with an auspicious lighting of the lamp by esteemed guests, including Guest of Honour Shri. Parshottam Rupala, Hon'ble Minister of Fisheries, Animal Husbandry & Dairying, Government of India, and CLFMA Chairman Mr. Suresh Deora along with Mr. Divya Kumar Gulati,

Convenor, CLFMA, Hon. Secretary Mr. Abhay Shah. The chairman felicitated Shri. Parshottam Rupala with a bouquet, shawl, and memento to mark the occasion.

Mr. Divya Kumar Gulati, the convenor of the event, delivered a warm and welcoming address, setting the tone for an engaging and informative session. This was followed by a thought-provoking address by Mr. Suresh Deora, Chairman of the CLFMA of India, who highlighted the industry's potential and challenges.

The highlight of the event was the prestigious CLFMA Lifetime Achievement Award. It recognized two exemplary individuals for their significant contributions to the

livestock industry. The award was announced and presented recognizing their achievements and dedication to the sector. Shri. Nadir B. Godrej, Past Chairman, CLFMA OF INDIA and Chairman & MD of Godrej Industries Ltd. and Shri. Tarun Shridhar, IAS (Retd.) were honoured with the CLFMA Lifetime Achievement Award. The awards were presented by Shri. Parshottam Rupala.

Shri. Nadir B. Godrej thanked CLFMA for the award with full heart and spoke about his journey in the animal feeding business. The glimpses he shared were not only fascinating but inspiring too. Shri. Tarun Shridhar, IAS (Retd.) humbly thanked for the honour and nostalgically remembered how the



sector has given him the vast knowledge, experience, insights and friends he adores today.

The much-awaited Livestock Survey Report (Volume - II) was also launched at the event. Hon'ble minister

Shri. Parshottam Rupala, Chairman Mr. Suresh Deora, Mr. Nadir B. Godrej, Shri. Tarun Shridhar, Mr. Divya Kumar Gulati and honorary Secretary Mr. Abhay Shah, were present on the dais to unveil the report. The report provides valuable insights into the current state of the livestock sector and outlining future opportunities and challenges. The report is expected to serve as a guiding resource for industry stakeholders, policymakers, and researchers.

Hon'ble Minister of Fisheries, Animal Husbandry & Dairying,

Government of India, Shri. Parshottam Rupala, delivered an address at the event. As they say storytelling is the best way to communicate life experiences, our guest of honour shared his life insights with stories of inspiration and success.

He shared valuable insights into government policies and initiatives aimed at promoting the growth and development of the livestock sector. He also highlighted the government's commitment to the development and growth of the fisheries, animal husbandry, and dairying sectors in the country.

Hon'ble minister emphasised that the "Livestock holds an ancient tradition that connects us to our roots. Before we became an agricultural nation, we were herders, showing the deep-rooted

connection we have with animals. Animals once relied solely on nature for their sustenance, grazing from morning till afternoon, trusting in their fate. But with amendments in animal feeding practices, we have become the top milk producer in the world contributing 24% of global milk production, emphasizing the importance of conscientious farming."

Although he raised concerns that "Livestock farmers are currently facing challenges with fodder availability.. This affects health of animals which directly impacts the income of cattle herders. So the industry needs to address this issue on a large scale along with the need for proper care and attention of livestock." He added "The government's efforts to merge technology with livestock are



commendable. The introduction of vaccination and mobile veterinary units revolutionized the care of livestock."

Shri Rupala is very hopeful for the fisheries sector as well. In his speech he brought everyone's attention to inspiring numbers. "India has tremendous potential to lead the world in the fisheries sector. From a mere Rs 3680 crore expenditure from independence till 2014, to a 20,000 crore Pradhan Mantri Matsya Sampada Yojana today, the transformation in fisheries sector is astounding. With the volume of aquaculture soaring

from 30,000 crore in 2014 to 63,000 crore today, the potential to lead the world in this sector is within our grasp. Together, let us unlock the immense potential within our communities, industries, and government to become global leaders in fisheries."

The session concluded with a vote of thanks delivered by Mr. Abhay Shah, honorary Secretary of the CLFMA of India, expressing gratitude to all the distinguished guests, esteemed speakers, delegates and participants for their valuable contributions and making the inaugural session a resounding

success. This was followed by a networking lunch.

The CLFMA of India conference had set a strong foundation for the subsequent sessions, and discussions that would take place over the following days. With the enthusiastic participation of industry experts, policymakers, and stakeholders, the symposium aimed to explore strategies and solutions for the sustainable growth of the fisheries, animal husbandry, and dairying sectors, contributing to the overall development of the country.



### **About CLFMA of India :**

CLFMA, also known as The Compound Feed Manufacturers Association, was established in June 1967. Over the years, it has gained recognition and support from various stakeholders including the Central and State Governments, livestock farmers, and related organizations. With a membership of 250+, CLFMA represents all sectors of the livestock industry. This includes entities involved in feed manufacturing, poultry, dairy, aquaculture business, animal nutrition and health, veterinary services, machinery and equipment, as well as processing, distribution, and retailing of meat and ancillary services such as banking.

In addition to its domestic recognition, CLFMA is also acknowledged by international sectors. It is highly regarded by government departments, agricultural universities, veterinary colleges, and national research institutes within India. Furthermore, CLFMA is respected by related industries outside the country.

***For more information, please visit [[www.clfma.org](http://www.clfma.org)](<http://www.clfma.org>).***





## Successful Conclusion of Inaugural Session II for 64<sup>th</sup> National Symposium 2023

### Livestock Sector: Looking Beyond the Present

New Delhi, 18 August, 2023 – The CLFMA of India (Compound Livestock Feed Manufacturers Association) concluded its highly anticipated Inaugural Session - II event, marking a significant milestone in the organization's journey on Day 1 of 64th National Symposium 2023. The event was held at Hotel Le Meridien in New Delhi. The event witnessed the presence of esteemed dignitaries from the government, industry leaders, and key stakeholders. The event centred on the theme "Livestock Sector: Looking Beyond the Present" and aimed to bring together industry leaders, policymakers, and experts to discuss the future of the livestock sector in

India.

