

Livestock & Feed Trends



VOLUME - 20 • NUMBER - 4 • JANUARY-MARCH 2023



**CLFMA OF INDIA's
NEW CHAIRMAN MR. SURESH DEORA
ALONG WITH HIS TEAM – 2022-2024**

INTRODUCING SUPER STIMULANT VANNAMEI FEED



BayWhite Advanced

Super Stimulant Vannamei Feed

- Stimulates the special sensory cells that attracts shrimp to the feed
- Ensures continuous intake of feed
- Promotes faster growth and reduces wastage
- HP Boost - Boosts hepatopancreas function with functional ingredients
- Healthy Gut - Maintains healthy microflora in gut and limits Vibro Sp in gut



WATERBASE
Innovating for your growth

PRAWN FEED



VANNAMEI FEED



BLACK TIGER
SHRIMP FEED



BLACK TIGER
SHRIMP FEED



Avanti Feeds Limited

In the business of quality Prawn feed and Prawn Exports
An ISO 9001:2015 Certified Company

Aiding sustainability & reliability to Aquaculture

Shrimp Hatchery



Feed Plant - Gujarat



Prawn Feed & Fish Feed



Prawn Processing & Exports

INNOVATIVE - SCIENTIFICALLY FORMULATED - PROVEN

- GREATER APPETITE • HEALTHY & FASTER GROWTH
- LOW FCR WITH HIGHER RETURNS • FRIENDLY WATER QUALITY

AVANT AQUA HEALTH CARE PRODUCTS

AVANTI A.H.C.P. RANGE



IN COLLABORATION WITH:
THAI UNION FEEDMILL CO., LTD.,
Thailand.



Chelated Trace
Mineral Supplement

Avant Bact

Aiding Sustainability & Reliability to Aquaculture
Gut Probiotic



Marine Mineral

Avant Ammoni Absorb

AIDING SUSTAINABILITY & RELIABILITY TO AQUACULTURE
Ammonia Absorber

Avant D-Flow

Water Quality Improver

Avant Immupak

AIDING SUSTAINABILITY & RELIABILITY TO AQUACULTURE
Immunity Enhancer

Avant ProW

Soil & Water Probiotic

Avant Catcher

AIDING SUSTAINABILITY & RELIABILITY TO AQUACULTURE
1

Corporate Office: **Avanti Feeds Limited**

G-2, Concord Apartments, 6-3-658, Somajiguda, Hyderabad - 500 082. India. Ph: 040-2331 0260 / 61, 040-4460 8222. web: www.avantifeeds.com

Regd. Office: **Avanti Feeds Limited**

Flat # 103, Ground Floor, R Square, Pandurangapuram, Visakhapatnam - 530003. Andhra Pradesh. INDIA. Ph: 0891-2555011.

Mycofix®



Absolute protection

Powered by science to actively defend against multiple mycotoxins*

With 3 combined strategies



ADSORPTION



BIOTRANSFORMATION



BIOPROTECTION

If not us, who? If not now, when?
WE MAKE IT POSSIBLE

*Authorized by EU Regulation 1060/2013, 2017/913, 2017/930, 2018/1568 and 2021/363.



**ANIMAL
NUTRITION
AND HEALTH**

ESSENTIAL
PRODUCTS

PERFORMANCE
SOLUTIONS +
BIOMIN®

PRECISION
SERVICES

www.dsm.com/anh

Follow us on:



DSM

BRIGHT SCIENCE. BRIGHTER LIVING.

From the Chairman's Desk.....

Dear Friends,

Greetings!

This will be the last quarterly issue of the year 2022-2023 of the Livestock and Feed Trends.

Let me take the opportunity to brief you on CLFMA activities during the past three months.

CLFMA OF INDIA started its' new year with number of activities viz. Representations to Government, Webinar with BCIL and ANSI, Meetings with Government of India, Meeting with Dutch Delegation, Meeting with Mr. Roger D. Gilbert, Publisher and CEO at Milling and Grain and Publisher of International Aquafeed Magazines, Ex-Secretary General of IFIF.

CLFMA Election for the year 2022-2024 took place and new leadership team took charge from the outgoing Chairman Mr. Neeraj Kumar Srivastava, Managing Director, South Asia and South – East Asia, Novus International w.e.f. 16th February, 2023, for the year 2022-2024. I'm happy to be elected as the Chairman of this renowned association, and will promise to do my level best to take CLFMA to greater heights with the support of my new team.

On 24th February, 2023 CLFMA participated in the meeting organized by Food Safety and Standards Authority of India (FSSAI), FDA Bhawan, Kotla Road, New Delhi. A scheduled meeting was held under the Chairmanship of Shri. G. Kamala Vardhana Rao, Chief Executive Officer, FSSAI on 24th Feb' 2023 at 11:00am to discuss various issues relating to animal feed and feed ingredients, manufacturing units, organized and unorganized feed industry, etc. From CLFMA OF INDIA, CLFMA Chairman Mr. Suresh Deora (myself), Dy. Chairman Mr. Divya Kumar Gulati, Dy. Chairman Mr. Sandeep Kumar Singh, Mr. Abhay Shah, Hon. Secretary, CLFMA Member Dr. Saikat Saha



participated in the meeting and Mrs. Chandrika Venkatesh Participated in the virtual meeting.

CLFMA Chairman Mr. Suresh Deora (myself), and Mr. Divya Kumar Gulati, Dy. Chairman of CLFMA visited to Krishi Bhavan on 1st and 2nd March, 2023 to build up a rapport with the Government of India.

On 5th March, 2023 PMO Office, New Delhi requested for the information on the price trends of Feed (Concentrates) during last three months and projections for summer months, CLFMA satisfactorily provided the same on top priority basis.

On 28th and 29th March, 2023 Myself and Dy. Chairman of CLFMA Mr. Divya Kumar Gulati met Shri. Jatindra Nath Swain, Secretary (Fishery), New Delhi, Shri. O. P. Chaudhary, Joint Secretary (NLM/PC), New Delhi, Dr. J. Balaji, I.A.S., Joint Secretary (Marine Fisheries), Shri. G. Kamala Vardhana Rao, IAS, CEO, FSSAI, New Delhi, Shri. Hans Raj Khanna, Joint Commissioner (NLM) to discuss issues related to Livestock Sector.

I have updated above on a few major CLFMA activities. You will get all the details of CLFMA Activities during three months under the heading **CLFMA Activity Updates**.

From the Chairman's Desk.....

CLFMA would also help members by preparing an additional list of Feed Additives and shortly presenting the same to the Government of India, which will be added to earlier Feed Additive List, which was earlier approved by GOI.

CLFMA OF INDIA has tied up for a discounted stall rates in the Expos viz North East Livestock – Aqua-Poultry (NELAP) Expo 2023, which is scheduled from 18th to 20th April, 2023 at Maniram Dewan Trade Centre, Guwahati, Assam & also in the Livestock Expo, which is scheduled from 3rd to 5th August 2023 at India Expo Centre, Greater Noida, UP and the details of the same has been circulated to all members in regular intervals to avail the discounts on booking of stalls and sponsorships on producing

the CLFMA ID to the organizers.

I would like to solicit your valuable inputs and suggestions to improve further and achieve newer heights.

Let's strive hard to achieve more success in the coming years!

With warm regards,

For **CLFMA OF INDIA**,



Suresh Deora
Chairman



05CHAIRMAN'S DESK

COMMODITY UPDATES.....08



27CLFMA UPDATES

NEWS & VIEWS.....35



41-48DAIRY

POULTRY.....51-56



57-62GENERAL

CALENDAR OF EVENTS.....63



EDITORIAL BOARD

Dr. Ajit Ranade

Dr. R. S. Masali

EDITOR

Ms. Chandrika Venkatesh

OFFICE BEARERS

Mr. Suresh Deora
CHAIRMAN

Mr. Sumit Sureka
DEPUTY CHAIRMAN

Mr. Divya Kumar Gulati
DEPUTY CHAIRMAN

Mr. Naveen Pasuparthi
DEPUTY CHAIRMAN

Mr. Sandeep Kumar Singh
DEPUTY CHAIRMAN

Mr. Abhay Shah
HON. SECRETARY

Mr. Nissar F. Mohammed
TREASURER

Printed, Published and Edited by Ms. Chandrika Venkatesh on behalf of CLFMA OF INDIA, Printed by Sugam Printers, 21/649, West View Chs. Ltd., Shastri Nagar, Goregaon (W), Mumbai 400 104 and Published from 111, Mittal Chambers, 11th Floor, 228, Nariman Point, Mumbai - 400 021. Tel. No. 91-22-2202 6103. Fax No. : 91-22-2288 0128. Editorial View are independent.

The information contained is true/correct to the best of our knowledge and belief and the opinions expressed are of the authors and not of CLFMA or Livestock and Feed Trends. We cannot accept any liability for any loss or damage arising from the use of information contained herein.

• website : www.clfma.org

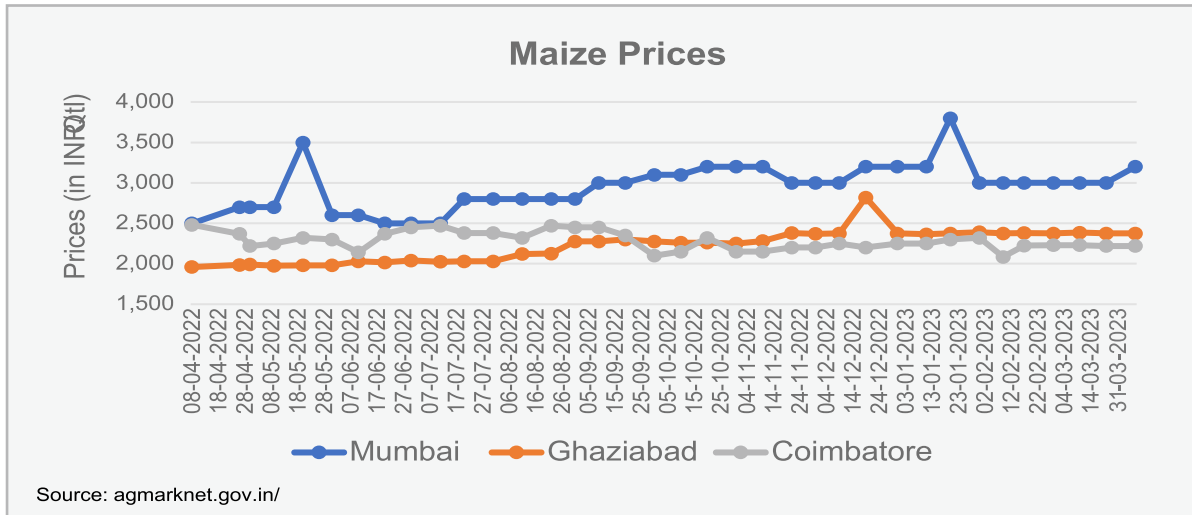
• E-mail : admin@clfma.org



Commodity Updates

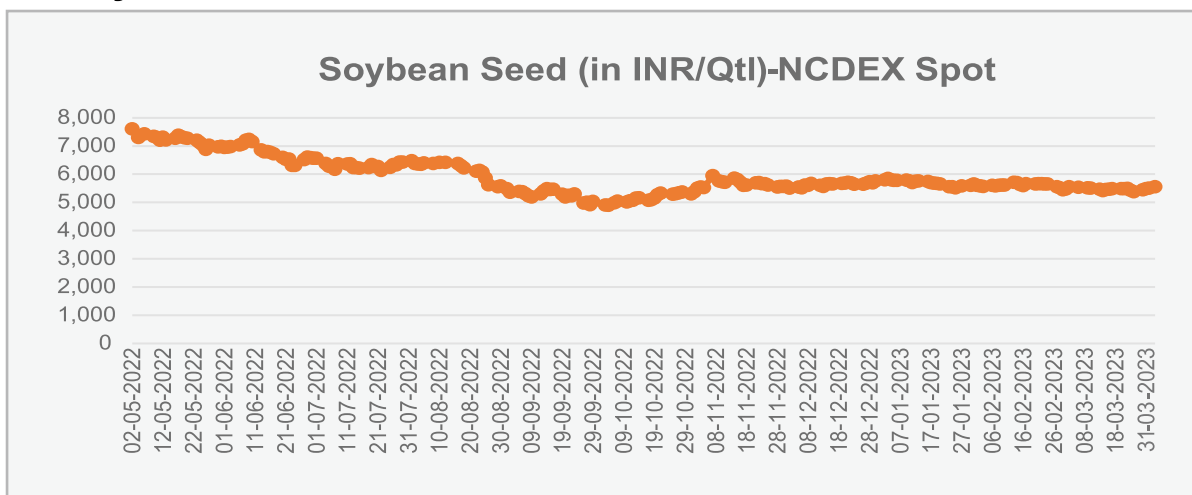
1. Domestic Prices

I. Maize



Maize Prices (INR/Quintal)		
City	31/03/2023	28/02/2023
Mumbai	3,200	3,000
Ghaziabad	2,375	2,375
Coimbatore	2,220	2,230

II. Soybean





Safer food, better health

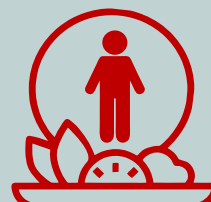
SAFE FEED SAFE FOOD



Creating a safe environment for the future generation.



If it is not safe, it is not food.



Food safety has a direct impact on health.



Strengthening collaboration improves food safety.



Investing in food safety today will reap future rewards.

*Only when we work together,
we can achieve safer food for better health.*

ABTL

We took an already
great product and
made it even better.

eXolution is now Xcelsio.

Our relentless effort to make the world a safer and healthier place has led us to create Xcelsio. After years of cutting-edge research in Korea, we have come up with an advanced formulation to make Xcelsio more potent than before.

Xcelsio comes with a more concentrated cocktail of bacteriophage and is fortified with more *Bacillus subtilis*. This new and improved formulation, created specifically for use in

poultry, is simply unmatched in controlling pathogenic bacteria—giving you Total Gut Control.

Each of our bacteriophages is painstakingly selected using our proprietary Bacterophage F technology to target and eliminate specific bacteria; leaving other beneficial bacteria completely unharmed. This natural surgical strike on disease-causing bacteria is the safest, non-toxic, and most effective prophylactic alternative to antibiotic growth promoters.

xcelcio

Natural Feed Additive



BENEFITS TO THE FLOCK

Natural:

No Toxins, No Residues, No Side-effects,
No Withdrawal Time

Surgical:

Targets and eliminates specific bacteria,
even those resistant to antibiotics

Protective:

Maintains gut balance by retaining
beneficial bacteria

Probiotic:

Enriched with *Bacillus Subtilis*

Flexible:

Compatible with all Performance
Enhancers, Growth Promoters, Acidifiers,
Anti-Oxidants, Minerals & Enzymes

BACTERIA IT CONTROLS

Salmonella

Typhimurium, Gallinarum, Choleraesuis,
Derby, Dublin, Enteritidis, Pullorum

E. Coli

F4 (K88), F5 (K99), F6 (987P), F18, F41

Clostridium Perfringens

Type A, C, B, D, E

Staphylococcus Aureus

FOR USE IN
BROILERS, LAYERS
& BREEDERS

MADE IN KOREA BY:



IMPORTED & DISTRIBUTED BY:

Sapience Agribusiness Consulting LLP
328 HRBR Layout, 4th A Cross
3rd Block, 3rd Main, Kalyan Nagar
Bangalore 560043, Karnataka (KA), INDIA

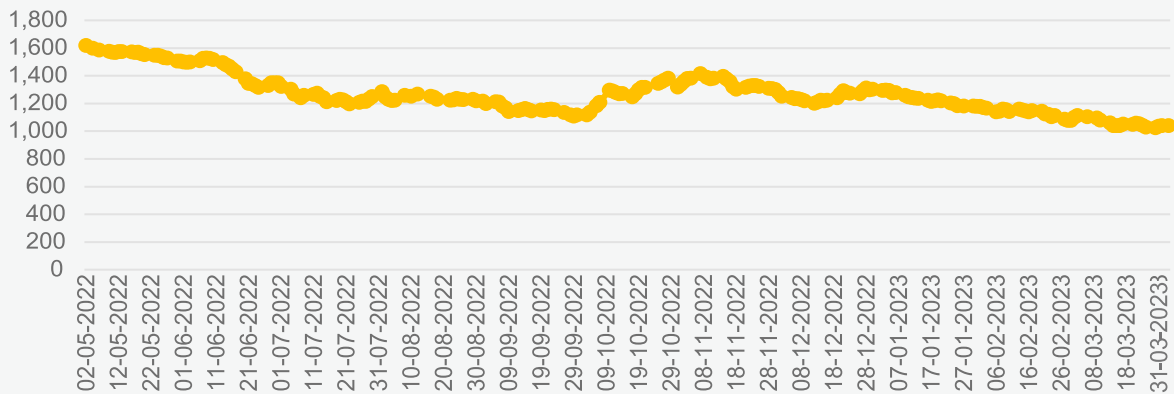


Soybean Complex Prices-NCDEX Spot

Commodity (Unit)	31/03/2023	28/02/2023
Soybean Seed (in INR/Qtl)	5,555	5,509
Ref. Soya Oil (in INR/10kg)	1,041	1,077
Soymeal (in INR/MT)	49,500	49,000