The event commenced with the lighting of the lamp ceremony, where all the dignitaries were invited to the dais. Dr. O. P. Chaudhary, Joint Secretary (NLM/PC), Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India graced the occasion as the Guest of Honour. Shri. Nadir B Godrej, Past Chairman of CLFMA of India and Chairman & MD of Godrej Industries Ltd; Shri Tarun Shridhar, IAS (Retd.); CLFMA Chairman Mr. Suresh Deora; Deputy Chairman Mr. Sumit Sureka; Convenor Mr. Divya Kumar Gulati and Hon. Secretary Mr. Abhay Shah were present on the dais with the

guest of honour.

Dr. O. P. Chaudhary was felicitated by Mr. Suresh Deora with a bouquet, shawl, and memento to mark the occasion. Mr. Sumit Sureka, Deputy Chairman, CLFMA felicitated Shri. Nadir B Godrej and Shri Tarun Sridhar was felicitated by Mr. Divya Kumar Gulati.

Mr. Divya Kumar Gulati, Deputy Chairman of CLFMA of India, delivered the welcome address, highlighting the importance of the event and expressing gratitude to all participants. Following the welcome address, Mr. Suresh Deora, Chairman of CLFMA of India, addressed the audience.

A key highlight of the event was the



CLFMA Audio Visual Presentation which showcased the achievements and initiatives undertaken by CLFMA of India in the past year. The presentation highlighted the organization's efforts in promoting animal health, welfare, and sustainable practices in the livestock sector.

Mr. Nadir B. Godrej, Past Chairman of CLFMA of India; Chairman & MD of Godrej Industries Ltd., and CLFMA Lifetime achievement awardee delivered the keynote address. For a change this time the keynote address was in the form of a long poem. The poem showcased the glimpses of his journey, discussing serious issues of agriculture, livestock, dairy, poultry, animal feed and fodder, alternate feed, rising prices, challenges faced, factors like environment, economics, carbon footprints, efficiency improvement and our future.

His poetic keynote address gave us a lesson that in the tapestry of agriculture and livestock, we must

weave the threads of innovation and sustainability, for only then can we create a future where abundance coexists with harmony, and where the well-being of our planet is nurtured alongside the progress of our industries. His speech focused on the current trends and future prospects of the livestock sector, emphasizing the importance of technological advancements and the role of industry stakeholders in driving sustainable growth.

In the 64th National Symposium, CLFMA Lifetime achievement awardee Shri. Tarun Shridhar, IAS (Retd.) shed light on the theme 'Livestock Sector: Looking Beyond the Present' and shared valuable insights. The livestock sector encompasses various aspects such as animal husbandry, fisheries, and aquaculture. This sector has witnessed impressive growth since its establishment.

"One notable development in this sector occurred in February-March

2019 when the decision was made to separate the Department of Fisheries from the Department of Animal Husbandry. This move recognized the distinct nature and importance of each sub-sector within livestock."

He even emphasised that "It is remarkable that animal husbandry contributes over 30% to the agricultural GDP, despite receiving less than 5% of total investment in comparison to agriculture. To further emphasize the significance of this sector, the Ministries of Fisheries were separated from Animal Husbandry and Dairy, highlighting the need for dedicated focus and attention. This separation from the agriculture ministry was a significant step towards recognizing the unique challenges and opportunities present in the livestock sector. It also paved the way for targeted investment in terms of both financial resources and appropriate policies."

In his address he remembers, "In fact, the first agenda item discussed







in the first cabinet meeting of the new government was a 15,000 crore project aimed at eradicating disease control and improving the food processing system within the livestock sector. This demonstrates the government's commitment to prioritize and support the growth and development of this sector."

"Moreover, the livestock sector has proven to be beneficial to our economy, as evident in the export of fish and buffalo meat. These products, derived from livestock, contribute to our nation's economic growth and provide opportunities for international trade."

He even foresees "The Livestock sector plays a crucial role in our economy, and it is time we look beyond the present and invest in its growth. With appropriate policies and infrastructure development, this sector has the potential to create entrepreneurship opportunities and contribute significantly to our GDP. Let us encourage our children to consider careers in agriculture, fish farming, and animal husbandry, and pave the way for a sustainable and prosperous future."

In conclusion, Shri. Tarun Shridhar's insights highlight the immense potential of the livestock sector and the need to look beyond the present to harness its full capabilities. "CLFMA has the potential to become

a powerful advocate for the industry, taking a strong stand and voicing the concerns and aspirations of its members."

The address was followed by the presentation of the prestigious CLFMA Award. The CLFMA (Compound Livestock Feed Manufacturers Association) Award is a prestigious recognition given to livestock feed manufacturers who have made significant contributions to the industry. This annual award aims to acknowledge the hard work, innovation, and excellence demonstrated by livestock feed manufacturers in India.

CLFMA award serves as a catalyst for the growth and development of the livestock feed industry. By acknowledging and celebrating excellence, it encourages manufacturers to continue striving

for higher standards and innovation in their products. Ultimately, this benefits not only the manufacturers but also farmers, consumers, and the entire livestock farming ecosystem.

CLFMA recognized the exemplary contributions of Dr. Anand Kumar Pathak, Senior Assistant Professor (Animal Nutrition) in SKUAST Jammu and Dr. Pankaj Kumar Singh, Professor and Head of Animal Nutrition Department of Bihar Animal Sciences University, Patna with the prestigious CLFMA Award. The awardees were felicitated by Dr. O. P. Chaudhary, Joint Secretary (NLM/PC).

The event also saw the launch of the official souvenir, marking a significant milestone in the symposium with key dignitaries Dr. O. P. Chaudhary, Mr. Nadir B. Godrej, Mr. Suresh Deora, Mr. Divya Kumar Gulati, Mr. Sumit Sureka, Mr. Naveen Pasuparthi, Mr. Sandeep Kumar Singh, Mr. Abhay Shah, present on stage. All office bearers were invited on stage to be an auspicious part of the prestigious moment.

Dr. O. P. Chaudhary addressed the audience, highlighting the initiatives undertaken by the Department of Animal Husbandry & Dairying to promote the growth of the animal feed industry. He highlighted the government's initiatives and policies to support the livestock sector, encouraging industry players to leverage these opportunities for the





sector's growth. He highlighted 3 major points in his speech.