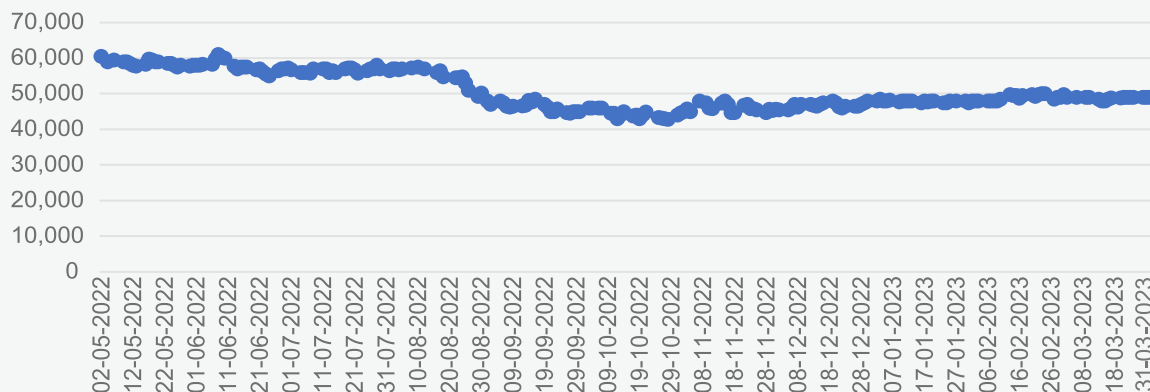
Ref Soya Oil

Ref. Soya Oil (in INR/10kg)-NCDEX Spot

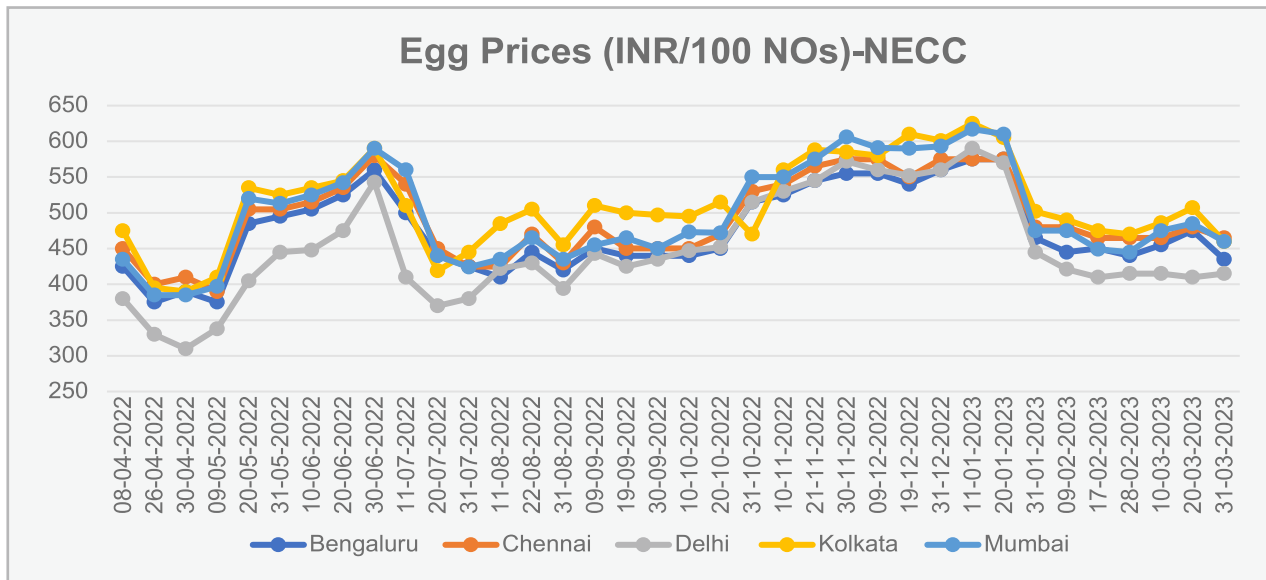


Soymeal

Soymeal (in INR/MT)-NCDEX Spot



III. Egg Rates



EGG PRICES (INR/100 NOs)

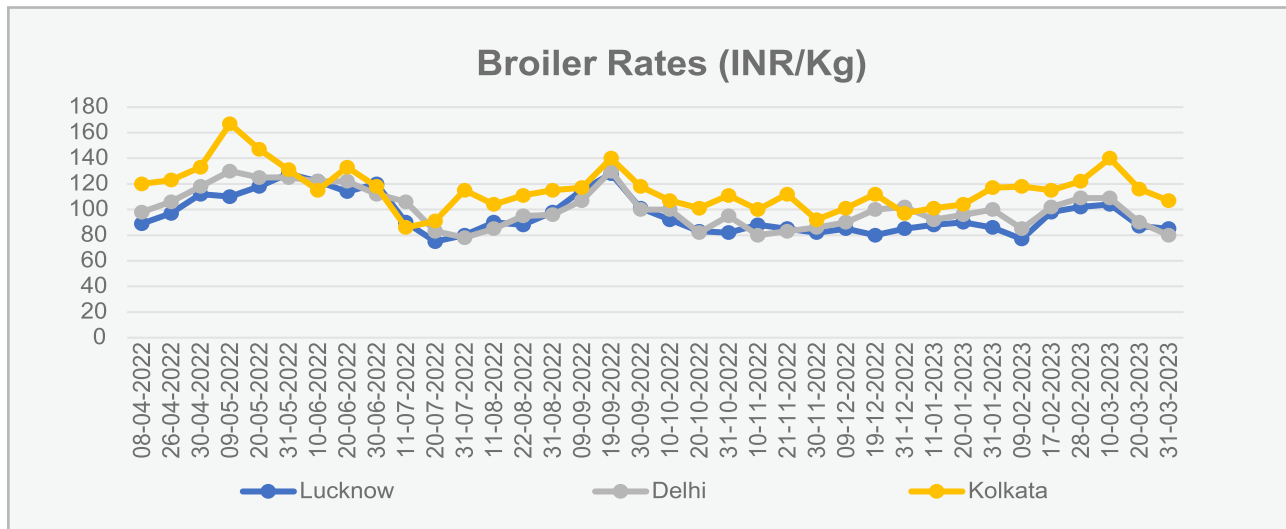
Name of Zone	31/03/2023	28/02/2023
NECC Prices		
Ahmedabad	450	435
Ajmer	400	400
Barwala	399	395
Bengaluru (CC)	435	440
Brahmapur (OD)	423	434
Chennai (CC)	465	465
Chittoor	458	458
Delhi (CC)	415	415
E.Godavari	408	410
Hospet	395	400
Hyderabad	395	385
Jabalpur	415	412
Kolkata (WB)	460	470
Ludhiana	394	393
Mumbai (CC)	460	445
Mysuru	440	442
Namakkal	450	440
Pune	450	449
Raipur	405	415
Surat	470	440
Vijayawada	408	410
Vizag	420	410
W.Godavari	408	410
Warangal	397	387

III. Egg Rates

EGG PRICES (INR/100 NOs)		
Name of Zone	31/03/2023	28/02/2023
Prevailing Prices		
Allahabad (CC)	452	443
Bhopal	435	410
Indore (CC)	425	420
Kanpur (CC)	438	433
Lucknow (CC)	473	470
Muzaffarpur (CC)	460	460
Nagpur	420	390
Patna	460	460
Ranchi (CC)	467	443
Varanasi (CC)	457	457

Source: NECC

IV. Broiler Rates



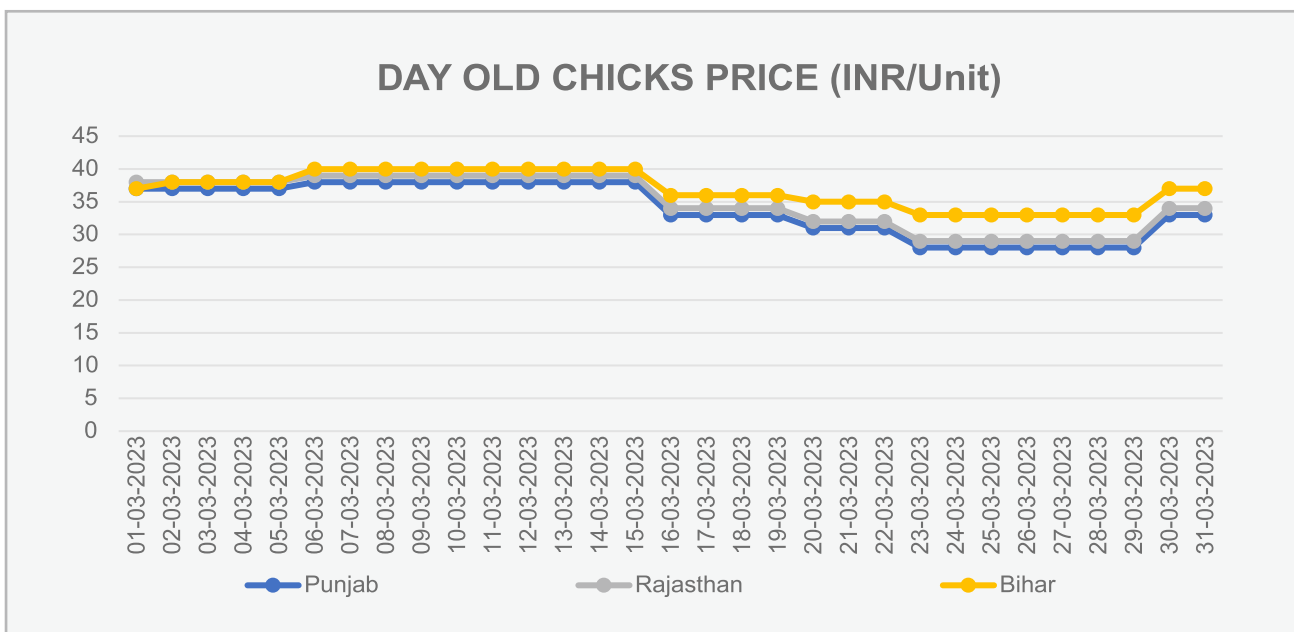
BROILER RATES (INR/Kg)		
Location	31/03/2023	28/02/2023
Delhi	80	109
Punjab	87	122
Raipur	90	84
Pune	80	86
Bengaluru	103	80
Hyderabad	106	88
Guwahati	85	93
Kolkata	107	122
Bihar	102	105
Madhya Pradesh	110	74
Lucknow	85	102

Source: SRP (Wholesale Rates)

V. Day old Chicks Price

DAY OLD CHICKS PRICE (INR/Unit)		
State	31/03/2023	28/02/2023
Punjab	33	37
Dehradun	34	38
Haryana	33	37
Himachal Pradesh	34	38
Rajasthan	34	38
Jammu	34	38
Andhra Pradesh	27	25
Uttar Pradesh	37	38
Madhya Pradesh	36	26
Telangana	27	25
Bihar	37	37
Jharkhand	37	37
Gujarat	34	25

Source: Poultry India TV/ SRP





WE HELP YOU STAY FARM-PROUD

Balancing nutrition-economics remains a prominent challenge whether you raise poultry, aqua, swine or ruminants. Being one of the world's leading vertically integrated manufacturers of food/feed ingredients, Camlin Fine Sciences (CFS) is dedicated to give producers and farmers an informed decision on feed purchases. Regardless of the species reared, CFS helps you to master feed conversion ratio and return on investments for a profitable farming.

We offer a comprehensive range of products, feed sanitization services and other holistic healthcare approaches including antibiotic alternatives. These help improve your overall farm health. **Through our work we promote nutrition, health and hygiene to influence animal performance. Keeping you proud of your farms is our mission.**

Xtendra[®]

MYCOSIL[™]
SEQUESTERING AFLATOXIN

TOPSIL[™]
MYCOTOXIN SEQUESTERANT

A broad spectrum toxin binder
GLUCOSIL[™]
SEQUESTERING MYCOTOXINS ENHANCING PROTECTION

Improved Nutrition. Improved Health.
POLIACID[™] R60[®]
Best of both worlds with one unique partner

POLIACID[™] TB
The gut integrator

ENERSUPRA[™]
Choline precursor for ruminants

FORTICHOL[®]
Choline Chloride...the essential

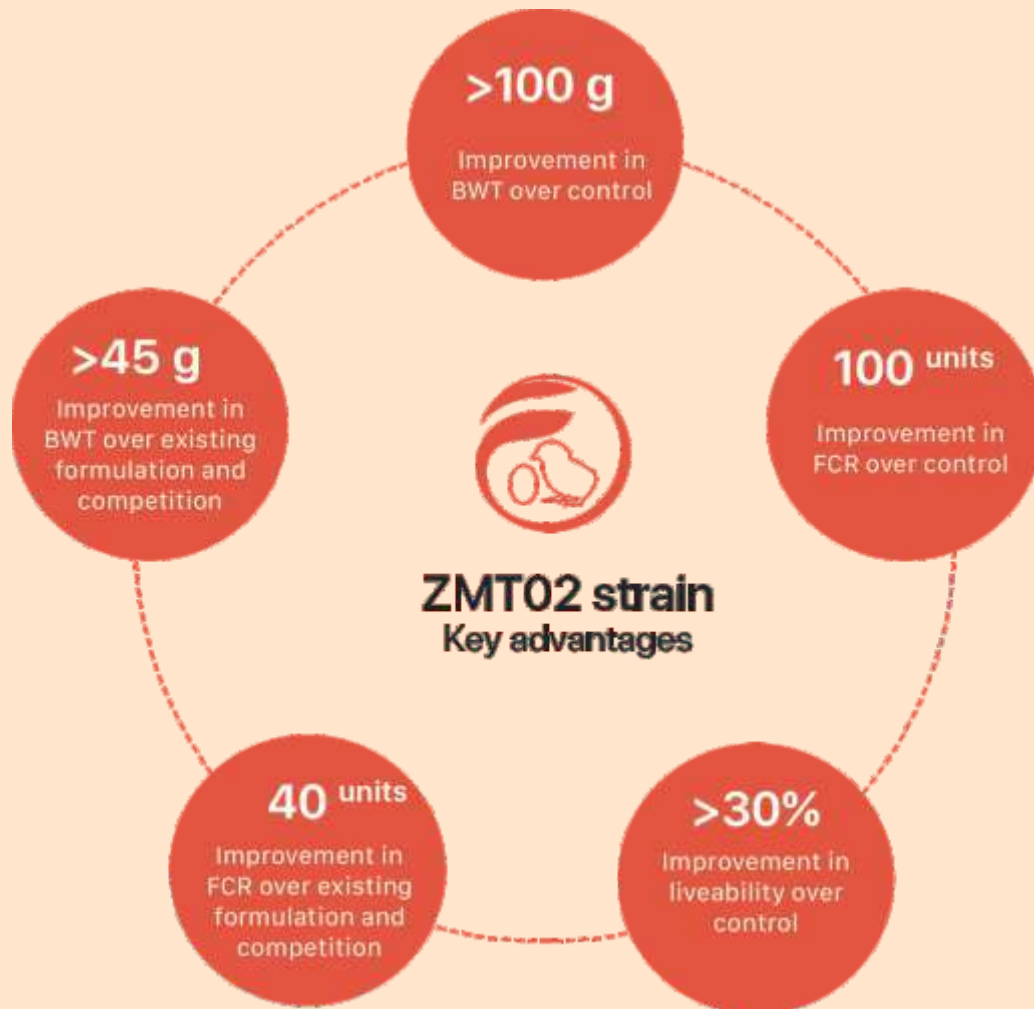
Nutrinase[®]
Health & Performance Solutions

gzone
Rejuvenating microflora

SALPLUS ULTRA[®]
Health and Performance Solutions

Camvit[®] E50

The powerful probiotic strain screened and isolated from the chicken gut



— THE KEY TO TOTAL GUT INTEGRITY —
Improval BFS

Improval MS

The key to total gut integrity

Zenex AH was formerly Zydus AH

VI. Fish Prices

Fish Prices Average Price (INR/Quintal)		
Fish Type	31/03/2023	28/02/2023
Bata Putti	12,000	9,000
Black Dom	15,000	10,000
Chilwa	9,000	9,000
Halwa	31,000	28,000
Hilsa	64,000	65,000
Katla (Small)	12,000	8,000
Malli (Big)	20,000	15,000
Malli (Small)	15,000	10,500
Pangass	8,000	7,500
Rahu (Andhra)	11,000	12,000
Singhra (Big)	31,000	27,000
Singhra (Small)	20,000	18,000
Sol	40,000	33,000
Soli	30,000	23,000
Surmai (Big)	53,000	43,000
Surmali (Small)	45,000	33,000
White Dom	17,000	13,000
Zinga (Zambo-A)	57,000	52,000
Zinga (Zambo-B)	51,000	46,000
Zinga (Zambo-C)	48,000	41,000

Source: www.commodityonline.com
The Prices are of Delhi (Gazipur Mandi)

2. Global Commodity Prices

Commodity (Unit)	PRICE (31/03/2023)
Milk (USD/CWT)	18.06
Rapeseed (Euro/Ton)	475.75
Soybean Meal (USD/Ton)	458.50
Soybean Oil (USD/lb)	0.57
Live Cattle (USD/Lbs)	1.68
Poultry (USD/Kgs)	1.34
Eggs US (USD/Dozen)	3.38

Source:tradingeconomics; markets.businessinsider

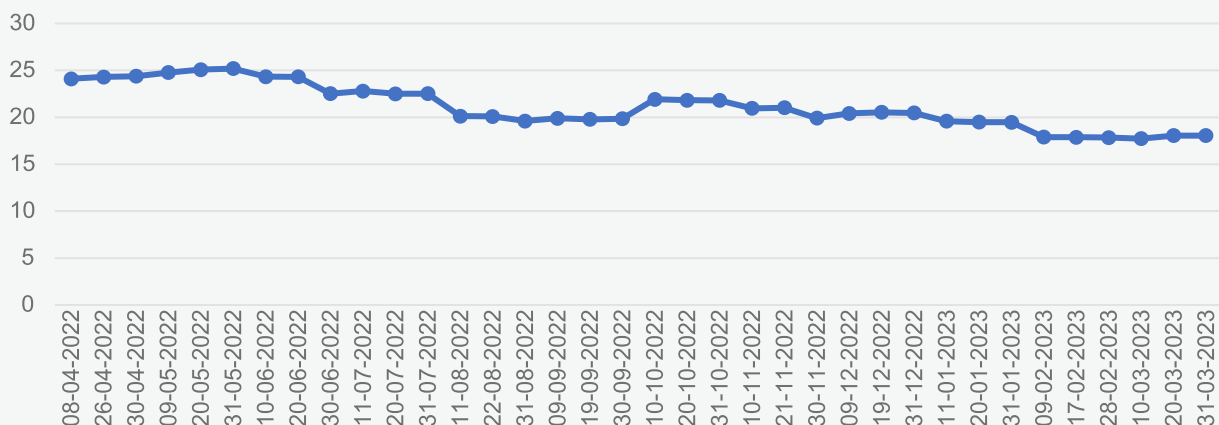
USD: United States Dollar

CWT: Short Hundredweight

Lbs: Pounds

1 BRL (Brazilian Real) = 0.19 USD

Milk (USD/CWT)





Truly
Differentiated
Solutions

KEMIN

Kemtrace[®]
Performance Proven through Research

Neospark

For Improved Productivity and Health

EubraMax Poultry



**Safe
Feed
Additive**

**The Power of
Phytogenics
and
Organic Acid**

**↑Antimicrobial Action ↑Immunity
↑Gut Health ↑Enzyme Secretion**

**The Next Generation
Eubiotic
Feed Additive**

www.neospark.com

Neospark

mail@neospark.co.in

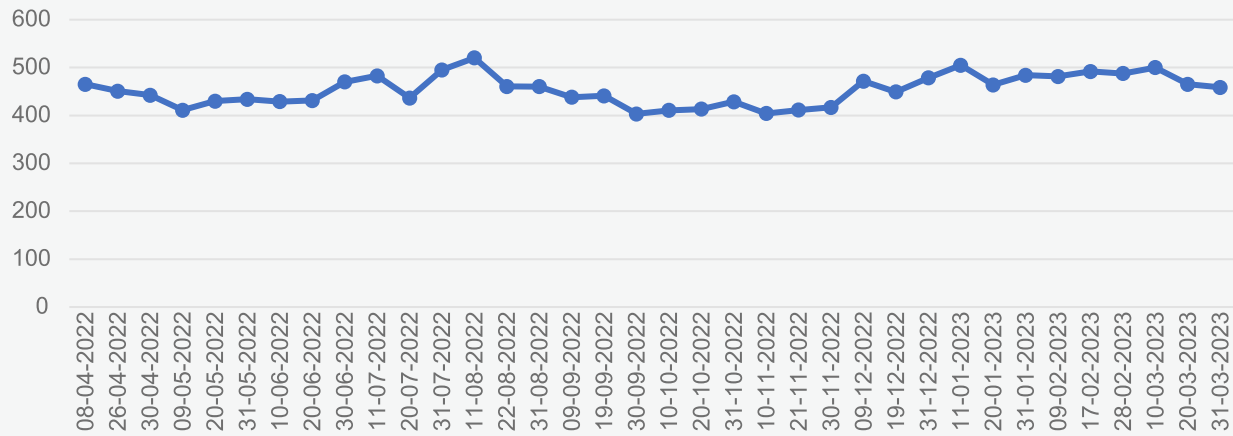


A GMP+ FSA, FAMI-QS, ISO 9001:2015 and EIC Certified Company

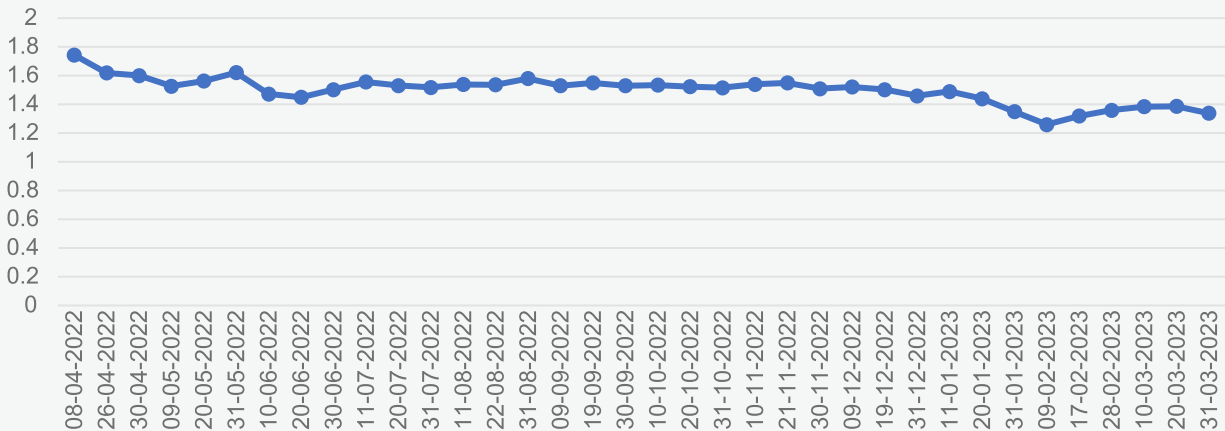


2. Global Commodity Prices

Soybean Meal (USD/Ton)

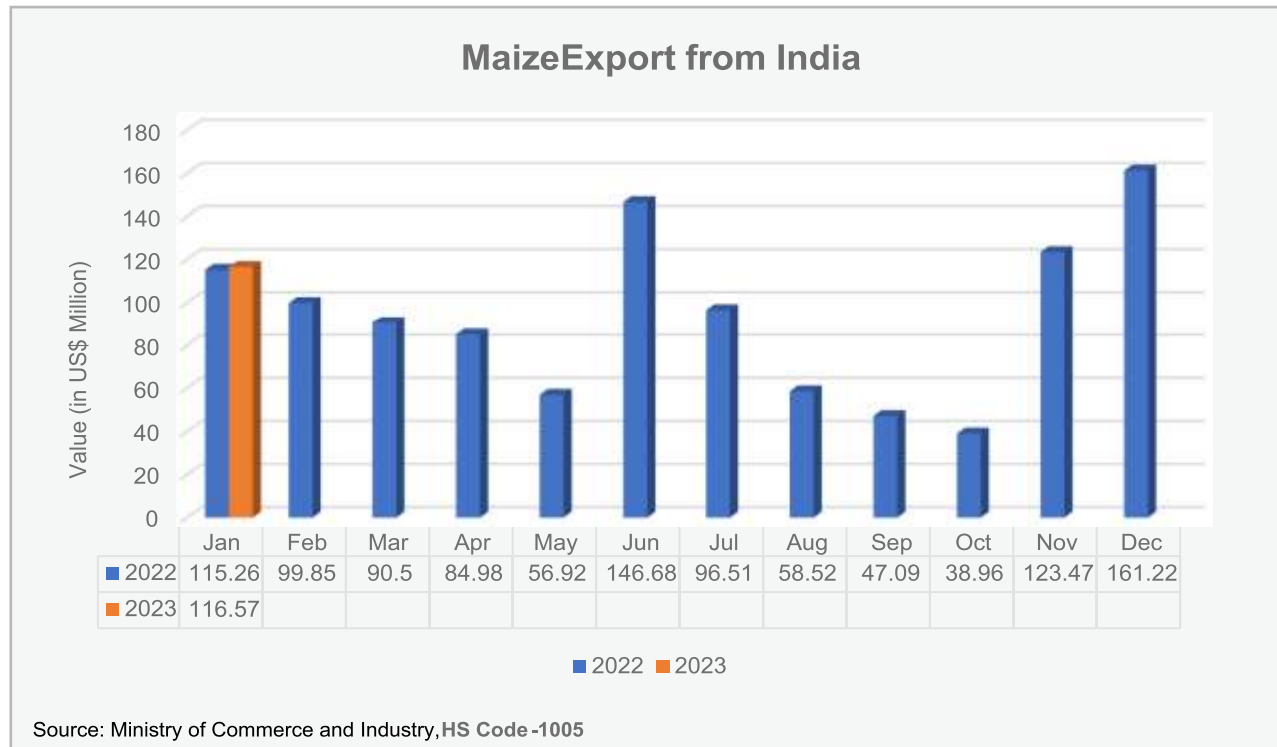


Poultry (USD/Kg)

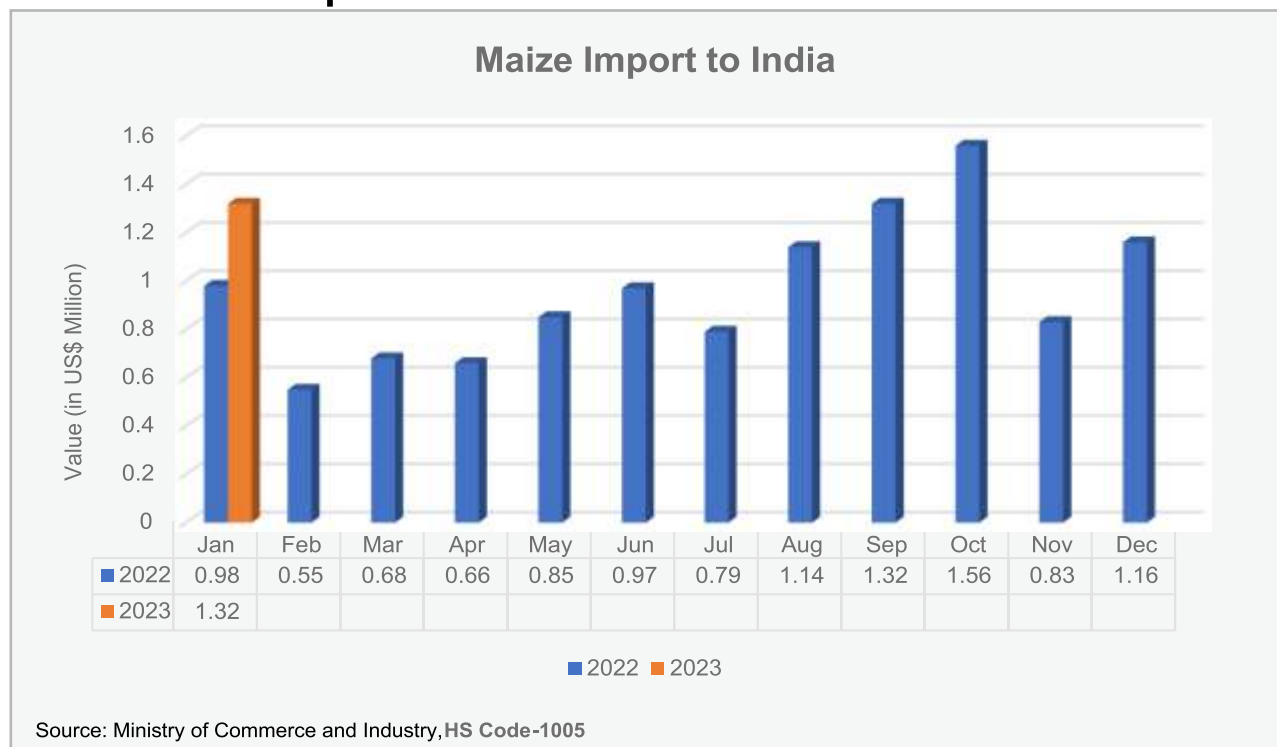


3. Trade Details

India: Maize Export

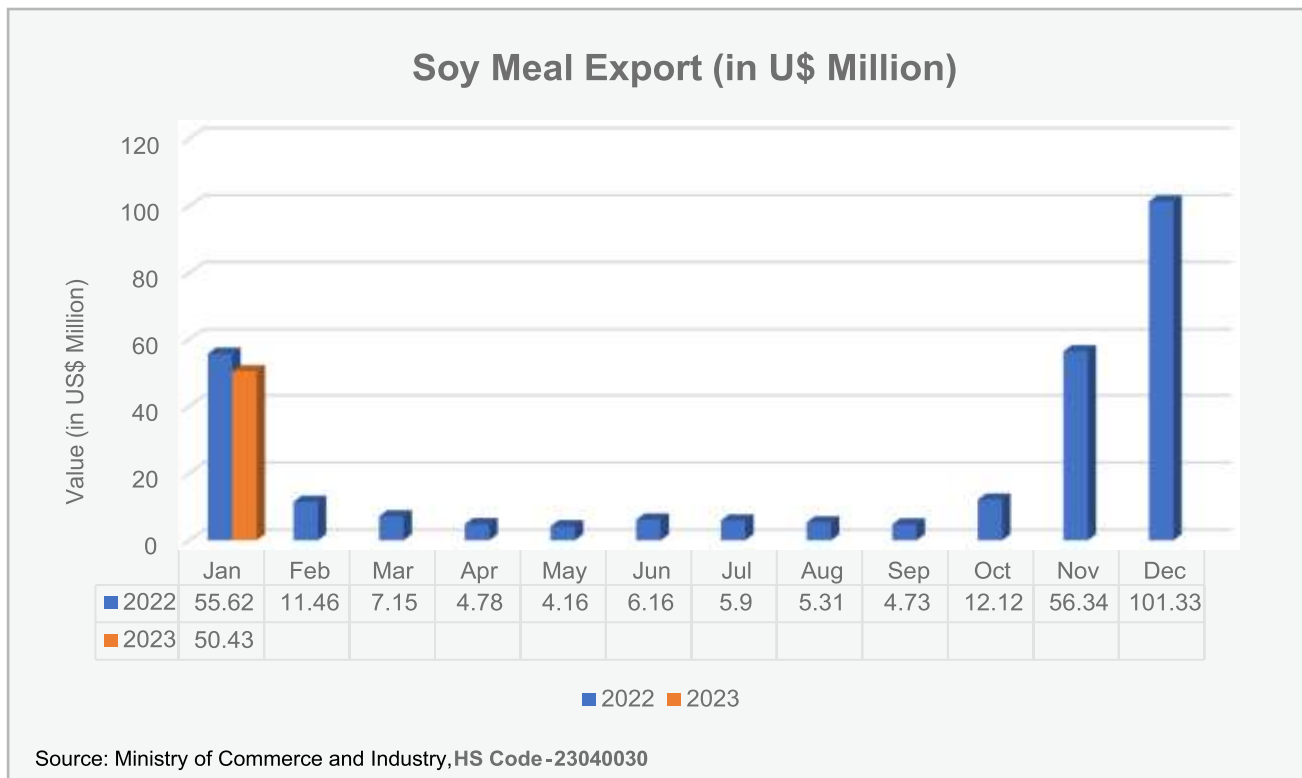


India: Maize Import

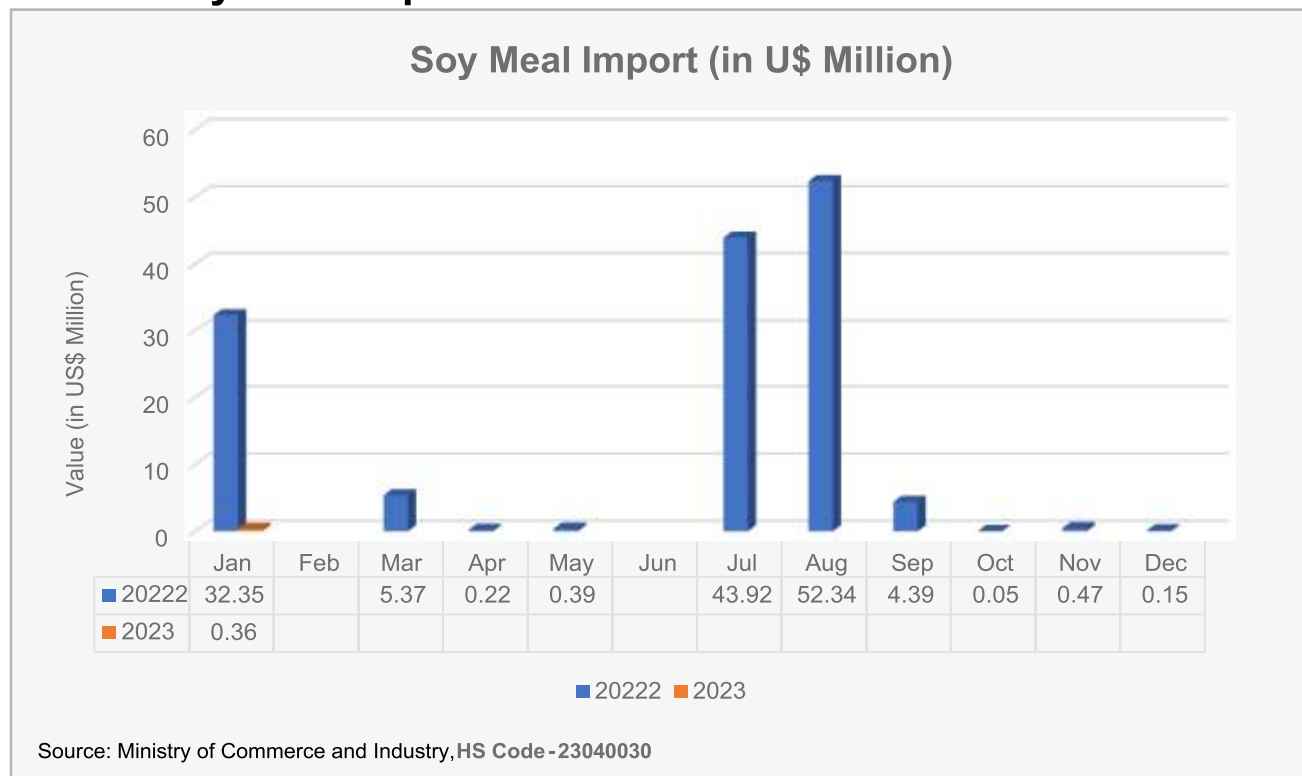


Note: This Data is sourced from the Ministry of Commerce and Industry, which was last updated in January.