1. "The government officials are now realizing that they are facilitators, and it is their responsibility to come upfront to guide and help people in the animal feed industry. This includes making policies that support the growth and development of the feed industry."
2. "Additionally, there is a need to address the issue of providing nutritious and balanced food to the poor section of the society. By innovating and balancing the feed and fodder, we can reduce the cost and make it accessible to the weaker sections. For those associated with CLFMA, it is important to explore new ways to earn and fulfil their needs. Exporting to other countries, particularly those that are economically weaker than us, can be a viable option. It is crucial to seek support from the government in this regard. It is also important to focus on increasing the purchasing power of the people and ensuring that the needs of those who do not have sufficient financial resources are also fulfilled. To achieve this, efforts should be made to include the unorganized sector in the organized sector."
3. "Currently, the capital subsidy in



Animal husbandry for structural development fund will see a significant growth with an increase from 3 to 5 percent, making it 15,000 crores to 25,000 crores.'

"Overall, there are several opportunities and challenges in the animal feed industry. By working together, government, industry, and stakeholders can create a favourable environment for growth and development." At the end of his speech, he congratulated all the CLFMA awardees as well.

As the event drew to a close, Mr. Abhay Shah, Honorary Secretary of CLFMA of India, delivered the vote of thanks, expressing gratitude to all the dignitaries, eminent speakers, participants, sponsors, and organizers who made the event a success. He emphasized the importance of collaboration and

knowledge sharing in driving the growth of the livestock sector. The evening was followed by an enjoyable networking dinner and live performances. This provided an opportunity for the participants to unwind, connect with industry peers, and build lasting relationships.

The CLFMA of India is proud to have organized such a successful event, bringing together industry leaders and stakeholders for insightful discussions and networking opportunities. The 64th National Symposium of CLFMA of India proved to be a significant platform for knowledge exchange, discussion, and collaboration in the livestock sector. The event successfully shed light on the challenges and opportunities beyond the present, encouraging stakeholders to work towards a sustainable and prosperous future for the industry.

### About CLFMA of India :

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# EW Nutrition Welcomes Jan Vanbrabant as New CEO

## **VISBEK (Germany), 1**

**September 2023** — EW

Nutrition, a leading global provider of functional animal nutrition solutions, welcomes Jan Vanbrabant as its new Chief Executive Officer.

Jan has a PhD degree in microbiology and is an experienced manager in animal health and nutrition, having held leadership roles at DSM, Erber Group, Biomin and Kemin.

"We are very pleased that we have found a strong

management lead in Jan, who embodies the philosophy of EW Nutrition", says Jan Wesjohann, Managing Director of parent company EW Group. "EW Nutrition is an innovation-driven company, with intensive investment in R&D. Together with Jan we are looking to enter the next growth phase of EW Nutrition."

"I am very excited to be joining the EW Nutrition team," said Jan Vanbrabant. "EW Nutrition's long-term focus has created an

extremely competitive portfolio. EW Nutrition is uniquely positioned to support its customers in mastering the challenges of the changing animal health and nutrition environment."

Former CEO Michael Gerrits is heading into retirement after six years leading EW Nutrition. "I want to thank Michael Gerrits for his essential stewardship in bringing the company to the next level," said Jan Wesjohann.

### **About EW Nutrition**

*EW Nutrition is a global animal nutrition company that offers integrators, feed companies, and veterinarians comprehensive solutions for animal gut health and performance, feed quality, digestibility, and more. It is focused on promoting sustainable growth through reduced FCR, natural support against challenges, reduced need for antibiotics, and planet-friendly protein production.*

Contact:

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# Merck Animal Health Presents New Data on First Vaccine to Reduce *C. Parvum* Infection at the European Buiatrics Congress and ECBHM Jubilee Symposium 2023



Merck Animal Health, known as MSD Animal Health outside of the United States and Canada, a division of Merck & Co., Inc., Rahway, N.J., USA, announced today nine new abstracts being presented at The European Buiatrics Congress and ECBHM Jubilee Symposium 2023 (EBC 2023), including two sets of pivotal field study data evaluating the efficacy of an experimental vaccine to provide protection against *Cryptosporidium parvum* (*C. parvum*) in newborn calves.

"*Cryptosporidium parvum* is a highly infectious zoonotic parasite that is associated with neonatal calf diarrhea, the leading cause of calf morbidity and mortality. There is a critical need to treat and prevent this harmful infection," said Geert Vertenten, Ph.D., DVM, global technical director of ruminant biologicals at Merck Animal Health. "The data we will present at the European Buiatrics Congress 2023 strongly support the advancement of a gp40-based vaccine to obstruct the development of *C. parvum* in newborn calves."

The first set of data being presented at EBC 2023 evaluated an experimental *Cryptosporidium* vaccine for protection against *C. parvum* infection in neonatal calves by passive immunization. In the study, healthy pregnant heifers were given the experimental *Cryptosporidium* vaccine and Bovilis® Rotavec® Corona during the third trimester of pregnancy. After the calves were born, researchers collected colostrum from the vaccinated heifers, then randomly assigned viable newborn calves to receive the colostrum within four hours of birth before being exposed to *C. parvum* oocysts up to four hours later. The results showed that newborn calves fed with colostrum from *Cryptosporidium*-vaccinated heifers had a significantly lower chance of having diarrhea, as measured by health and diarrhea scores.

Merck Animal Health will also share a second set of analyses that investigated the antibody response of the same *Cryptosporidium* vaccine in cattle in relation to *C. parvum* parasitic infection stages and an *in vitro* infection model. The results showed that high level anti-gp40 *in vitro* neutralizing antibodies were significantly increased in animals that were given the *Cryptosporidium*

vaccine compared to the non-vaccinated control group. These data further validate that gp40 is an important protein expressed on the exterior of different *C. parvum* infection stages.

"At Merck Animal Health, we are taking the lead in protecting cattle against the most common and harmful pathogens, as well as offering solutions that guide herd management decisions to help improve animal welfare and operational efficiency. That responsibility begins with equipping those in bovine herd health management with the tools they need to keep animals healthy and minimize the need for treatment," said Philippe Houffschmitt, DVM, MBA, associate vice president of the global ruminant business at Merck Animal Health. "We are excited to share our latest research in *C. parvum* prevention, which we hope adds to the growing body of scientific evidence that is enhancing the comfort and care of livestock and helping bovine production medicine specialists make better decisions about health interventions for animals."