India: Soy Meal Export



India: Soy Meal Import



Note: This Data is sourced from the Ministry of Commerce and Industry, which was last updated in January.

5. Market Drivers

Maize

Market Drivers	Monthly Outlook
Growing Demand for Poultry and Livestock Feed	Bullish
Rising Utilization of Starch in Food Processing Industry	Bearish
Increasing Demand as a Wheat Substitute due to Wheat Export Ban	Bullish
Increasing Food Inflation	Bearish
Commercialization of Genetic Modified Maize Crop	Bullish
Increasing demand for Coarse Cereals	Bullish

Poultry

Market Drivers	Monthly Outlook
Rapid Growth in Consumer Demand for Livestock Products	Bullish
Rising Demand for White Feather Broilers	Bullish
Increasing Broiler Chicken Price Increases Due to Higher Feed Cost	Bearish
Increasing Food and Feed Inflation	Bearish
Enhancement of Backyard Poultry Farming	Bullish
Increasing the Demand of Organic Poultry Farming	Bullish

Regards,
CLFMA OF INDIA
 111, Mittal Chamber, 11th Floor,
 Nariman Point, Mumbai- 400 021, INDIA
 Telephone: +91-22-22026103

Sourced by: IMARC Group

FAT-O-LIP LS

Rumen bypass fat alone is not enough, Milch Animals require rumen bypass phosphatidyl choline (PC) together.

Today's high yielding dairy animals requires more than rumen bypass fat to meet energy demand along with critical nutrients.

Micro- Encapsulation or Matrix Technology is superior to standard encapsulation technology to deliver PC at the intestine without getting leached in the rumen.

One of those nutrients is Phosphatidyl choline (PC), which around 112-487 mg/litre gets excreted through milk on daily basis (Artegoitia et al., 2014).

95% of choline pool in the animal body is only in the form of phosphatidyl choline - It means, in animal body dietary choline, gets converted in the form of phosphatidyl choline (PC) (Li and Vance, 2008).

Only 10 to 12 % of dietary rumen protected choline chloride gets converted in to phosphatidylcholine- Rest is waste.

PC
Essential nutrient
for
dairy animals



The information provided is to best of our knowledge.

For more details please contact Dr. Amit Sharma on 9673998176

Developed and Manufactured by



Hightech Energy Feeds (India) Pvt. Ltd.
(An ISO 9001:2015 certified company)

Marketed by



Berg+Schmidt
Functional Lipids

Berg and Schmidt (India) Pvt. Ltd.
(An ISO 9001:2015 certified company)

The synergy, plot no. 70/21, Law college road, pune - 411004.
Customer contact no: + 91 (0) 20/2545 6370, 71, 72
Email : info@berg-schmidt.co.in
Website : www.berg-schmidt.com



Prakash Foods & Feed Mills Pvt. Ltd.

Innovation sets us apart
from our competitors.

Our expertise over 30 years of experience brings you

BIO-A-PRO

FEED SUPPLEMENT FOR POULTRY

A Multi Nutrient Product offering... **Protein, Fat, Calcium, Phosphorous and Energy**



SPECIFICATIONS		BIO-A-PRO
Moisture	Max.	8.0 - 10.0%
Crude Protein	Min.	45.0%
Crude Fat	Min.	6.0 - 7.0%
Total Ash	Max.	32 - 35.0%
Crude Fibre	Max.	2.0%
Calcium	Min.	9.0 - 10.0%
Phosphorous	Min.	4.5 - 5.0%
Sand & Silica	Max.	2.5 - 3.0%
Lysine	Min.	2.0%
Methionine	Min.	0.6%
Pepsin Digestibility	Min.	85.0%
ME Value		2000 - 2200Kcal/Kg

Manufactured at our most sophisticated automatic plant at Kanchipuram (Tamil Nadu).

BIO-A-PRO is free from ***E.Coli, Clostridium & Salmonella Species***

BIO-A-PRO is free from Leather Meal or any other adulterants.

Prakash Towers, 3rd Floor, #1, Mettukuppam Main Road
Maduravoyal, Chennai 600 095.
Tel: 044-2378 1501 / 2378 1502 / 2378 1503 / 2378 1504
E-mail : contact@prakashfeeds.com
www.prakashfeeds.com

CLFMA ACTIVITY UPDATES

Representations by CLFMA:

CLFMA wrote a letter to Shri. Rajendra Ratnoo, IAS, Joint Secretary, Ministry of Commerce and Industry, Vanijya Bhavan, New Delhi on 24th January, 2023 requesting a meeting for our CLFMA member.

CLFMA wrote a letter to the Members Secretary, MAFSU, Nagpur nominating Dr. R. S. Masali as a member of the Research Council on 30th January, 2023.

On 21st February, 2023 CLFMA wrote a letter to Shri. Parshottam Rupala, Hon'ble Minister of Fisheries, AH&D, New Delhi, Dr. Sanjeev Kumar Balyan, Hon'ble Minister of State of Fisheries, AH & D, New Delhi, Shri. Rajesh Kumar Singh, IAS, Secretary AHD, New Delhi, Shri. Upamanyu Basu, Joint Secretary (Livestock Health), New Delhi, Shri. G. Kamala Vardhana Rao, IAS, New Delhi, CEO, FSSAI, Shri. G. N. Singh, Joint Secretary (Admin / Trade/GC/IC/IT), New Delhi, Shri. Jatindra Nath Swain, Secretary (Fishery), New Delhi, Shri. O. P. Chaudhary, Joint Secretary (NLM/PC), New Delhi, Ms. Varsha Joshi, Additional Secretary (CDD), New Delhi, Dr. Abhijit Mitra, Animal Husbandry Commissioner, New Delhi, requesting for an appointment to introduce CLFMA New Leadership Team 2022-2024.

On 8th March, 2023, CLFMA wrote a letter to Shri. G. N. Singh, Joint Secretary (Admin/Trade/CG/PC/IC), Department of AH&D, New Delhi thanking him for sparing his valuable time and approving the combined feed additive / supplement list and also made some additional requests for clearance of the material from the port without any hindrance, with a cc copy to Mr. Abhijit Mitra, Animal Husbandry Commissioner, New Delhi & Dr. Gagan Garg, Dy. Commissioner (Trade), New Delhi.

Also on the same day, CLFMA wrote a letter thanking Dr. Sanjeev Kumar Balyan, Hon'ble Minister of State of Fisheries, Animal Husbandry & Dairying and expressed the difficulty faced by CLFMA members regarding BIS making all the Feed Companies to register under them and also suggested to the government that making of regulation and nutritional guidelines may be entrusted to Ministry of Fisheries, Animal Husbandry & Dairying and requested the minister for exempting Animal Feed industry to be controlled by BIS, as it would not be in the interest of the

farmers. It also raised the issue of BIS formulating the feed standards for Poultry.

Meetings:

On behalf of CLFMA, Dr. Anup Kalra, CEO (ARF), Director Ayurved Green Energy Solutions, Head – Corporate Communications of Ayurved Limited was nominated for the meeting viz. Price Policy for Kharif Crops 2023-24 season, which was held on 17th January 2023 at Krishi Bhavan, New Delhi.

Dutch Delegation Ms. Gjaltema Sanne, Assistant Attaché for Health, Welfare and Sport, Mr. Marcel Floor, Health Counsellor & Ms. Priya Anil, Senior Trade and Investment Officer from Kingdom of the Netherlands visited to CLFMA Office on January 25th 2023 from 10:00 hrs. to 11:00 hrs. They had an initial meeting with our Executive Director Ms. Chandrika Venkatesh for fixing a meeting with industry stakeholders to discuss the role of feed manufacturers on ensuring feed and food safety and AMR issues. And the same was scheduled on February 2, 2022 at the CLFMA Secretariat.

The Dutch Food and Consumer Product Safety Authority – NVWA had a meeting with CLFMA on 2nd February, 2023 at 12:00 hours at CLFMA Office. NVWA had a discussion with CLFMA OF INDIA & INFAH on the topic of understanding the food value chain – the role of feed manufacturers in ensuring feed and food safety (Quality control, AMR Management). Mr. Gerard Bakker, Inspector General of NVWA & Team, Mrs. Etty de Boer, Head Political & Public Affairs, Mr. Edzart Bruinier, Senior Policy Officer, International Affairs from Dutch Foods and Consumer Product Safety Authority – NVWA and from Embassy of the Kingdom of the Netherlands – New Delhi Mr. Sritanu Chatterjee, Agriculture Advisor, Ms. Sanne Gjaltema, Assistance Attache for Health, Welfare & Sport, Mr. Bart de Jong, Consul General of NL Mumbai attended the meeting, on behalf of CLFMA Prof. Dr. A. S. Ranade, Associate Dean, Mumbai Veterinary College, CLFMA Technical Head, Mr. Suresh Deora, Hon. Secretary, CLFMA OF INDIA, Mr. Divya Kumar Gulati, Dy. Chairman, CLFMA OF INDIA, Dr. R. S. Masali, General Manager, Godrej Agrovet Ltd., Dr. Sunil Kulkarni, Head Technical Services, Huvepharma SEA (Pune) Pvt.

Ltd., Dr. Vijay Makhija, President INFAH, Associate Director, Poultry Business Unit, Intervet India Pvt. Ltd., Pune, Dr. Mahesh Gujar, Head Technical, Animal Nutrition and Health, Cargill India, Mrs. Chandrika Venkatesh, Executive Director,



On 10th February, 2023, the 6th Feed Additives List finalization Meeting was conducted at CLFMA Office and the participants for the said meeting were Dr. Ajit S. Ranade, Associate Dean, Mumbai Veterinary College, Dr. R. S. Masali, General Manager, Godrej Agrovet Ltd., CLFMA Dy. Chairman Mr. Divya Kumar Gulati and Hon. Secretary Mr. Suresh Deora.

On 24th February, 2023 CLFMA participated in the meeting organized by Food Safety and Standards Authority of India (FSSAI), FDA Bhawan, Kotla Road, New Delhi. A scheduled meeting was held under the Chairmanship of Shri. G. Kamala Vardhana Rao, Chief Executive Officer, FSSAI on 24th Feb' 2023 at 11:00am to discuss various issues relating to animal feed and feed ingredients, manufacturing units, organized and unorganized feed industry, etc. From CLFMA OF INDIA, CLFMA Chairman Mr. Suresh Deora, Dy. Chairman Mr. Divya Kumar Gulati, Dy. Chairman Mr. Sandeep Kumar Singh, Mr. Abhay Shah, Hon. Secretary, CLFMA Member Dr. Saikat Saha participated in the meeting and Mrs. Chandrika Venkatesh Participated in the virtual meeting.

CLFMA OF INDIA Met Mr. Roger D. Gilbert, Publisher and CEO at Milling and Grain and Publisher of International Aquafeed Magazines, Ex-Secretary General of the IFIF on 27th February, 2023, from CLFMA, Mr. Suresh Deora, Chairman, and Ms. Chandrika Venkatesh, Executive Director were present in the meeting.



CLFMA's Participated in the Webinar organized by BCIL and ANSI dated 31st Jan' 23

CLFMA participated in the Webinar on GM Crops on 31st January 2023 from 11:30am to 01:30pm. organized jointly by Biotech Consortium India Limited (BCIL) and Animal Nutrition Society of India (ANSI). It was a knowledge-sharing webinar on "Use of GM crops and derivatives for dairy industry." The objective was knowledge sharing on the subject with concerned stakeholders, government, research institutions and industry. The renowned speakers and panelists were Dr. K.C. Bansal, Secretary, National Academy of Agricultural Sciences, India and Former Director, ICAR,

National Bureau of Plant Genetic Resources. Dr. Amrith Kumar Tyagi, Assistant Director General (Animal Nutrition & Physiology), Indian Council of Agricultural Research. Mr. Amit Sachdev, Regional Consultant, US Grains Council, Mr. Jaison John, Team Lead India, USSEC, Dr. B. M. Bhandari, Senior Manager (Animal Nutrition), Kaira Union, Amul Dairy, Dr. S. Anandan, Principal Scientist (Animal Nutrition), ICAR-National Institute of Animal Nutrition and Physiology, Dr. V. Sridhar, Senior General Manager, NDDDB, Nagpur, Dr. Parminder Singh, Professor of Animal Sciences, Guru Angad Dev Veterinary & Animal Sciences University, Ludhiana & Dr. Vibha Ahuja, Chief General Manager, Biotech Consortium India Limited. The workshop provided an opportunity to bring together the concerned stakeholders viz. industry, scientists from crop and animal research institutions, nutritionists, etc. from the agriculture and livestock sectors. Key Topics discussed were the Growth of the dairy industry: Prospects and challenges, How GM crops can help in improved feed supply: Global and Indian Status, GM crops and derivatives: Safety and nutritional aspects, DDGS and GM raw material for the dairy sector: A protein and energy sources, Strengthening feed supply chain for a competitive dairy sector. Almost 200 participants participated in the said webinar.

CLFMA OF INDIA supported 4th Edition of India Poultry Expo 2023 at Nashik:

CLFMA OF INDIA supported 4th Edition of India Poultry Expo 2023 at Nashik, which was organized on 25th to 27th March, 2023 at Thakker Dome, Nashik. CLFMA for the first time had obliged their request and Mr. Uddhav Ahire, Chairman, Anand Agro & CLFMA Managing Committee Member represented CLFMA as Guest of Honour in their Expo. Mr. B. V. Shiv Shankar, Tejasvi Publications has expressed his special thanks to Mr. Suresh Deora, Chairman, CLFMA and his new team. More than 4000 crowd witnessed the expo.

The dignitaries present were Dr. Chandrakant Pulkundwar, Commissioner and Administration, Municipal Corporation of Nashik and Renowned Actor, Producer and Director Shri Makarand Anaspure, Mr. Sanjay Nalgirkar, President, Poultry Farmers and Breeders Association and Mr. Vasant Kumar, Ex-President, PF&BA, Dr. P. G. Pedgaonkar, General Manager, Venkateshwara Group, Mr. Uddhav Ahire, Chairman, Anand Agro and CLFMA Managing Committee Member (Guest of Honour), Mrs. Shilpi Awasthi, MD, Supreme Equipments Pvt. Ltd., and Mr. Ramesh Khatri, Chairman, Poultry Federation of India were on the dais. Overall, 66 exhibitors comprising Pharma, Equipment, Hatcheries and Feed Companies etc. took part in the expo.



Stakeholder Outreach:

CLFMA Sent a letter to Dr. D. Biswas, RO, AQCS (Animal Quarantine & Certification Services – South Region) requesting to release the imported consignment of CLFMA Member on 4th January, 2023.

CLFMA circulated an email for blocking the date for the election, CLFMA Election was held on 16th February, 2023 at Hotel Taj Bangalore-Airport from 11:00 hours onwards.

CLFMA submitted new CLFMA Constitution to Charity Commissioner Office on 16th January, 2023.

CLFMA circulated an invitation letter for campus placements 2023, ICAR-NAARM, Hyderabad circulated to all CLFMA Members on 20th January, 2023.

On 14th February, 2023, CLFMA OF INDIA circulated the additional feed Additive List to our Technical experts, Dr. Ajit S. Ranade, Associate Dean, Mumbai Veterinary College, Dr. R. S. Masali, General Manager Nutrition, Godrej Agrovet Ltd. for its review and in that connection, we had a meeting in CLFMA, after getting approval from them CLFMA will submit the additional list to GOI, soon.

CLFMA Election for the year 2022-2024:

On 16th February, 2023, CLFMA's Election was held in the Extra-Ordinary General Meeting (EGM) and the new leadership team took charge for the period 2022-2024. The outgoing Chairman Mr. Neeraj Kumar Srivastava, Managing Director, South Asia & South-East Asia, Novus International, expressed his appreciation and conveyed his best wishes to the new team led by Mr. Suresh Deora and he got elected as the new Chairman of CLFMA OF INDIA for the period 2022-2024.

Newly elected Chairman Mr. Suresh Deora, thanked Mr. Neeraj Kumar Srivastava and CLFMA and said that it is a great honor to be appointed as a chairman in a renowned association like CLFMA, as it is the single leading voice of the Animal Husbandry Industry and he promised to do his level best to help CLFMA work for the benefit of its' members and the industry at large. He said that he is thrilled to carry the great legacy of many distinguished leaders, which has served the livestock industry for more than 5 decades & his main focus will also be towards building the visibility of CLFMA, its image & reputation and working towards the betterment of the livestock industry.