Full data from both *C. parvum* studies will be published in the journal *Vaccine* or *Veterinary Vaccine* following the congress.

## About Merck Animal Health

At Merck, known as MSD outside of the United States and Canada, we are unified around our purpose: We use the power of leading-edge science to save and improve lives around the world. For more than a century, we've been at the forefront of research, bringing forward medicines, vaccines and innovative health solutions for the world's most challenging diseases. Merck Animal Health, a division of Merck & Co., Inc., Rahway, N.J., USA, is the global animal health business of Merck. Through its commitment to The Science of Healthier Animals®, Merck Animal Health offers veterinarians, farmers, pet owners and governments one of the widest ranges of veterinary pharmaceuticals, vaccines and health management solutions and services as well as an extensive suite of connected technology that includes identification, traceability and monitoring products. Merck Animal Health is dedicated to preserving and improving the health, well-being and performance of animals and the people who care for them. It invests extensively in dynamic and comprehensive R&D resources and a modern, global supply chain. Merck Animal Health is present in more than 50 countries, while its products are available in some 150 markets. For more information, visit [www.merck-animal-health.com](http://www.merck-animal-health.com) and connect with us on LinkedIn, Facebook, Twitter and Instagram.



# NOVUS to Share Top Dairy Herd Best Practices at World Dairy Expo

Experts from Novus International will share their insights into top-performing dairy herds at the World Dairy Expo, October 1-6, in Madison, Wisconsin.

NOVUS will host two Knowledge Nook sessions during the world's largest dairy show.

Mark Moran, executive regional ruminant sales manager for NOVUS, says these two talks are designed to help dairy farmers optimize performance and support profitability through intelligent nutrition, which is a combination of experience, insightful perspectives, and smarter solutions.

"NOVUS has been working directly with dairy farmers since 1996. We've developed deep historical knowledge of the challenges and opportunities that different farms can experience. We've also learned a lot about the small things farmers can do to address those issues and meet their goals," he says.

## Top Producing Dairy Herds, October 4

Karen Luchterhand, Ph.D., C.O.W.S.® Program service lead, grew up on a dairy farm and began working with neighboring dairies as a teenager. She understands how competitive dairy farms can be. What better way to get above the competition than to know what top-performing herds are doing?

"Dairy farmers are a competitive group. They want to be the best of the best. They want to know how their herds stack up to the competition," says Luchterhand. "My presentation gives them a glimpse into dairies in the Northeast and Midwest that are getting the most from their cows."

In her presentation, Luchterhand will show assessment data from NOVUS' C.O.W.S.® Program collected over the last five years. The program, which has been supporting farms in North America

since 2011, uses on-site assessments to help farmers unlock production bottlenecks and optimize the health and well-being of their cows. The qualitative and quantitative information collected from these dairy farms showcases key management changes that can make a big difference. Some options may be little to no cost to implement but some suggestions come with a considerable financial investment. Luchterhand says that shouldn't deter people from understanding their options.

"What the data tells us and the recommendations we make according to the data has to be individualized to specific farms," she says. "Because there are so many factors that go into dairy farming, there isn't one plan that will work for everyone. We have to consider the farm's challenges and opportunities and how much the dairy producer can or is willing to invest."

Luchterhand will present *What Are Our Top Producing Herds Doing?* at 2:30 p.m. on October 4 in the atrium of the Exhibition Hall.

## Reduce Risk and Manage Your Milk Components, October 5

NOVUS Ruminant Technical Manager Hannah Tucker, Ph.D., will present on the topic *Reduce Your Risk: Successfully Manage Your Milk Components when Changing Forage Sources*, which provides management tips that farmers and nutritionists should consider every year around harvest time.

"Butterfat is a valuable milk component. Farmers rely on the ration cows eat to make butterfat, but we can't maximize butterfat production if the forages aren't as they should be," Tucker says.

During her presentation, Tucker will recommend certain steps farms take when moving from last year's forage to

that of the new harvest. She warns that if the switch isn't done correctly, the impact can have a negative effect on everything from dry matter intake to component production to overall milk yield.

Tucker says nutritionists also have a valuable role to play in the silage shift. Their collaboration with dairy producers to maximize the production of both the milk and the forage is necessary to achieve farm goals.

Dr. Tucker's presentation is scheduled for 10:30 a.m. on October 5 in the atrium of the Exhibition Hall.

Attendees can visit the NOVUS booth, #4317-4319 at the Alliant Energy Center Exhibition Hall during the Expo, to speak with the experts and learn about the intelligent nutrition solutions that can help them get more from their cows.

For more information about NOVUS at the expo, visit [ni.novusint.com/world-dairy-expo-2023](http://ni.novusint.com/world-dairy-expo-2023)

**World Dairy Expo** serves as a forum for dairy producers, companies, organizations, and other dairy enthusiasts to come together to compete, and to exchange ideas, knowledge, technology, and commerce. For more information, visit [worlddairyexpo.com](http://worlddairyexpo.com).

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Novus International, Inc. is the intelligent nutrition company. We combine global scientific research with local insights to develop innovative, advanced technology to help protein producers around the world achieve better results. Novus is privately owned by Mitsui & Co., Ltd. and Nippon Soda Co., Ltd. Headquartered in Chesterfield, Missouri, U.S.A. [novusint.com](http://novusint.com).



# AB Agri Acquires National Milk Records plc (“NMR”)

AB Agri has completed the acquisition of NMR, the leading agri-tech supplier of management information and testing services to the UK dairy supply chain.

NMR provides management information and testing services to the UK dairy supply chain, developing technology used to inform farming efficiency and animal welfare, and quantify food provenance.

Milk samples are regularly collected from virtually every dairy farm in Great Britain, positioning NMR as a highly respected and present voice across the dairy sector.

NMR's success has been driven by strong collaborative relationships with key industry players, including dairy farmers, vets, milk processors, third party suppliers, and major retailers. NMR continues to develop and invest in new products and services, notably genomics and GenoCells.

Commenting on the acquisition, AB Agri CEO José Nobre said: “I am delighted that AB Agri has acquired NMR. NMR is a high-quality business which is extremely complementary and additive to our dairy strategy and offering to the dairy industry.



**José Nobre, AB Agri CEO**

“We have supported dairy farmers for more than 30 years with nutrition and specialty feed products, and more recently with data and technology platforms which deliver insights that create continuous improvement in agricultural supply chains.”

Commenting on the acquisition, NMR Finance Director, Mark Frankcom said: “We are delighted to now be part of AB Agri. AB Agri's status within the UK agricultural sector and expertise in the dairy industry will provide a significant benefit to NMR's customers.



**Mark Frankcom, NMR Finance**

“As the UK dairy supply chain continues its drive to carbon neutrality, NMR's work with GenoCells and milk data, and our pivotal role in payment testing, will contribute important information to aid in this transition.

“The backing of AB Agri will accelerate and de-risk NMR's ability to deliver its strategic objectives, streamlining industry processes by creating a holistic business that can provide end-to-end data and analysis to ensure the long-term sustainability, efficiency and profitability of UK dairy.”





**Vaccination in cattle is an important topic for livestock health and productivity. While it may not be a traditional source of humor but we can find ways to inject a little humor into the subject. Here are some lighthearted jokes and puns related to cattle vaccination:**

**Why did the rancher take his cow to get vaccinated?**

Because it had a bad case of "moo-nia"!

**What do you call a cow that's been vaccinated?**

"Immoo-nized"!

**Why did the cow refuse to get vaccinated?**

It heard the needle was a "herd" shot!

**Why did the rancher hire a comedian to administer vaccines?**

To ensure there were plenty of "cow-medic" moments!

**Why did the cow agree to get vaccinated?**

Because it wanted to be a "healthy desi" cow, not a "sick-si" cow!

**What did the farmer say after vaccinating his buffalo?**

"Now you're 'udderly' protected!"

**How do the desi cows prepare for vaccination season?**

They practice their "moo-dra" yoga to stay calm during the shot.

**Why did the farmer bring a sitar to the vaccination clinic?**

To serenade the cows with some "moo-sic" while they got their shots!

**How do desi cows celebrate after getting vaccinated?**

They have a "gau-rritos" party with plenty of treats!

**What's a vaccinated desi cow's favorite Bollywood movie?**

"Vaccination Ki Dulhania"

**How do desi cows celebrate their successful vaccinations?**

They throw a "moo-tiful" party with lots of sweet treats and "lassi" drinks!

**What did the farmer say to the**

**cow who was afraid of vaccination?**

"Don't worry, it's just a 'gaushot' for your protection!"

**How did the farmer know his cows were ready for vaccination?**

They formed a "moo-tiny" and demanded their shots!

**What did the cow tell its calf about vaccination?**

"Darling, getting vaccinated is just a 'holy cow-mandment' for us!"

**Why do cows love vaccination day?**

It's their chance to be "vacci-gated" and stay healthy!

**What's the favorite dance move of vaccinated cows?**

The "vaccination shuffle"!

**Why did the cow get a standing ovation after vaccination?**

Because it showed "udder" determination!

**What do you call a group of cows waiting for their vaccinations?**

A "herd-in-waiting"!

**How do cows react when they hear the vaccination date is approaching?**

They say, "Let's 'moo'-ve it to the front of the line!"

**Why did the buffalo wear sunglasses to the vaccination clinic?**

Because it wanted to look cool and avoid the "shot"!



## Mother Dairy's revenue rises 17% in FY23 to Rs 14,500 crore due to increased demand

Mother Dairy, founded in 1974, is a wholly owned subsidiary of the National Dairy Development Board (NDDB). It was founded as part of 'Operation Flood,' the world's largest dairy development programme launched to make India a milk-sufficient nation.

Delhi-Mother Dairy, NCR's leading milk supplier, said its turnover increased 17 percent to around Rs 14,500 crore in FY23 due to higher demand across all categories, including fresh milk, value-added dairy products, and edible oils.

In the previous fiscal year (Fy22), the turnover was around Rs 12,500 crore. Overall, growth was very healthy in the previous fiscal year. They expanded in almost every category, both in terms of value and volume. The growth in value-added dairy products was significant.

The demand for value-added products such as ice cream, curd, butter milk, and paneer was strong this summer, assisting the company to achieve handsome growth of more than 30%.

The last two fiscal years have been very strong for Mother Dairy, with growth of 20% in 2021-22 and 17% in 2022-23. Growth in fresh milk and edible oils has been faster than the industry average.

The edible oil segment accounts for 20-22 percent of total revenue, while horticulture (fresh-frozen fruits and vegetables) accounts for 6-7 percent.

Under the 'Mother Dairy' brand, Mother Dairy manufactures, markets, and sells milk and milk products such as cultured products, ice cream, paneer, and ghee.

The 'Dhara' brand sells edible oils, while the 'Safal' brand sells fresh fruits and vegetables, frozen vegetables and snacks, unpolished pulses, pulps and concentrates, and so on.

There are hundreds of milk booths and Safal retail outlets in Delhi-NCR. Mother Dairy operates nine dairy processing

plants under its own name. It also processes at third-party facilities. The total capacity for milk processing is more than 50 lakh litres per day.

The company owns four plants in the horticulture (fruits and vegetables) segment, and it manufactures edible oils through 16 associated plants.

## Karnataka's Ksheerabhagya Scheme Earns International Recognition with IDF Award

Chief Minister Siddaramaiah proudly announced that Karnataka's Ksheerabhagya scheme had achieved international recognition by winning the prestigious International Dairy Federation Award during a momentous celebration marking the 10th anniversary of the scheme.

This recognition demonstrates the scheme's success in providing critical support to the state's dairy industry as well as its commitment to welfare programmes.

The government has raised the price of milk per litre by Rs. 3 under the Ksheerabhagya scheme to benefit farmers, demonstrating its commitment to agriculture and rural livelihoods. This year, the government's investment in the scheme exceeds one thousand crores, demonstrating the government's ongoing commitment to the welfare of its citizens.