CLFMA's Newly Elected Team for the year 2022-2024

Following Office Bearers' were elected for the period 2022 – 2024

- | | |
|-----------------|---|
| 1. Chairman | : Mr. Suresh Deora, S. A. Pharmachem Pvt. Ltd. |
| 2. Dy. Chairman | : Mr. Sumit Sureka, Shivshakti Agro (India) Pvt. Ltd. |

- | | |
|----------------------------|---|
| 3. Dy. Chairman | : Mr. Divya Kumar Gulati, Nurture Aqua Technology Pvt. Ltd. |
| 4. Dy. Chairman | : Mr. Naveen Pasupathy, Nanda Feeds Pvt. Ltd. |
| 5. Dy. Chairman | : Mr. Sandeep Kumar Singh, Godrej Agrovet Ltd. |
| 6. Hon. Secretary | : Mr. Abhay Shah, Spectoms Engineering Pvt. Ltd. |
| 7. Treasurer | : Mr. Nissar F. Mohammed, Coastal Exports Corporation |
| 8. Immediate Past Chairman | : Mr. Neeraj Kumar Srivastava, Novus Animal Nutrition (India) Pvt. Ltd. |

The other members of the Managing Committee 2022 - 2024 comprises of:

- | | |
|------------------------------|---------------------------------------|
| 9. Dr. Prashant Shinde | : Cargill India Pvt. Ltd. |
| 10. Mr. Anil M | : KSE Limited |
| 11. Dr. Devender Hooda | : Huvepharma SEA (Pune) Pvt. Ltd. |
| 12. Mr. R. Ramkutti | : Niswin Enterprises |
| 13. Dr. Saikat Saha | : Evonik India Pvt. Ltd. |
| 14. Mr. Ramakanth V. Akula | : The Waterbase Limited |
| 15. Mr. Vijay Bhandare | : Bhavani Agrovet Pvt. Ltd. |
| 16. Mr. Abhay Parnerkar | : Godrej Tyson Foods Ltd. |
| 17. Mr. R. Lakshmanan | : Shanthi Feeds Pvt. Ltd. |
| 18. Mr. Balaram Bhattacharya | : Indian Herbs Specialities Pvt. Ltd. |
| 19. Mr. K. Narendra Reddy | : Natural Remedies Pvt. Ltd. |
| 20. Dr. Anup Kalra | : Ayurved Limited |
| 21. Dr. Vijay Makhija | : Intervet India Pvt. Ltd. |
| 22. Mr. Jaison John | : U. S. Soybean Export Council, Inc. |



कनकधारा

पशु आहार

भाप से पका पचाने में आसान

स्वस्थ पशु, समृद्ध किसान



BIS मानक के अनुरूप

ऊर्जा एवं खनिज मिश्रण से युक्त

स्वास्थ्यवर्धक और भरोसेमंद

प्रोटीन से युक्त

कैल्शियम 1 ली. और 5 ली पैक में उपलब्ध

कनकधाम फूड्स प्राइवेट लिमिटेड

+91-9520998302 | info@kanakdhmamfoods.com | www.kanakdhmamfoods.com



innovax[®]
ND-IBD

MORE POWER TO YOU

INNOVAX[®]-ND-IBD - PUTTING YOU IN CONTROL OF WELFARE & PRODUCTIVITY

MSD Animal Health is helping to shape the future of the poultry industry through continuous innovation.

Innovations such as Innovax[®]-ND-IBD the world's first dual-construct HVT vaccine that offers 3-in-1 protection in a single injection - safeguarding your birds from infection challenges before they even leave the hatchery, without the risks of bursal atrophy or interference with infectious bronchitis vaccination and MDA levels.

To find out more please contact your local MSD Animal Health Innovator today.

ALWAYS PRODUCING MORE

Visit to Krishi Bhavan, New Delhi on March 1,2023 & March 2,2023 by CLFMA Delegation - CLFMA Chairman Mr. Suresh Deora and Dy. Chairman Mr. Divya Kumar Gulati.

CLFMA planned for the visit of newly elected team to Krishi Bhavan but some of the Office bearers were not available. Hence Chairman Mr. Suresh Deora (Myself) and Mr. Divya Kumar Gulati visited Krishi Bhavan to build a good rapport with Government of India and during the visit Livestock Survey Report was presented to the dignitaries viz, Shri. Parshottam Rupala, Hon. Minister of Fisheries, Animal Husbandry & Dairying, GOI., Dr. Sanjeev Kumar Balyan, Hon'ble Minister of State of Fisheries, Animal Husbandry & Dairying, GOI., Shri.Rajesh Kumar Singh, IAS, Secretary AHD, Shri. Jatindra Nath Swain, IAS, Secretary (Fisheries), Shri. O. P. Chaudhary, Joint Secretary (NLM/PC) and Shri. G. N. Singh, Joint Secretary (Admin/Trade/GC/IC/IT).



CLFMA extended help to GOI:

On 5th March, 2023 PMO Office, New Delhi requested for the information on the price trends of Feed (Concentrates) during last three months and projections for summer months, CLFMA satisfactorily provided the same on top priority basis.

CLFMA at VIV Asia 2023, Bangkok:

CLFMA Dy. Chairman Mr. Divya Kumar Gulati met with Mr. Nicolo Cinotti, Secretary General, International Poultry Council at VIV Asia 2023 at Bangkok on 8th March, 2023.



Visit to Krishi Bhavan, New Delhi on March 28, 2023 & March 29, 2023, by CLFMA Delegation - CLFMA Chairman Mr. Suresh Deora and Dy. Chairman Mr. Divya Kumar Gulati.

On 28th March, 2023 Chairman of CLFMA Mr. Suresh Deora and Dy. Chairman of CLFMA Mr. Divya Kumar Gulati met Shri. Jatindra Nath Swain, Secretary (Fishery), New Delhi, Shri. O. P. Chaudhary, Joint Secretary (NLM/PC), New Delhi, Dr. J. Balaji, I.A.S., Joint Secretary (Marine Fisheries), Shri. G. Kamala Vardhana Rao, IAS, CEO, FSSAI, New Delhi, Shri. Hans Raj Khanna, Joint Commissioner (NLM) to discuss issues related to Livestock Sector.

On 29th March, 2023 CLFMA Chairman Mr. Suresh Deora

(Myself) and Mr. Divya Kumar Gulati met Dr. L. Murugan, Hon. Minister of State Fisheries, Government of India, and the Livestock Survey Report was presented to him.



CLFMA supported Event

CLFMA OF INDIA has tied up for a discounted stall rates in the Expos viz North East Livestock – Aqua-Poultry (NELAP) Expo 2023, which is scheduled from 18th to 20th April, 2023 at Maniram Dewan Trade Centre, Guwahati, Assam & also in the Livestock Expo, which is scheduled from 3rd to 5th August 2023 at India Expo Centre, Greater Noida, UP and the details of the same has been circulated to all members in regular intervals to avail the discounts on booking of stalls and sponsorships on producing the CLFMA ID to the organizers.

Fisheries Production up from 61 Lakh Tonnes to 121 Lakh Tonnes: Rupala

The production in fisheries sector that was 61 lakh tonnes in 2014 has gone up to 121 lakh tonnes now, while the value of fishery department exports has gone up to Rs 57,000 crore, said Union Minister of Fisheries, Animal Husbandry and Dairying industry Purshottam Rupala in Surat on Sunday. The minister was speaking while launching the third phase of Sagar Parikarma from Hazira port that will travel through the coastal belt of Maharashtra.

“The purpose of this program is to understand the issues of the fishermen and try to address to those. After Narendra Modi became the prime minister in 2014, a separate ministry for fisheries was made and Pradhan Mantri Matsya Sampada scheme of Rs 20,000 crore was launched,” he said. The minister added that Rs 7,500 crore was allotted for infrastructure development work on coastal area and Rs. 5,000 crore for blue revolution.

“A total of Rs 32,000 crore was allotted separately for Fisheries ministry. This year, an additional Rs 6,000 crore was added to the existing budget,” he added. Adding that Sagar Parikrama would focus on the sustainable balance between the utilization of marine fisheries resources for food security and livelihoods of coastal fisher communities as well as protection of marine ecosystems.

The second phase of the program was held from September 23 to 25, 2022. To a question about white spot disease on shrimps, Rupala said, “Our teams are making all effort to create awareness among shrimp pond owners on taking precautions.” About Indian fishermen being jailed in neighboring countries, Rupala said, “It will be sorted out in coordination with the ministry of external affairs. We are also planning to develop a device that will alert the fishermen about the international borders in the deep sea.”

India Sets \$14 Billion Marine Product Export Target by 2025: Anupriya Patel

India has set a target of achieving \$14 billion in exports of marine products by 2025 and efforts are being made to achieve the target, said Anupriya Patel, Union Minister of State for Commerce and Industry said. “The seafood export

sector is showing a positive trend during this year as well, showing a growth of 3 per cent”, the Minister said at the inaugural function of the 23rd India International Seafood Show 2023 at Kolkata. Last year, the Indian seafood industry exported 1.36 million tonnes of seafood and achieved a record-high income of \$7.76 billion. It has become one of the major seafood baskets of the world, particularly for shrimp, the Minister said. Pointing out that India is among the top 5 seafood exporting nations supplying quality seafood to over 100 countries, she said “we are the third largest fish producer, second largest aquaculture producer and the fourth largest seafood exporter of the world”. About 17 per cent of India’s agricultural exports are fish and fishery products. During 2021-22, shrimp production in India crossed 10 lakh tonnes and India occupied second in shrimp production globally, she added. The Marine Products Export Development Authority will hold a conference on the harmonization of regulations for seafood among G-20 countries in Delhi in the second half of this year as part of the series of events organized in connection with the G20 Presidency of India, she said. A “Fish Food Festival” will be organized in New Delhi, inviting Ambassadors from the top 20 markets of marine products, including G20 countries in the current year. MPEDA will also hold a shrimp conference to bring together stakeholders in the shrimp value chain to make various stakeholders in India’s seafood industry aware of trade regulations and export prospects, she said. The Union Budget has announced duty concessions on the import of shrimp/fish feed ingredients by slashing down from 15 per cent to five per cent for fish meal/krill meal and vitamin premixes and for fish lipid oil. This would have a remarkable impact on the earnings of aqua farmers, in terms of savings on the total farming cost, she said.

J-K Govt Approves Rs 176 Cr Project to Boost Fish Production And to Generate Employment

The Jammu and Kashmir administration has approved Rs. 176 crore project to boost fish production in the Union territory, an official statement said. “It will also create job opportunities and boost the local economy, which will contribute to the overall development of the region,” it said. Additional Chief Secretary (ACS), Agriculture Production Department, Atal Dulloo, who leads the Agriculture Production Department of J&K, said that the aim of the project is to promote sustainable development of fisheries for nutritional security, employment generation, and economic prosperity in the UT of J&K. The official statement said: “The

project involves importing genetically improved fish seed, upgrading existing hatcheries and fish rearing units, introducing species diversity in aquaculture through R&D, and commercializing trout and carp fish production using modern technologies such as RAS and Biofloc". "The program aims to increase fish production, productivity, and growth rate, as well as to strengthen social security and welfare measures for the fishing community, facilitate improved post-harvest practices and value addition, and create market linkages," he added. "One of the prime requisites for successful aquaculture is the availability of good quality fish seed. The Technical Program under the project includes importing genetically improved varieties of fish seed to ensure the overall success of fish farming practices. Quality fish seed determines the health, size, growth rate, disease resistance, and other physical and physiological characteristics of the fish, which in turn affect the overall fish production", Dulloo said. The ACS Dulloo further remarked that in addition to importing genetically improved fish seed, the Technical Program also aims to establish new hatchery units and upgrade existing ones on modern scientific lines. "This will improve the quality and quantity of fish seed available for fish farming and enable the production of a more diverse range of aquaculture species," he added.

Allocation in Budget FY 2023-24 for Department of Fisheries Marks an Overall Increase of 38.45% Over The Budget of FY 2022-23

While presenting the budget for FY 2023-24, Union Finance Minister, Smt. Nirmala Sitharaman in her speech has announced allocation of an amount of INR 2248.77 crore as against the corresponding figure of INR 1,624.18 crore during 2022-23 and INR 1,360 crore during 2021-22 for the Department of Fisheries. It marks an overall increase of 38.45% over the budget of FY 2022-23 from the last one and is one of the highest ever annual budgetary support for the Department. Further, she has announced a new sub-scheme named Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY): Central Sector Sub-scheme under PMMSY with targeted investment of INR 6,000 crore with the objective to enhance further the earnings and incomes of fishermen, fish vendors and micro & small enterprises engaged in fisheries sector. PM-MKSSY envisages focused intervention to bring about formalization of the fisheries sector and this includes

digital inclusion, facilitating access to institutional finance for capital investment and working capital, incentives to bring about system and institutions to reduce risk in aquaculture and fisheries incentivizing microenterprises operating in fisheries and aquaculture sector to work on value-chain efficiencies, incentivizing micro and small enterprises to establish supply chains for delivery of safe fish products to consumers, thereby expanding the domestic market and incentives for creation and maintenance of jobs for women in the sector.

The budget speech has also laid stressed on creation of primary cooperative societies including fisheries cooperatives at panchayat level. Formation of co-operative societies at grass root level will formalize the sector and will empower fishers and fish farmers to carry out fish production and its post-harvest activities in an organized manner. With Rs 900 crore allocation for the Ministry of Cooperation for development of cooperatives, enhanced limits for loans, TDS limits and cash deposits and steps to be taken for building the national co-operative database are expected to make operations and financing easier for co-operatives in the sector and help the sector to grow faster. The above, in addition to the earlier announcement on, establishment of National Co-operative Export Society, National Co-operative Society for Organic Products and National Level Multi-State Seed Co-operative Society are expected to support the fisheries in the areas of seed and marketing. The credit target for agriculture and allied sector has been announced to be increased to 20 lakh crore with focus on animal husbandry, dairy and fisheries. This will substantially improve flow of institutional finance for fisheries sector. Further the announcement to reduce import duty on certain inputs required for shrimp feed is expected to lower the cost of imports and the cost of production and as a result will boost and promote aquaculture exports.

Kerala Budget: Fisheries Sector Gets Rs 321.31 Crore

Fishermen community in the state is expected to get the much-anticipated shot in the arm, with the finance minister setting apart Rs 321.31 crore for the fisheries sector in the budget. The minister has earmarked Rs 61.1 crore for 'Marine Fisheries' schemes, and Rs 3.5 crore has been allocated for various activities of 'Samudra' project, for developing infrastructure facilities in the fisheries sector. A new scheme with an outlay of Rs 10 crore was also announced to modernize fishing fleets. It is intended to provide a subsidy of 60%, up to

Complete Solution to Minimize the Risk of Mycotoxins

TOXIDEX™

Antimycotoxic Agent with Triple Action

Neutralize Masked Toxins

MDC

Optimum CEC Value

Does not
Binds
Nutrients

Strong Binding Efficacy

Higher
Surface Area

Highly Stable

Acidic &
Basic pH

Superior Dipolar Phyllosilicates

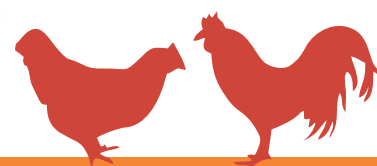
Sa9
V12 & V14

Binds Toxins

Chemical &
Endotoxin



Imported from
Dex ibérica (Spain)



For Further Information Please Contact

VETOQUINOL INDIA ANIMAL HEALTH PRIVATE LIMITED

5th & 6th Floor | Hamilton Building | B – Wing | Hiranandani Estate | Ghodbunder Road | Thane – 400 607 | Maharashtra

Email : consumer.services.india@vetoquinol.com | Website : www.vetoquinol.in

Customer Care : +91-22-61322609

High Protein Poultry Feed, Enhances Poultry Life!

Allana®
...since 1865

Protein Content: **45%** & Above.
Commercially Sterile Poultry Feed Supplement



Awarded

By Many Certified Bodies



Food Safety
System
DNV-GL HACCP



RVA is a
signatory
to the IAF MLA



OHSAS
18001:2007



CAPEXIL
(Chemicals & Allied Products
Export Promotion Council)

OUR RENDERING PLANTS

Integrated with each of our abattoirs and meat processing complexes at seven locations across the country manufacture high quality commercially Sterile Poultry Feed Supplement, Blood Meal and Technical Animal Fat utilizing fresh and chilled raw materials, derived from inspected healthy livestock fit for human consumption. These modern sophisticated rendering plants have been designed and supplied on a turn key basis by leading International rendering plant manufacturers.

OUR PRODUCTS FOR POULTRY FEEDS

The low temperature rendering, followed by high temperature short time processing fully ensures:

- Commercial sterility in Poultry Feed Supplement, Blood Meal and Technical Animal Fat.
- Retains the nutritive value of native protein intact in the meal

- Ensures high stability against oxidation of Technical Animal Fat, low FFA and very low peroxide value.
- More acceptable light colour in fat.

These unique qualities of our feed ingredients make them very safe and indispensable ingredients in the manufacture of high quality compound feeds for poultry. With the use of our feed ingredients, the birds show improved growth rate.

Uniform drying at high temperatures helps to maintain low moisture in Poultry Feed Supplement which not only ensures the commercial sterility and poultry pathogens control but also eliminates the contamination risk of dangerous Mycotoxins / Aflatoxins of fungal origin.

QUALITY AND SAFETY MANAGEMENT SYSTEMS

Like ISO 9001 = FSSC 22000 and HACCP are stringently applied, ensuring that we maintain high standards consistently to enable us export our Poultry Feed Supplement to various countries in the world. Hygienic conditions are strictly monitored in every section of the plant.

We have our in-house, fully equipped laboratories for testing the raw materials, in-process products and finished products. All chemical and microbiological tests are performed at different stages of processing. These regular tests ensure consistent compliance with each and every aspect of the product specification.

The total traceability of the product is ensured throughout processing and storage by proper identification and records.

Allana Shakti™

Commercially Sterile
Poultry Feed Supplement



Allana Shakti Gold™

High Quality Technical Animal Fat
(Buffalo Tallow)

Allana®

ALLANASONS PRIVATE LIMITED

Corporate Office:

Allana Centre, 113 -115, M.G. Road, Abdul Razak Allana Marg, Fort, Mumbai - 400 001, India
Tel : (+ 91-22) 6656 9000 / 2262 8000 Fax : (+ 91-22) 2269 5700 / 2269 5701

E-mail : pfs@allana.com • Website : www.allana.com



Allana - Since 1865

Defining global standards

NOW PURCHASE **Allana** FINEST RANGE OF
BY - PRODUCTS
THROUGH ALLANA MOBILE APPLICATION



DOWNLOAD APPLICATION
ALLANA BY-PRODUCTS

AVAILABLE AT



a maximum of Rs 10 lakh. In the budget, the government has also declared its intention to promote aquaculture and mariculture. An amount of Rs 82.11 crore has been earmarked for the inland fisheries sector, and Rs 67.50 crore has been allocated with an aim to double the current aquaculture production to 50,000 tonnes. 's seafood industry, which is expecting a huge support from the Centre for the promotion of the industry, will now join shrimp farming in a big way as Rs 5.88 crore has been set apart for innovative aquaculture activities and the expansion of Shrimp farming in Kaipadu, Kole and Pokkali fields.

J&K Govt Plans to Strengthen Poultry Sector; Boost Annual Output from Rs 709 crore to Rs 1,982

The Jammu and Kashmir government will implement a variety of measures as part of its "sustainable development project" to boost the Union Territory's poultry sector and increase annual output from Rs 709 crore to Rs 1,982 crore. Every year, Jammu and Kashmir spends approximately Rs 1,200 crore on imports of poultry-related items. One of the 29 projects approved by the Jammu and Kashmir administration is a roadmap for poultry development in the state. A committee recommended these projects for the holistic development of agriculture and allied sectors worth over Rs 5,000 crore. "Every year the Union Territory experiences a flight of capital on account of poultry imports to the tune of Rs 1,273 crore. Table eggs account for Rs 473 crore, day-old chicks for Rs 110 crore, poultry feed for Rs 300 crore, and broiler birds for Rs 390 crore," according to Atal Dulloo, additional chief secretary, agricultural production department. He believes that this is an opportunity to establish local businesses and create jobs for educated youth. "Over the next five years, this project will create 420 enterprises and 4,250 direct jobs," Dulloo added. The agriculture production department has approved a "roadmap for poultry development in J&K" under its mission for holistic development of agriculture and allied sectors in the Union Territory, he said, to put the poultry sector on the path of sustainability and self-reliance. "The new interventions under the roadmap will increase J&K's poultry sector's gross output from Rs 709 crore to Rs 1,982 crore per year, ensuring that the poultry industry is well-positioned for continued growth and development in the coming years,"

Dulloo said. According to officials, the Union Territory imports 440 lakh day-old chicks worth Rs 110 crore every year. To address this, 125 parent breeding farms (each with a 3,000-parent capacity), hatcheries, and in-house feed manufacturing plants will be established over a five-year period, with a production capacity of 4 lakh day-old chicks. "The project encompasses all three verticals in the poultry industry, including producing day-old broiler chicken to feed the broiler industry, establishing layer farms in intensive and free-range mode to meet egg demand, and boosting quality feed manufacture through the establishment of feed processing units," Dr Azmat Alam Khan, Professor in Poultry Sciences, explained. Similarly, Jammu and Kashmir spends Rs 473 crore per year on table egg imports. These eggs are imported from all over the world and arrive in J&K within 15-30 days of being laid, he added. The project will establish 200-layer farms, each with a 10,000-bird capacity, to produce 60 cr eggs over a 5-year period, according to officials.

Bengal Aims to be Self-Sufficient in Egg Production by 2023-End: Minister

The West Bengal government intends to become self-sufficient in egg production by December 2023, Animal Resources Development Department Minister Swapan Debnath said on Thursday. The government is ready to offer more support to the industry to achieve the milestone, he said. However, industry experts believe this assertion is too optimistic. "We are self-reliant in meat production as it is 135 per cent of our demand. We are exporting our surplus meat. We have set a target to become self-reliant in egg production by December 2023 and asked the industry to ramp up production," Debnath said. Currently, the state produces 1,203 crore eggs, and the shortfall is 237 crore eggs, the minister said at the inauguration of the Kolkata International Poultry Fair. West Bengal Poultry Federation (WBPF) general secretary Madan Mohan Maity said they are working towards the goal set by the government. "Projects totaling 12 lakh birds layer poultry farming (layer poultry farming is meant for eggs) are underway in the current and next fiscal years and once commercial production begins from these new farms, the state will be able to meet its own egg demand and would not have to import from South India," Maity said. He said the poultry industry has generated employment of 30 lakh and the goal is to increase this to 50 lakh. The investment in the poultry industry of the state is Rs 6,500 crore, he said

Assam will be Self-sufficient in Livestock and Poultry Farming in 5 Years: Atul Bora

The three-day-long Regional Livestock and Poultry Show, 2023, started on Wednesday at the College of Veterinary Science Playground, Khanapara. It was inaugurated by Atul Bora, Minister of Agriculture, Animal Husbandry, and Veterinary. In his speech, he spoke about how the show will help farmers. He said the youth shouldn't incline themselves only towards government jobs but also show interest in livestock and poultry farming, because if done scientifically, they can become self-sufficient.

He mentioned that the Assam government has many schemes that help farmers, so youths can benefit from these schemes as well. He also spoke about the fact that the Assam government always encourages the young generation and that within the next five years, Assam will become self-sufficient in livestock and poultry farming. In this meeting, Manoj Saikia, Chairman of the Assam Livestock and Poultry Corporation, was also present.

He mentioned how Assam has made great strides in poultry production, to the point where it can export meat to other states. In today's inauguration program, Assam Agricultural University Vice Chancellor Dr. Bidyut Chandan Deka, Animal Husbandry and Veterinary Department Principal Secretary Manish Thakur, Secretary Abhijit Baruah, Director of Animal Husbandry and Veterinary Indira Kalita, and many others were present. After the inauguration ceremony, the exhibition stalls were opened by Minister Atul Bora.

The exhibition includes a total of 200 stalls where various livestock and poultry are displayed for commercial purposes. The show will be open until February 17, and during this time there will be various workshops arranged that will have discussions about livestock and poultry farming.

Domestic Poultry Industry to Grow 8-10% in 2023-24, Finds a Report

The domestic poultry industry is expected to grow 8-10 per cent in 2023-24, driven by volumes and realisations following stable demand and higher penetration of processed chicken as well as value-added products, a report said on Friday. However, earnings are expected to be volatile owing to fluctuations in the raw material prices particularly maize and limited ability of players to fully pass on cost increases, it said.

In the report, Icra said it expects the domestic poultry industry's revenues to grow at a steady pace of 8-10 per cent in FY24 due to growth in both volumes and realisations. In addition to stable demand, the revenues will be supported by increased penetration of processed chicken and value-added products, which are growing consistently, it added. According to the report, maize prices have grown significantly by 32 per cent on an annual basis in the first nine months of FY23. This was due to the growing global demand for Indian maize following the Russia-Ukraine conflict, which has subsequently resulted in an increase in the average feed price.

Earlier, the rising soybean prices had been putting pressure on feed costs, which have moderated in the current fiscal, the report said. Icra said it expects poultry companies to invest towards forward integration in the medium-term, that is, towards setting up processing plants to enable shift towards higher margin value-added products. The recent widespread global bird flu outbreaks are a reason for alarm and remain a significant vulnerability for the Indian chicken business, it said. Although there are now only a few isolated instances in India, the report said the demand could be negatively impacted in the event of a widespread outbreak, leading to substantially lower realisations.

“Feeding Strategies to Economise Cost of Production And to Boost Productivity in Dairy Animals”

Brishketu Kumar*, Movaliya J.K, Thakur K S Rao, Ishu Kumari and Dinesh Kumar

INTRODUCTION

Commercial dairy farming provides important source of income to farmers and dairy entrepreneurs. Traditionally dairy farming has been an important means of generating supplemental income and employment for Agriculture farming community particularly those pertaining to the small and marginal categories. But in the recent past dairy farming as a viable commercial enterprise has become increasingly popular among farming community having an eye on maintaining high yielding dairy animals and is being looked upon as a potent means of diversification in agriculture. Besides producing milk and/or draft power, the dairy animals are also the good source of farmyard manure, which is a good source of organic matter for providing soil fertility.

An efficient dairy animal is the result of better breeding, but its productivity depends largely upon the feed and care given to it. Feed is the largest input into commercial milk production and accounts for over half of its total cost.

Feeding is one of the most important factors affecting the profitability of a dairy enterprise. Therefore, the economics of feeding is a major concern for dairy farmers' decision making. Feed accounts around 60-80% of the variable costs of milk production. The major nutrients to be supplied in a feeding program include energy, protein, minerals and. Carbohydrates are the major source of energy in dairy rations. Carbohydrates are supplied as forages, non-legume cereal grains and their milling by-products. Protein is included in the dairy concentrate mix as soybean cake, mustard oil cake and sesame oil cake and meat and bone meal. Minerals and vitamins are incorporated as pre-mixes. There are several possibilities for utilizing non-conventional feeds in solving nutritional problems. The most common is least-cost ration optimization based on linear programming which has been widely used in modelling the least-cost ration.

Economical production of milk, however, depends largely upon three main factors-the efficiency of an animal, its nutrition, and management. Its productivity, however, depends upon the adequate inputs in terms of feed and care.

Nutritional Requirements of Dairy Cattle

During lactation, dairy cows have very high nutritional requirements relative to most other species. Meeting these requirements, especially for energy and protein, is challenging. Diets must have sufficient nutrient concentrations to support production and metabolic health, while also supporting rumen health and the efficiency of fermentative digestion.

Dry Matter Intake

Under nearly all practical management conditions, dairy cows and growing dairy heifers are fed ad lib. Thus, voluntary feed intake is the major limitation to nutrient supply in dairy cattle. Feed intake is usually characterized as dry matter intake (DMI) to compare diets of variable moisture concentrations. DMI is affected by both animal and feed factors. Body size, milk production, and stage of lactation or gestation are the major animal factors. DMI for lactating cow ranges in between 2-3 percent of body weight while for dry cows it is 1.5 percent. After calving, DMI increases as milk production increases; Management and nutritional strategies should be designed to maximize DMI through the period of late gestation and early lactation. Monitoring DMI, when possible, is a useful tool in diagnosing nutritional problems in diets of dairy cows.

Energy

Ruminants need a daily supply of all nutrients required for maintenance and production: milk, meat, growth and pregnancy. Quantitatively any type of nutrient can limit performance levels, but the most likely to be in short supply are energy and protein; this is especially true for high and average yielding cows. Both energy and protein must be considered.

Protein

The digestible crude protein is widely used to evaluate protein requirements, and it corresponds to the crude protein that remains after losses in the faeces. However, a new system has been introduced which takes into account the degradability of the protein in the ration during digestion.

It is a better system to calculate requirement levels, especially for high-yielding cows which have been shown to benefit from protein that escape microbial degradation in the rumen and is absorbed as amino-acids in the small intestine. Following this approach crude protein can be split into Rumen Degradable Nitrogen (RDN) and Undegraded Dietary Nitrogen (UDN). Fish meal is for example considered as a good source of UDN.

Water

The availability of high-quality water for ad lib consumption is critical. Insufficient water intake leads immediately to reduce feed intake and milk production. Water requirements of dairy cows are related to milk production, DMI, ration dry matter concentration, salt or sodium intake, and ambient temperature. Poor water quality may result in reduce water consumption, with resultant decreases in feed consumption and milk production.

Minerals and Vitamins

Minerals are inorganic elements needed for growth and maintenance of bone, osmotic balance, muscle and nerve function, body enzymes, hormones and body cells. Feeding large amounts of some minerals can reduce the absorption of other minerals. Macro minerals are needed in higher amounts (grams). They include: calcium, phosphorus, sodium, chlorine, potassium, magnesium, and sulphur. Decreasing Dietary Cation-Anion Difference (DCAD) in the pre-fresh diet can reduce the incidence of milk fever. Increasing DCAD in the lactating cow diet can reduce metabolic acidosis. Trace minerals are needed in smaller amounts (milligrams or micrograms). They include: iodine, iron, copper, cobalt, manganese, zinc, selenium, and molybdenum. Similarly vitamin B-complex along with Vitamin A, D, E and K is needed for normal physiological functions and productions.

Strategies to economise cost of production in dairy animals:

1. Formulation of Least Cost Ration

It is the ration containing all essential nutrients which are required to meet requirements of animal (growth, maintenance, production, reproduction, work, etc.) without affecting quality and with least cost. A least cost ration incorporates all the available feed stuffs having good nutritive value and available at reasonably low cost. Therefore it may be defined as an economic ration for dairy cow which provides nutrients in balanced proportion with lowest possible cost.

The main aim to formulate least cost ration is to minimize the cost of ration without affecting the nutrient requirements of cow and productivity.

Advantages:

1. Incorporation of non-conventional feed stuffs is easy.
2. The speed and accuracy of the linear programming by computer saves time, labour and fulfils requirements of nutrients.
3. Inclusion of feed ingredients with the flexibility of program as per availability and quality is made speedily possible.
4. Gives more productive efficiency with least cost.
5. Increases profitability of the dairy farm.
6. Even the poor farmer can afford to make the use of it.

2. Formulation of Total Mixed Ration

The term total mixed ration may be defined as, "the practice of weighing and blending all feedstuffs into a complete ration which provides adequate nourishment to meet the needs of dairy cows." Each bite consumed contains the required level of nutrients (energy, protein, minerals and vitamins) needed by the cow.

Normally dairy animals are offered dry roughages, green roughages, cattle feed, grains, cakes, brans, etc. and they are offered separately or only one or two items are mixed together. When all feed items offered to animals are mixed together and offered to animal it is called "Total Mixed Ration". In this dry and green roughages needs to be chopped first and then mixed with concentrate(s) to make TMR. TMR is wholesome and complete feed for the dairy animals. TMR should be given three to four times a day.

Advantages

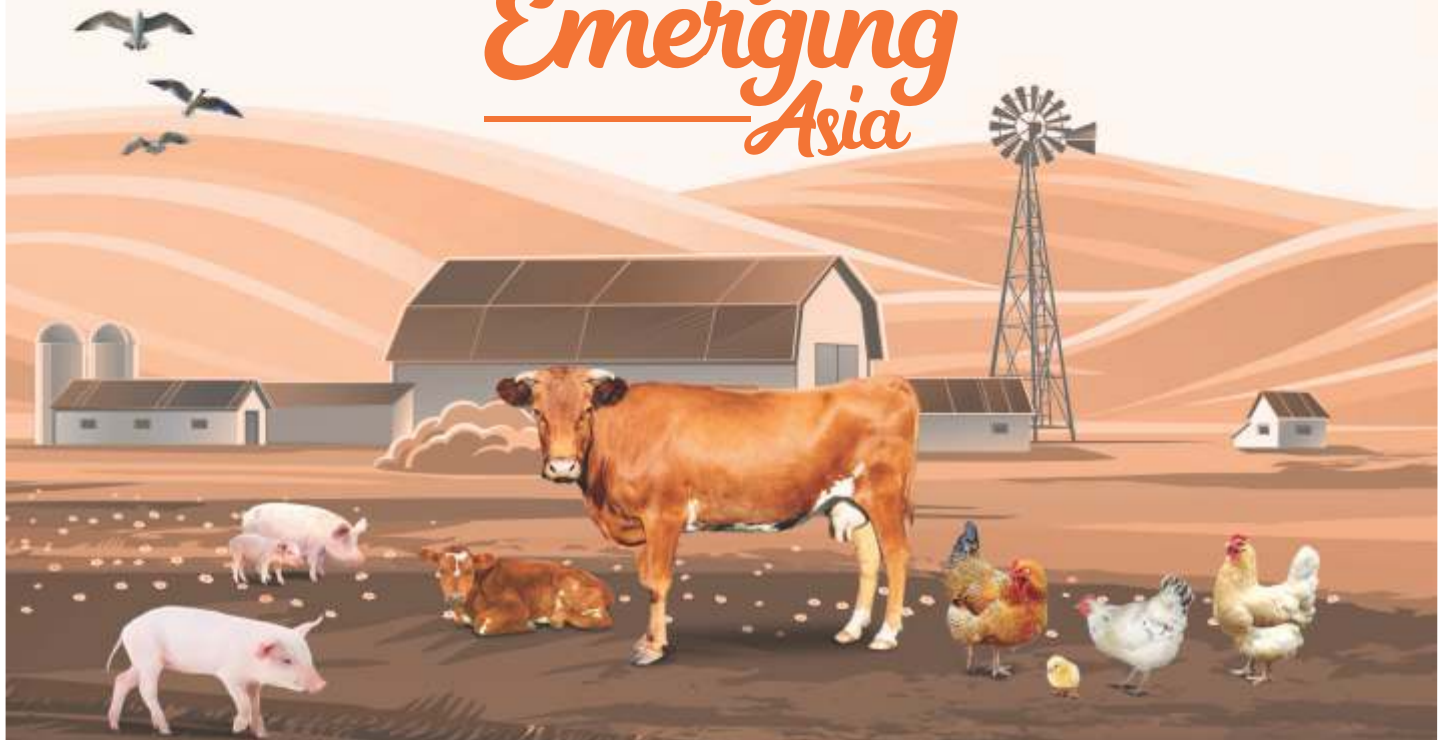
- The dairy farmer has more control over the feeding program.
- All forages, grains, protein supplements, minerals and vitamins are thoroughly mixed. Therefore, the cow can do very little sorting for individual ration ingredients.
- Completely blended feeds, coupled with grouping the cows, permits greater flexibility in feeding exact amounts of nutrients (energy, protein, etc.) to more accurately feed cows for their particular stage of lactation and level of milkyield.