CM Siddaramaiah, the architect of the Ksheerabhagya programme, kicked off the 10th anniversary celebrations. During his tenure as Chief Minister, he instituted a programme to provide free milk to millions of children, which has benefited countless families over the last decade.

Various dignitaries attended the event, including Cooperation Minister KN Rajanna, Home Minister and District In-charge Minister Dr. G. Parameshwar, and KMF President Bhimanaik, who emphasised the positive impact of the

Ksheerabhagya scheme on milk producers and unions.

As part of the celebrations, Chief Minister Siddaramaiah was honoured, and a commemorative issue commemorating the success of the Ksheerabhagya Yojana was released.

## Faster Milk Transport: Dedicated Freight Corridor Reduces Transit Time Significantly



Western dedicated freight corridor (WDFC), a dedicated goods corridor has emerged as a cost-effective conduit for milk transport, is enabling faster transportation of dairy products from Gujarat to the National Capital Region (NCR).

A large portion of Delhi-NCR's dairy requirements are met by Gujarat-based plants. Banas and Mehsana dairy, among others, supply approximately 35 lakh litres of milk daily in the Palanpur area.

Previously, Indian Railways handled milk transportation via an efficient deployment of rail milk tanks on a dedicated circuit between Palanpur in Gujarat and the Delhi-NCR area.

The western dedicated freight corridor (WDFC) from New Dadri (in Uttar Pradesh) to Sanand (near Ahmedabad in Gujarat) has greatly aided the transportation of milk-tank waggons.

The transit time has been drastically reduced, ensuring the efficient and

dependable movement of essential commodities.

The transit time for Millennium (Milk) trains for Banas Dairy from DFC New Palanpur station/Gujarat to Palwal in Haryana, a distance of approximately 855 km, has been reduced to 14.49 hours from the previous 23.29 hours on Indian Railways' alignment, a savings of 37.23% in July 2023.

Milk trains now depart from New Palanpur and travel on the WDFC to New Prithla in Haryana. These then proceed to the Indian Railways alignment before arriving at the Hind Terminals multi-modal logistics park in Palwal.

Time savings are especially important for a perishable commodity like milk, and establishing DFC as a credible and cost-effective mode of transportation for dairy products is living up to its moniker of a true gamechanger, according to a DFCCIL statement.

Currently, approximately 2,196 km (77.2%) of DFC has been commissioned. Freight trains operate on these sections, supplementing Indian Railways' freight network capacity.

Construction on the remaining sections is nearing completion, and the remaining sections are expected to be completed within a year.

The eastern DFC has an average of 135 trains per day and the WDFC has an average of 80 trains per day. DFC has also reached the milestone of running one lakh trains on its alignment as of May 26, 2023.

## ICAR-NIFMD Welcomes Government Delegation, Showcasing Cutting-Edge Research Facilities

Ms. Alka Upadhya, Secretary, DAHD, Government of India, Dr. Joykrushna Jena, Deputy Director General (FS & AS), Dr. Abhijit Mitra, Animal Husbandry

Commissioner, DAHD, and Shri. S.K. Vashisth, Principal Secretary, FARD, Government of Odisha paid a visit to the ICAR-National Institute on Foot and Mouth Disease (ICAR-NIFMD), Bhubaneswar

All dignitaries were invited to a Ficus elastica plantation ceremony, followed by a tour of the institute's state-of-the-art Biosafety level 2 & 3 laboratory facility, which included an electron microscopy unit. The dignitaries were very impressed with the facilities and the Institute activities.



Ms. Alka Upadhya emphasised the importance of good quality vaccine, vaccination, and other interventions in reducing the burden of FMD on the Indian livestock population.

Dr. Joykrushna Jena, Deputy Director General (FS & AS), spoke about the Animal Science institutes that support DAHD activities through ICAR.

Dr. Abhijit Mitra, Animal Husbandry Commissioner, interacted with vaccine manufacturers, emphasising the importance of a high-quality vaccine for FMD control.

Dr. R.P. Singh, Director, ICAR-NIFMD, gave a formal welcome address, which was followed by a presentation on institute activities and its contribution to the Government of India's high priority National Animal Disease Control Programme (NADCP).



The experts Dr. V.A Srinivasan and Dr. B.Pattnaik shared their thoughts on the

importance of harmonisation and the need for an animal BSL-3 facility.

## Innovative Solar Solutions: Rajasthan's Milk Producers Embrace Sustainable Practices

Ten solar-powered milk chillers have been installed at Asha Mahila Milk Producers Company in Sirohi, Rajasthan, with a combined capacity of 5000 litres of milk per day and a solar power capacity of 33.5 KwP.

WWF India has installed solar-based milk-chillers at village level milk collection centres to promote energy transition in dairy cold chains, with each system capable of chilling 500 litres of milk per day and powered by a battery-supported 3.35 kWp solar unit. The launch event was held at one of the milk collection sites in Velangari village, Sirohi, Rajasthan.

WWF-India, in collaboration with the Asha Mahila Milk Producers Company Limited, which provides employment opportunities to rural women in the dairy industry, installed these chillers to demonstrate the improvement in milk quality. The units supplied by the Gujarat-based organisation Prompt Innovation will reduce the dairy units' reliance on diesel generators.

In India, the dairy industry provides a significant source of income for 80 million rural households. The farm-level collection centres in the facility are rudimentary, running partly on grid electricity and the rest of the time on diesel generators, making the process of refrigerating milk in a chilling centre energy intensive. Adopting solar-powered and efficient chilling technology/solutions can help increase production efficiency and reduce waste in the supply chain, and can play a critical role in enabling the transformation.

For over two years, WWF has been working in this area with HSBC under



the Climate Solution Partnership. WWF India has collaborated closely with Dairy Co-Operatives and Producer Companies on the installation of Solar Based IMC under this initiative. So far, WWF-India has installed 38 such chillers across Uttar Pradesh and Rajasthan, totaling 175 KW and capable of processing approximately 26,000 Litres of milk per day. It is the goal of the Climate Solution Partnership to install 1000 kW of solar-powered dairy cold chain.

WWF India's vision is to decarbonize and transform the dairy cold chain sector through the implementation of energy-saving mechanisms. To scale this up, we intend to collaborate with government institutions and other key stakeholders on policy and financing mechanisms. It will aid in the development of existing dairy players' knowledge bases and capacities, as well as contribute to the decarbonization of the dairy sector's cold chain in India.

"In order to impact the wider dairy sector for emission reduction, WWF-India is in the process of identifying large milk chilling and milk processing centres and is looking forward to solarizing their operations on a co-funding basis, which will support them with uninterrupted power supply, reduction of Diesel Generator usage, and cost savings," said Mr Vishal Dev, Director, Sustainable Business, WWF India. These propositions are also profitable for dairy units and have a high likelihood of adoption and replication due to a short payback period and improved milk quality."

Shri Parshottam Rupala, Hon'ble Cabinet Minister of Fisheries, Animal Husbandry, and Dairying, Government of India, congratulated women dairy farmers and support organisations on the installations during a virtual address to the farming community in Velangiri, Sirohi district, Rajasthan. Shri Rupala emphasised the Prime Minister's vision for improving milk quality in India. He also emphasised the importance of on-time milk chilling and how it benefits dairy farmers' income by reducing milk waste and utilising solar power. He stated that the government will investigate the programme results and, if positive, will support further expansion of the programme.

Dr. Meenesh Shah, Chairman of the

National Dairy Development Board, spoke on the occasion via virtual address and congratulated on the project's successful installation. He proposed that this installation will pave the way for improved milk quality through source chilling and will empower women dairy farmers through improved livelihood. He went on to say that with such innovative programmes, India can truly realise its vision of becoming the Dairy to the World, and he praised the efforts of WWF India and Prompt Innovation in putting these solar-powered instant milk chillers in place.

## **Amul's holds 49th AGM: Turnover crosses Rs 72,000 Crore, Targets Rs 1 Lakh Crore in 2-3 Years**

Amul held its 49th Annual General Meeting on Saturday, where it was revealed that the cooperative titan increased its turnover by 18.5% in 2022-23. Thus, GCMMF becomes India's largest FMCG brand, with a turnover of Rs 72,000 crore.

According to Amul's Twitter, "Amul is India's largest FMCG brand with a turnover of Rs 72,000 Crores (USD 9 Billion) in 2022-23."

Speaking on the occasion, Shamalbhai Patel, Chairman, thanked co-op doyens like Tribhuvan Das Patel and Verghese Kurien, saying that we are here because of their tireless efforts. In this context, he also mentioned some other legendary names.

According to Patel, Amul gives the world hope that such a business model is possible through cooperatives. He went on to say that Amul's self-sustaining model is a prime example of Atma Nirbhar Bharat.

The Chairman also stated that Amul's robust marketing strategy and the efforts of 36 lakh dairy farmers would result in a turnover of Rs 1 lakh crores in 2 to 3 years.

Jayen Mehta, Managing Director of

GCMMF, presented the details of the sectoral growth, stating that Amul beverages grew by 34% in 2022-23. Mehta also stated that Amul Ice-cream experienced a 40% increase.

He went on to say that Amul Butter grew by 19%, while Amul Ghee consumer packs grew by more than 9%. Amul saw a 20% increase in Amul long life milk, a 40% increase in Amul Dahi, a 16% increase in fresh Buttermilk, and a 20% increase in its largest product category, Amul fresh milk.

Vice-Chairman Valamji Humbal, perhaps the most active Director on social media, stated that Amul intends to reach out to every village in the country. He added that Amul is developing a strategy to accomplish this. He also stated that Amul currently has a presence in 50 countries.

Humbal also took the opportunity to thank the Modi government for creating a separate Ministry of Cooperatives and appointing Amit Shah as its Minister. Humbal mentioned Amul's involvement in two of the three newly formed Multistate Co-ops on Seed, Organic, and Export.

Amul has been a cooperative titan admired by all of the country's top leaders, from Prime Minister Narendra Modi to Union Minister of State for Animal Husbandry, Fisheries, and Dairy, Parshottam Rupala.

Rupala recently praised the Amul model for paying milk producers a whopping 75% of their earnings, saying it is in line with the country's stock raising efforts. Rupala was speaking at the inaugural session of the NDDDB and FAO-organized 'International Symposium on Sustainable Livestock Transformation' as part of the G20 programme.

## **Baroda Dairy Gains Approval to Procure Milk from MP Districts to Offset Production Decline**

The management of Baroda Dairy announced at its 66th Annual General Body (AGM) meeting on Saturday that it



had received in-principle approval from the Gujarat Cooperative Milk Marketing Federation (GCMMF) to begin procurement.

Baroda Dairy, the largest cooperative in Vadodara district, plans to buy milk from five Madhya Pradesh districts that share a border with Chhota Udepur to compensate for a daily loss of 1.5 lakh litres of milk recorded in the previous fiscal year.

The management of Baroda Dairy announced at its 66th Annual General Body (AGM) meeting on Saturday that it had received in-principle approval from the Gujarat Cooperative Milk Marketing Federation (GCMMF) to begin procurement.

Baroda Dairy, which has milk producers from Vadodara and Chhota Udepur districts, as well as Tilakwada taluka in Narmada, recorded a 2.28 crore kg decrease in milk procurement in the previous fiscal year, with overall procurement falling to about 22 crore kg from about 24 crore kg the previous year. As a result, the dairy has announced a remuneration of Rs 82.58 crore this year, compared to Rs 99 crore last year.

To compensate for the decline in milk production, which has, according to the dairy, impacted Gujarat, Baroda Dairy seeks milk from five MP districts, including Alirajpur and Barwani, which share a border with Chhota Udepur.

According to G B Solanki, vice president of Baroda Dairy, "the dairy sector in Gujarat has seen a decline ranging from 2% to 20% this year... The reason could be due to... larger-scale global warming. However, it is also the decreasing number of animal farmers on a local level. While the Patel and Kshatriya communities have gradually moved away from milk production, even in the tribal belt, many next-generation milk producers are finding work and abandoning the family business. So, because it is a chain of producers, we are looking at new avenues. If someone leaves, someone new will enter the business."