3. Use of Unconventional Feeds:

Increase in livestock and human population and decrease in land under cultivation has resulted in acute shortage of feeds and fodder for livestock which further increases due to natural calamities like droughts and flood. The feeds which are traditionally not used for feeding animals are called unconventional feeds. Their use in livestock ration is increasing day by day due to shortage of animal feeds. The main source of such feeds is agricultural and forest by-products. Recent studies indicated that quite a large number



Feeding Emerging Asia



AN INDONESIAN COMPANY THAT GREW TO BECOME AN ASIAN AGRO-INDUSTRIAL POWERHOUSE

Japfa was established in 1975 with the objective of feeding emerging Asia with the healthiest of animal protein products. Today, the company is a fully integrated animal protein player, with operations ranging from animal feed production and live stock farming to branded consumer products in China, Indonesia, Myanmar, Vietnam, India and Bangladesh. Animal protein operations across: **POULTRY | AQUACULTURE | DAIRY | SWINE**

JAPFA INDIA, A FULLY INTEGRATED POULTRY COMPANY AND A LEADER IN POULTRY FEED SINCE 1995

Over the last 24 years, Japfa India has transformed the poultry feed industry in the country with the launch of new products, introduction of state-of-the-art technology and creation of revolutionary concepts. Japfa India is now poised for aggressive expansion into poultry farming and consumer products business. Every action of Japfa India is aligned with the brand's philosophy of **Make good. Always.**

JAPFA INDIA'S OFFERINGS:

Poultry Feed | Broiler DOC | Broiler Contract Farming | Broiler Bird

Website: www.japfaindia.com | Contact No.: 020 30537800/810



Driving Growth in Animal Nutrition

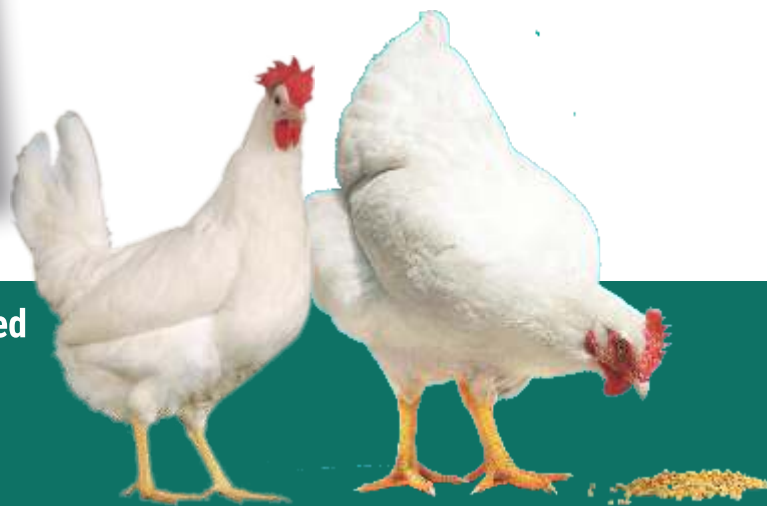


Nutrition for everyone, everyday, everywhere.

We are India's one of the largest commercial animal feed manufacturer. With our state-of-the art manufacturing units, pan India, we produce quality feed with scientific acumen. We believe that quality of food (animal protein) begins with quality of feed. **Our various feeds offer best in class solution at affordable prices for sustainable animal farming.**



Our Speciality Products include De-Oiled Rice Bran, Cotton DOC and Soya DOC



Noveltech Feeds Private Limited

Corp Office: Trendz Hub, H. No. 1-89/A/8,
Plot No.8, 3-5 Floors, Gafoor Nagar, Madhapur,
Hyderabad – 500 081 Telangana
Ph: 040-30903600

of agricultural by-products and industrial waste materials could be used for livestock feeding.

Unconventional feeds are described under the following categories:

- Energy sources viz; Vilayati babul pods, Apple waste, By-products of tapioca, Cocoa pods, Coconut pith, Kusum cake, Mango seed kernel, Rain tree pods and Tamarind seed powder.
- Protein sources viz; Ambadi cake, Corn gluten meal, Corn steep liquor, Dhaincha seeds, Guar meal, Isabgol gola and Isabgol lali, Jowar cake and gluten, Niger seed cake, Rubber seed cake, Subabul seeds and Sun hemp seeds.
- Miscellaneous unconventional feeds viz; Azolla, Babul pods, seeds and babul seed chuni, Banana root bulbs, Citrus by-products, Jackfruit waste, Palm male tree, Potato waste, Seaweed meal, Sugarcane bagasse, Sugarcane tops, Tea waste, Tomato waste.

4. Use of Compound Cattle Feeds:

Compound cattle feed is a mixture of various concentrate feed ingredients in suitable proportion. Commonly used ingredients in compound cattle feed include grains, brans, protein meals/cakes, chunnies, agro-industrial by-products, minerals and vitamins. Compound cattle feed is an economical source of concentrate supplements and it could be in the form of mash, pellets, crumbles, cubes, etc.

Compound cattle feed is palatable and good source of nutrients for growing, adult, dry, milk producing and pregnant animals. Through regular use of compound cattle feed in prescribed quantity along with basal diet, cost of milk production from dairy animals can be optimised and net profitability can be increased.

ASSISTANT PROFESSOR, DEPARTMENT OF ANIMAL SCIENCE,
COLLEGE OF AGRICULTURE, NAU, BHARUCH

ADVERTISERS INDEX

Advanced Bio-Ago Tech Limited.....	9
Allanasons Private Limited	38
Avanti Feeds Limited	3
Avitech Nutrition Pvt. Ltd.	60
Berg and Schmidt India Pvt. Ltd.	25
Blueline Foods India Pvt. Ltd.	49
Camlin Fine Sciences Limited.....	15
Ceva Polchem Private Limited	59
DSM Nutritional Products India Pvt. Ltd.....	4
Evonik India Pvt. Ltd.	54
Godrej Agrovet Limited	68
Indian Herbs Specialities Pvt. Ltd.	50
Intervet India Pvt. Ltd.....	32

Japfa Comfeed India Pvt. Ltd.	43
Kanakdham Foods Pvt. Ltd.	31
Kemin Industries South Asia Pvt. Ltd.	19
Neospark Drugs & Chemicals Pvt. Ltd.	20
Noveltech Feeds Pvt. Ltd.	44
Novus Animal Nutrition (India) Pvt. Ltd.	66
Nutreco	67
Prakash Foods & Feed Mills Pvt. Ltd.....	26
Sapience Agribusiness Consulting LLP	10
SNS Feed Equipments Pvt. Ltd.	65
The Waterbase Limited	2
Vetoquinol India Animal Health Pvt. Ltd.....	37
Virbac Animal Health India Private Limited.....	53
Zenex Animal Health India Private Ltd.	16

Dairy Farm Management for Increasing Efficiency of Production

Dr Rajinder Singh

Feeding management

Feed is the costliest production input and is most limiting in dairy livestock production with small and marginal farmers and landless labourers who constitute 70% of the dairy livestock keepers of rural and peri urban area. Further the availability of cultivated fodder/ greens and protein rich feeds (oilcakes) is limited whereas dry fodder is available in abundance but with poor quality (nutrition value) and digestibility. Large number of techniques are available to improve the nutritional value of low quality fodder (low nutritional value with large quantity of ligno cellulose) and affect both intake and digestibility. Physical, chemical and microbiological treatments of crop residues and use of bypass energy and protein can make ruminant livestock production more efficient. This way the oil cakes and low preferred protein gets protected from rumen degradation.

Feeding economical and providing balanced ration to all categories of dairy animals is required for profitability, production of milk and a more effective reproductive cycle. As a thumb rule the cow is to be fed one tenth of its body weight of green fodders along with concentrate mixture. The dry matter intake should be at the rate of 2-3 % of body weight and one third of the dry matter should be met from concentrate feeding and remaining 2/3rd dry matter to be met from quality green and dry fodders.

One kg extra concentrate ration should be fed to heifers/ cows during last 2-3 months before calving.

Feed one kg additional concentrate ration for every 2.5 kg milk produced in cows and every 2 kg of milk produced in buffaloes (cows and buffaloes which are lactating more than 5 kg milk per day).

Feeding of fodders and concentrate should be in the ratio of 70:30 of total feed. It is advised to feed additional energy food in form of cereals and protein rich food in form of oil cakes. The cereals concentrate mixture is to be fed up to 35% during extreme winter and protein rich in summer conditions.

Provide lukewarm clean water 3-4 times in a day ad-lib during extreme winter season and clean and cool water 5-6

times in a day ad-lib in extreme summer season.

This seasonal feeding and management will help in increasing the reproductive and productive condition of animal body against seasonal stress and in inclement weather also. Further it will ensure in reducing age at first calving and calving interval and certainly shall increase lifetime milk production. Do not change the feeding, watering and management plan abruptly. Only quality compounded feeds, preferably I S O certified, should be fed. Animals should be provided with suitable housing to protect against cold drafts and hot winds (loo).

Present feed costs and other movements

Hike in milk prices by the processing companies recently especially by a well known brand may be due to increase in prices of feed and fodders. According to a recently survey conducted by the Senior Extension Specialist (Animal Sciences) who works with the dairy farmers observed the rates of feed, fodders and other ingredients. The price of wheat bhusa (WHEAT STUBBLES) and Rice parali (RICE STUBBLES) at the peak season of availability ranges between Rs 10-15 and Rs 6-12 per kilogram respectively. Nowadays Wheat bhusa and Rice parali are the prime fillers of stomach of dairy animals. Moreover the northern states like Punjab and Haryana are said to be surplus by about 50 percent in these feed ingredients of dairy animals. But according to the expert's view the reason behind increase in the price of wheat bhusa and Rice Parali are

1. Mechanical harvesting of wheat crop in place of manual harvesting by thresher cum combine harvester.
2. Burning of straw stuffs/ left out after mechanical harvesting though government has banned the burning of straw in the field and also enacted punishable law for it but the farmers hardly care for it.
3. Farmer's lack of knowledge about technologies for improving nutritive value of straw

Green fodder is the most important ingredient for dairy animals. The market rate ranges between Rs 5-6 per kilogram and the calculated cost for one kilogram of concentrate mixture ranges between Rs 22-32 per kilogram. This increase

in feed and fodder prices have enhanced cost for milk production. This menace of price rise also provides an opportunity to the processing industry to increase the price of milk for urban and rural consumers. This increase has also affected decrease in number of households involved in the occupation of milk production from 80-45 percent in last two decades. In my view the recent increase in price may decrease the household's involvement in dairy occupation from 45-30 percent whereas it is genuinely considered that dairy occupation is back bone of livelihood of more than 85 percent of small, marginal and landless families. After effects of this present increase in price will be great set back to the socio economic conditions of the small marginal and poor milk producers. Therefore the union government as well as state governments and other stakeholders are requested to take up the issue of increased price of feed ingredients with union government of India on the following basis:

1. Lowering the price of feed ingredients
2. Provide subsidy to save the "roti, rozi" of poorer to poorest of this country
3. Processing companies are always gainer whereas the producers and consumers are always looser in the price hike play. It should be checked by formulating suitable policies.

Calf care

Colostrums feeding to calves in proportion to 1/10 of the body weight is very essential and should be started as early as possible preferably just after half an hour after the birth of the calf. Before allowing the calf to suckle it will be desirable to give a small quantity of buttermilk along with a spoon of edible oil to help in removal of meconium and development of acidic condition in G.I. track which will prevent establishment of E.coli infection which leads to white scours. Umbilicus must be cut with a sterilized blade or scissors and antiseptic to be applied to the cut portion. For the control of endo parasites the calf should be dewormed with a broad spectrum dewormer first time after birth at the age of seven days and later it should be repeated after three weeks interval at least up to the age of six months by using prescribed dose with different brand of dewormer each time.

Daily Management

Daily inspection of herd by manager in the morning for identifying sick animals which should be preferably removed to sick yard to avoid infecting other animals and be given proper health care. Detection of animals in heat is mandatory. The animals must be treated kindly avoiding harshness in any for neither physical nor in

form of noise. Delicate and classical music in the shed especially at the time of milking can do wonders. Tick escaping places like cracks and crevices in walls and floors of the cowshed should be completely sealed. Grooming of the dairy herd should be in regular practice. Drying off cows in time so that they may get at least 60 days (sufficient time) pre-partum rest.

Pregnancy diagnosis after 60 days of breeding, providing necessary feed care to pregnant animals is a must. The animals which are not conceiving should be provided necessary treatment and medication. Control of bad habits, licking, suckling and kicking etc. is recommended. Vaccination, screening and testing of herd twice a year against contagious diseases is advisable.

Cleanliness and hygiene management

Cattle grooming and washing of buffaloes with warm water during winter and with cold water during summers is advisable. A mild detergent may be used in washing. Grooming and washing should be done at least 2 hours before milking, followed by wiping of udder with clean duster soaked in mild/ diluted antiseptic solution. Ensure proper hygienic conditions at the place of milking and milk collection centre. Washing of milking place with phenol at least 2 hours before milking is advisable. During mosquitoes and fly season spray of baygon/ flit etc. is suggested to repel or kill them and preferably provide mosquito netting in the shed to avoid entry of flies and mosquitoes. The shed can be regularly sprayed with suitable insecticides.

Animal sheds and animals should be thoroughly cleaned regularly and ideal management conditions are to be maintained to prevent diseases.

However a daily diary of **Dairy livestock farm activity** is suggested for increasing efficiency of production.

Dairy livestock farm activity

Time-4:00-8:00 AM - cleaning, grooming and brushing of dairy animals, feeding of concentrate at the time of milking of farm animals, collection and supply of milk in cans etc., washing and disinfection of milking barns, cleaning of milk animal sheds, green fodder chaffing, dry fodder wetting, mixing with concentrates (feeding of dry/green fodder to milch cows), cleaning farm sheds etc, identify the sick animals and treating them against required diseases, provide them adequate care and treatment, identify the cows in heat through bull parading or visual observations and detection of cows in silent heat.

Use these workers for all above operations at the rate of one labour for every 12-14 cows and these workers should go off duty by 8:00 AM and another farm labour party should come on duty.

8:00-12:00 AM- cleaning calf, freshly calved cows, milch cows, dry stock, bull shed etc., feeding half of the daily concentrate ration to calves, pregnant cows and bulls, grooming and exercising of bulls, treatment of sick animals, breeding cows in heat through natural service or artificial insemination, harvesting, chaffing and feeding of green fodder to all the animals. In case of wheat straw it should be soaked in water at least an hour before feeding and all waste of house hold or unused waste food, fruits and vegetable waste should be mixed in it along with a small amount of common salt. Molasses should be sprinkled to increase feed intake and wheat straw should be properly cleaned against dust and stone pieces. Mangers in all sheds should be filled with green and dry fodder preferably after providing treatment through mixing. To avoid spillage while eating mangers should not be filled up to the top. If grazing pastures are available the animals must be taken for grazing preferably during cooler hours of the day.

12:00-13:00 AN – lunch cum rest period for workers

13:00-15:00AN-miscellaneous work such as vaccination, preparation of concentrate mixture, any type of repair etc., washing and cleaning of water tanks and feeding mangers etc., miscellaneous work plan should be prepared by the dairy manager well in advance so that work may evenly be distributed over the week.

The farm labour that joins the duty at 8 a.m. should go off duty by 5p.m.

Workers/milkers who go off duty by 8:00 a.m. will be on duty by 2.30 p.m. and will remain on duty up to 6.30 p.m.

2.30 -6.30 p.m. - they will repeat all most all dairy farm livestock activities honestly and efficiently

which were operated between 4:00-8:00 a.m.

6:30 p.m. to 4:00 a.m. -watchmen will be on night duty.

All these routine dairy farm livestock activities must be supervised by appointing shift wise “Head Gowala” for better labour efficiency and production.

CONCLUSION

Dairy farm management in day to day activities and managing dairy livestock farm activities scientifically can prove revolutionary. Provide subsidies on concentrate mixture /compound feeds for feeding balanced and economical ration fortified with minerals and special diet to counter seasonal stress and inclement weather is very important for increasing quality and quantity of production along with reproduction.

Education and trainings of farmers about technologies for improving nutritive value of straws is need of the day. Kindness in handling, delicate and classical music for keeping the animal happy and healthy is the need of the day. Following vaccination schedule on prevention is better than cure philosophy, by maintaining cleanliness and hygiene in the shed and milking place with grooming and washing of animals can not be ignored. Netting is equally important for protecting the dairy animals from mosquitoes and flies.