Solanki went on to say that a team of surveyors from Baroda Dairy estimated that 2.5 lakh litres of milk could be obtained daily from MP. "The GCMMF has largely approved the proposal to obtain milk from the five districts." Baroda

Dairy had dispatched teams to conduct a survey to determine how much milk could be made available after local consumption and purchase by private players. We are also considering some bordering districts in Maharashtra for future action."

The AGM, which saw the unanimous approval of the Baroda Dairy's profit and loss statement, was marred by commotion as some members raised concerns about the "lower payment for milk" announced by management. Satish Patel, Chairman of Baroda Dairy and former Karjan BJP MLA, said, "We have issued notices in newspapers, asking members to send a list of questions to be asked in the AGM seven days in advance, as per protocol." We did not receive any inquiries."

"It is a regular occurrence for some members to create a scene after the AGM... Milk farmers' pay corresponds to production, which has decreased not only at Baroda Dairy but throughout the state. It is because we are having difficulty retaining milk producers who want to pursue other avenues of income and are gradually leaving animal husbandry," he added.

## **Karimnagar Dairy Offers Entrepreneurial Opportunities with New Franchise Model**

Karimnagar Dairy, the leading dairy and household name in Telangana, has invited entrepreneurs to apply for Karimnagar Dairy franchises in various parts of the state.

The Karimnagar Dairy has invited entrepreneurs to apply for franchises modelled after Karimnagar Dairy departmental parlours. Applications were sought from residents of Nizamabad's Kanteshwar Crossroads, Warni Crossroads, Arshapalli Crossroads, Mubarrak Nagar, Aryanagar, and Subhashnagar.

Kasibugga, Rangasaipeta, Warangal crossroads, and Pocham maidan in Warangal town. Hanamkonda Crossroads, Nayeem

Nagar, Vaddepalli Church, Subedari, and Kazipet are all located in Hanamkonda. Shanthinagar, Collector Chowk, Ramnagar, Mahalaxmi Wada, and Kusheednagar/Bhukthapur in Adilabad town.

The Karimnagar Dairy had decided to open franchises in the mandals under the jurisdiction of the Karimnagar Dairy. Interested candidates were advised to apply by August 20, 2023.

Similarly, the dairy has invited young people to apply for positions as sales executives in order to increase sales of Karimnagar Dairy milk and milk products. More information is available from the Karimnagar Dairy managing director's office in Padmnagar, Karimnagar town. For more information, entrepreneurs can call 91770 or 9866889551.

Entrepreneurs and young talented people were encouraged to take advantage of the opportunity because Karimnagar Dairy had a strong brand presence in Telangana state and a well-established loyal customer base. Customers could purchase milk, milk products, and other items from the Karimnagar Dairy.

## **Central Government Grants Rs 40 Crore to TTD for Sahiwal Cow Breeding**

The Central Government has granted Rs 40 crore to the Tirumala Tirupati Devasthanams (TTD) for its Sahiwal cow breeding programme.

TTD chairman Bhumana Karunakara Reddy mentioned the grant at S. V. Gosamrakshanasala during a gopuja (cow worship) programme.

"The union government has recognised the TTD's Sahiwal cow breeding programme and granted Rs 40 crores for the project," said Reddy in a press release, urging all Indians to protect gomata (cow), which is revered as a mother to all Hindus.

According to the National Dairy Development Board (NDDB), the Sahiwal cow is one of India's best milch cattle breeds.

# Editorial Calendar 2023

Publishing Month: <b>January</b> Article Deadline : <b>28<sup>th</sup>, Dec. 2022</b> Advertising Deadline : <b>30<sup>th</sup>, Dec. 2023</b> Focus : <b>Climate Management</b>	Publishing Month: <b>February</b> Article Deadline : <b>28<sup>th</sup>, Jan. 2023</b> Advertising Deadline : <b>30<sup>th</sup>, Jan. 2023</b> Focus : <b>Nutritional Deficiency Effects</b>	Publishing Month: <b>March</b> Article Deadline : <b>26<sup>th</sup>, Feb. 2023</b> Advertising Deadline : <b>28<sup>th</sup>, Feb. 2023</b> Focus : <b>Herd / Breed Management - Fertility, Breeding &amp; Reproduction</b>	Publishing Month: <b>April</b> Article Deadline : <b>28<sup>th</sup>, March 2023</b> Advertising Deadline : <b>30<sup>th</sup>, March 2023</b> Focus : <b>Disease Prevention/ Risk Assessment</b>
Publishing Month: <b>May</b> Article Deadline : <b>28<sup>th</sup>, April 2023</b> Advertising Deadline : <b>30<sup>th</sup>, April 2023</b> Focus : <b>Small Ruminants Management (Sheep, Goat etc)</b>	Publishing Month: <b>June</b> Article Deadline : <b>28<sup>th</sup>, May 2023</b> Advertising Deadline : <b>30<sup>th</sup>, May 2023</b> Focus : <b>Calf &amp; Heifer Management</b>	Publishing Month: <b>July</b> Article Deadline : <b>28<sup>th</sup>, June 2023</b> Advertising Deadline : <b>30<sup>th</sup>, June 2023</b> Focus : <b>Milk Production Management/ Milking Practices</b>	Publishing Month: <b>August</b> Article Deadline : <b>28<sup>th</sup>, July 2023</b> Advertising Deadline : <b>30<sup>th</sup>, July 2023</b> Focus : <b>Feed &amp; Fodder</b>
Publishing Month: <b>September</b> Article Deadline : <b>28<sup>th</sup>, August 2023</b> Advertising Deadline : <b>30<sup>th</sup>, August 2023</b> Focus : <b>Vaccination Protocols/ Cattle Herd Immunization</b>	Publishing Month: <b>October</b> Article Deadline : <b>28<sup>th</sup>, September 2023</b> Advertising Deadline : <b>30<sup>th</sup>, September 2023</b> Focus : <b>Dairy By-products</b>	Publishing Month: <b>November</b> Article Deadline : <b>28<sup>th</sup>, October 2023</b> Advertising Deadline : <b>30<sup>th</sup>, October 2023</b> Focus : <b>Potential of Dairy Farming</b>	Publishing Month: <b>December</b> Article Deadline : <b>28<sup>th</sup>, November 2023</b> Advertising Deadline : <b>30<sup>th</sup>, November 2023</b> Focus : <b>Calf Management</b>

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