Providing comfortable shelter, adopting proper selection of superior dam and sire in breeding with special emphasis on artificial insemination, heat detection, P.D. and control of endo- ecto parasites should be given due importance. Adopting proper milking method especially full hand method, avoiding knuckling will certainly reduce the production losses. The effective management will surely enhance productivity.

PROFESSOR

Incharge, PVK ROHTAK/HPVK LAKARIA
Lala Lajpat Rai University of Veterinary
and Animal Sciences, Hisar

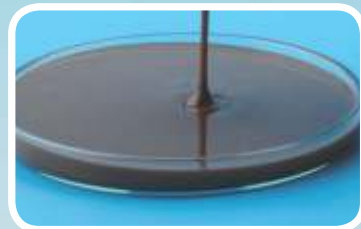
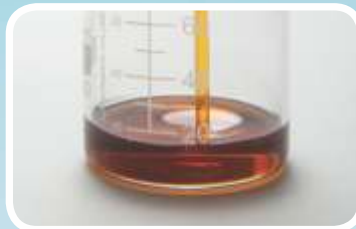
Blueline Group
Since 1968

Blueline®
Foods(India)Pvt Ltd

FISHERIES • AGRI • CONSTRUCTION • REAL ESTATE

AN ISO 9001:2015, ISO 22000:2018, ISO 14001:2015 & ISO 45001:2018, HACCP, HALAL, GMP+ & EU CERTIFIED COMPANY

Manufacturers & Exporters Of
**FISH MEAL, FISH OIL, FISH SOLUBLE PASTE
& OTHER MARINE PRODUCTS**



★ TWO STAR EXPORT HOUSE ★



4th Floor, Suite No 406, Crystal Arc, Balmatta Road, Mangalore - 575 001, Karnataka, India

Ph: +91-824-2427744 / 2441466

Email: info@bluelinefoods.in, bluelinefoods@yahoo.in

E-Brochure is available here <http://www.bluelinefoods.in/ebrochure>

www.bluelinefoods.in



Your Trusted BioCholine Since 2001

BioCholine

Natural, stable and high strength conjugated choline



Indian Herbs is the pioneer to innovate the concept of natural choline for animals species and is the **No. 1 company** to launch Natural Choline- **BioCholine** for the first time in India in the year 2001.

Four years after its launch, **BioCholine** was introduced to global market in 2005.

Today **BioCholine** is a millennial brand that has spanned the world across 7 continents & has legacy of global presence in more than 50 countries.

Natural and Safe

Non-Hygroscopic

Suitable with Premixes

TMA Free and Non-Corrosive

Outstanding Bioavailability

Lower Dose & cost effective

Our customers know the true worth,
— because originality matters —
Being Original

FEED INCLUSION RATE

750gm BioCholine

can replace 1 kg of choline chloride (60%) with better production performance and to help prevention of FLS



PRESENTATION : 25 kg



INDIAN HERBS SPECIALITIES Pvt. Ltd.

C-215, 2nd Floor, Elante Offices, Plot No. 178-178A, Industrial & Business Park
Phase - 1, CHANDIGARH (U.T.) - 160002, Ph. No. 0172 - 5011470, 4181014, +91 9023247217
E-mail : ihspl@indianherbs.org, Website: www.indianherbs.org

Non-Conventional Feed Resources for Poultry Feeding

Brishketu Kumar*, T.K.S. Rao, Ishu Kumari, and Movaliya J.K.

Increase in livestock and human population and decrease in land under cultivation has resulted in acute shortage of feeds and fodder for livestock. The feeds which are traditionally not used for feeding animals are called unconventional feeds. Their use in livestock ration is increasing day by day due to shortage of animal feeds. The main source of such feeds is agricultural and forest and animal by-products. Such feeds are not used either because of traditional beliefs of livestock owners or due to less palatability and presence of anti-nutritional factors in them. Recent studies indicated that quite a large number of agricultural by-products and industrial waste materials could be used for livestock feeding.

The poultry industry is an important aspect of the livestock subsector in India with a potential to solve the problem of malnutrition, unemployment and augmenting rural economy. Feed constitutes 60-70 % of the total cost of production. This high feed cost may lead to a decrease in animal production which contributes to low protein intake. A big gap exists between the demand and supply of conventional feed resources for feeding livestock in the world. So its need to improve the scientific knowledge for utilizing low cost locally available agro-industrial by-products in poultry feed in order to reduce the feed cost. Attempts to utilize locally available cheap by-products may benefit the end users in reducing the feed cost which in turn can reduce the total cost of production of meat and egg and making them easily available at a cheaper cost.

Non-Conventional Feed Resources (NCFR)

Non-conventional feed resources generally refer to all those feeds that have not been traditionally used for feeding livestock and are not commercially used in the production of livestock feeds. Several known examples include palm leaf meals, palm press fiber, cassava foliage, spent brewer's grains, sugar cane bagasse, rubber seed meal and some aquatic plants. The term NCFR is used to describe sources such as oil palm by-products, single-cell proteins and feed materials derived from agro-industrial by-products of plant and animal origin, poor-quality cellulosic roughages from farm residues and other agro-industrial by-products such as slaughter-house by-products and those from the processing of sugar, cereal grains, citrus fruits and vegetables

from the processing of food for human consumption.

Non-Conventional Poultry Feeds

Energy Sources:

The main energy source maize availability has been increasing at a slower rate but not at par with livestock and poultry sector growth in our country. To meet out the demand, the combinations of maize with other cereals especially pearl millet, finger millet and sorghum at 25 to 33 percent level are encouraged in the development of poultry industry. Utilization of different cereals and oilseed residue has also been proved to be good. In addition broken rice, rice polish, de-oiled rice bran, maize grit, maize germ meal, maize germ cake, broken wheat, dried distillery grain etc are available to replace maize. The edible oils and fats play a major contribution in replacing the maize as an energy source. Some of the important un-conventional energy source feeds used in poultry feeding is:

Small millets: Small millets such as kodon and sawan can be used in place of maize up to 20 per cent in the ration. Ragi, kambu and cholam, available in southern India, may also be satisfactorily used to replace maize to an extent of 50 per cent.

Tapioca-meal: It is obtained from the tubers of tapioca. The meal is a good source of energy.

Molasses: May be used to replace cereal grains upto 45% of the ration. Higher percentage produces wet droppings because of high mineral content of molasses.

Deoiled salseed-meal: It is a by-product from processing of Sal fruits for oil. The composition of meal resembles cereals. But its use is very much limited to poultry because of its high tannin content.

Protein Sources:

Soya bean meal is the main protein source of poultry feed and is used in several forms in India because of its high protein content and digestibility. Use of alternate protein sources will reduce the cost of protein source. However there are certain limitations in using different un-conventional protein sources like mustered cake (glucosinates, tannins,

erucic acid, colour etc.), sunflower cake (high fibre), safflower cake (high fibre, low availability), niger cake (export and cost competitiveness) and ground nut cake (aflatoxin, fibre and cost). The other promising by products include guar, cotton seed meal, sesame meal, rice gluten meal etc. could also be used in poultry production. The use of fish meal has been restricted because of non availability of good quality fish meal and cost. The other animal protein feed stuffs like meat cum bone meal, meat meal and blood meal also used for poultry feeding. Some of the important un-conventional vegetable protein source feeds used in poultry feeding is:

Soybean-meal: Soybean contains about 35 to 40% protein and 18 to 20 % fat. It is a high-quality vegetable protein rich in lysine, arginine, glycine, tryptophan and cystine. The limiting amino acid is methionine.

Sunflower seed-meal: It is superior to groundnut-meal in nutritive value. But because of high fibre content its use is restricted in poultry rations. Compared to soybean-meal it is richer in methionine and arginine but poor in lysine.

Safflower-meal: It is a good substitute to groundnut-cake up to 25 per cent level in the ration. Lysine deficiency appears to be one of the main limitation.

Linseed-meal: It is a good source of tryptophan but contains cyanogenic glycoside and antipyridoxial factor. It can not be used more than 5% if not processed.

Sesame-meal: It is a good source of protein supplement and a good source of arginine, methionine and tryptophan, but poor in lysine, cystine and glycine.

Maize gluten-meal and feed: A by-product of maize starch industry, rich in protein and xanthophylls but deficient in lysine, tryptophan and arginine.

Mustard-cake: It is superior to groundnut-cake in protein quality and lysine content. Its use in poultry ration is limited because of the presence of glycosides and goitrogens. It can be used to the extent of 5% in chick and 10% in laying hen diets.

Cotton-cake: High in protein content but deficient in lysine. It can be used up to 15 per cent as a substitute for groundnut-cake.

Animal Protein Sources:

Poultry by-product-meal: It is a product from poultry processing plants, and includes heads, feet and entrails. It must not contain more than 16 per cent ash and no more than traces of feathers. The meal may contain 55 to 60 per cent protein and 12 per cent fat if not extracted.

Meat and meat-cum-bone-meal: Besides a good source of high quality protein, it is a good source of calcium and

phosphorus. The quality of meal is variable depending upon the processing methods and the proportion of gelatin it contains. The variable quality and content of phosphorus limit the use of these meals to 5 to 10 per cent of the diet.

Hatchery by-product-meal: This consists of infertile eggs, dead embryos; killed chicks and egg shells collected as waste during hatchery operations, and have been cooked, dried and grounded with or without removal of part of its fat. It contains approximately 25-34 per cent crude protein depending upon the material that goes into its making.

Feather-meal: It contains 80-85 per cent of crude protein and may be used up to 5 per cent level in poultry rations.

Blood-meal: It contains 80 per cent protein and is rich in lysine, arginine, methionine, cystine and leucine, but deficient in isoleucine. The maximum dietary level of inclusion is not greater than 2 to 3 per cent due to unpalatability and low biological value of its protein.

Liver residue-meal: It is a good source of lysine, methionine, cystine and tryptophan, and an excellent source of riboflavin, choline and vitamin B12.

Silkworm pupae-meal: Deoiled silkworm pupae-meal is a good protein supplement. Because of high fibre content and poor protein digestibility its use is restricted in poultry rations.

Constraints in the Utilization of NCFR

Limited knowledge of the chemical composition and feeding values of non-conventional feeds.

- Most of NCFR contains anti-nutritional factors thus not suitable for use in animal feed, and little knowledge about their long-term effects on animal health and productivity.
- Non availability in large quantities
- Lack of storage facility
- Lack of managerial and technical skills for utilizing the feeds in situ.
- Processing difficulties: Difficulties in the collection, handling, transportation, and processing of these feeds.
- Variability in nutrient level and quality (soil, climate, variety, harvest method, processing) etc.
- Presence of naturally occurring anti-nutritional/toxic factors (alkaloids, non-starch polysaccharides, glycosides, tartrates, heavy metals).
- Presence of pathogenic micro-organisms.
- Need for supplementation (minerals, most limiting



STARBLEND®

Proficient Phytogetic Feed Supplement Helps to Enhance Protein Efficiency



with Micro
Encapsulation
Technology

Helps to

Enhance Protein **Efficiency** To Optimize **Performance** & ROI

ADDON® RUMEN SUPPORT

High Concentrated Yeast Metabolites with β glucans & MOS



Feed The Rumen First.. Helps to Improve Dairy Herd Performance

FOR THE USE OF REGISTERED VETERINARY PRACTITIONERS

For further information please contact us:

Virbac Animal Health India Pvt. Ltd.

604, 6th floor, Western Edge - I, Magathane, Western Express Highway, Borivali (E), Mumbai- 400 066

www.in.virbac.com • Phone No. +91-22-4008 1333

Know how to optimize your feed mix.

AMINO Tools and Services provides the analytical means to optimize animal feed.

AMINO Tools and Services provides all means required to improve animal performance and helps to utilize feed ingredients in the best possible way. Economically, but also in regards of animals' well-being.

Essential part of Evonik Precision Livestock Farming

animal-nutrition@evonik.com

aminotools.com

AMINOTools



essential amino acids) as they are deficient in one or two essential nutrients.

- Seasonal and unreliable supply (need for storage). Bulkiness, wetness and/or powdery texture.
- Lack of research and development efforts

Conclusion: A distinctive gap exists between the requirements and supplies of nutrients to the livestock and poultry sector. The non conventional feeds could partly fill this gap. Presently, these by-products are not exploited to the full extent for inclusion in the poultry feed. Seasonal

availability, high cost of handling and transportation from the production site to the farm, presence of anti-nutritional factors make this difficult. The use of non-conventional feedstuffs in poultry sector is going to be increase because of their nutritive quality and as a cheap source of protein and energy. In addition, these non-traditional feedstuffs are not competitive with humans.

*Assistant Professor, Department of Animal Science,
College of Agriculture, NAU, Bharuch, Gujarat
Corresponding author: Brishketu Kumar, E-mail: brishketuk@gmail.com



Rising Maize Prices Hurting Poultry Producers

G. CHANDRASHEKHAR

The Indian livestock industry has taken time to recover from massive price spikes of key feed ingredient soymeal in 2021 and 2022. But the industry is hit by one more spike, this time of another feed material maize (corn) widely used in the poultry industry.

Tightening domestic availability of maize has resulted in higher prices of the produce. While high price is sure to benefit growers, the user industry is forced to grapple with higher feed costs that in turn push the cost of production of the end product – chicken meat – higher.

For the year 2022-23, the government has fixed a production target of 33.2 million tonnes for maize comprising 23.1 million tonnes in Kharif and 10.1 million tonnes in Rabi Season.

The government has estimated Kharif 2022-23 maize production at 23.8 million tonnes, slightly higher than the target and higher than government's 4th advance estimate of 22.6 million tonnes for Kharif 2021-22. However, private estimates point to lower crop size. For instance, the production forecast this author announced early September 2022 was 20.0-21.0 million tonnes.

The Rabi season has turned out to be no different. Maize has been planted to 2.3 million hectares this season, some 400,000 hectares more than 1.9 million hectares in 2021-22. Major growing regions have faced less-than-satisfactory precipitation during the growing period. Yet, the government has estimated Rabi maize harvest at 10.8 million tonnes.

Private estimate is lower. In February this author announced his production forecast in the range of 9.5-10.0 million tonnes, although chances are that the harvest size would be closer to the lower part of the range namely 9.5 million tonnes.

On the other hand, domestic demand has continued to

rebound after a hiatus of two years following the pandemic related disruptions. Export demand for Indian maize is also robust in the wake of disruption to global supplies because of the war in the Black Sea region. All this has led to tightening supply-demand fundamentals.

No wonder, domestic maize prices have spiked, making the feed cost more expensive for the poultry producers. There is a limit to which the producers can pass on the higher feed cost to consumers. At some stage there is the risk of consumer resistance to higher poultry meat prices leading to tepid or even negative demand growth.

It is necessary for New Delhi to keep the import window open, especially for poultry feed material including DDGS (dried distillers' grains). In 2021 the government allowed import of 1.2 million tonnes of soymeal. The import window must be kept open.

Sustained price volatility of key inputs makes out a strong case for poultry producers to set up backward linkages so as to be able to produce the right quantity and quality of raw material they need.

Climate change is certainly a big challenge for the industry especially relating to availability of key feed crops. Poultry producers must build resilience against unforeseen events that can hurt growth.

Given the robust growth prospects, this industry cannot anymore afford to remain vulnerable to adverse market developments and all the time look up to the policymakers for support. The industry must work to become self-reliant. The industry needs sustained growth in sustainable ways.

(G. Chandrashekhar, agribusiness and commodities market specialist, is a senior editor and policy commentator. Views are personal. He can be reached at: gchandrashekhar@gmail.com)

Legal Aspects of Drug Residues

Komal Chauhan¹, Bilal Chamadia¹ and Nitin Tyagi^{*1}

INTRODUCTION

Veterinary drugs are used for various purposes which include therapeutic and prophylactic uses, improvement of feed efficiency, and eventually better growth and performance. These benefits of drugs are possible when there is rational administration of drugs while following Good Veterinary Practices (GVP). However, failure to use drugs rationally i.e., the use of inadequately labeled and inappropriate use of drugs can lead to problems in the form of toxicity in the animal itself and the presence of drug residues in food exceeding the legally permitted levels. Therefore, to deal with these issues, a governing body or legal authority is required to endure the quality, safety, and efficacy of the drugs. Lack of regulation or presence of unsuccessful regulation of drug supply can result in:

- Introduction of drugs of unspecified quality
- Inadequate labeling of drugs
- Breach of special requirements (e.g., refrigeration) for storage of certain drugs
- Inability to observe withholding periods
- Use of drugs after their expiry
- Drug residue accumulation in livestock products

The presence of drug residues in edible animal tissues can result in the following:

1. **Production of antibacterial drug residues** - hamper the technological processes e.g., alter the fermentation process of milk to form cheese, yogurt, etc. thus deteriorating the quality of the product and eventually having an adverse effect on human health and trade of these products.
2. **Drug residues in the carcass, manure, and slurry** which when fed upon by vultures, dung beetle, etc. negatively impacts them because of the bioaccumulation or biomagnification process in the food chain.
3. **Residues in animal-based food** for human consumption may have direct effects on human health-

- a) higher than ADI (Acceptable Daily Intake) – chronic health effects (e.g., mutagenicity, carcinogenicity, teratogenicity, etc.)
- b) higher than ARfD (Acute Reference Dose) – acute adverse health effects (e.g., allergy)

4. **Antimicrobial resistance** which makes it difficult to treat diseases as the pathogens get resistant to various drugs

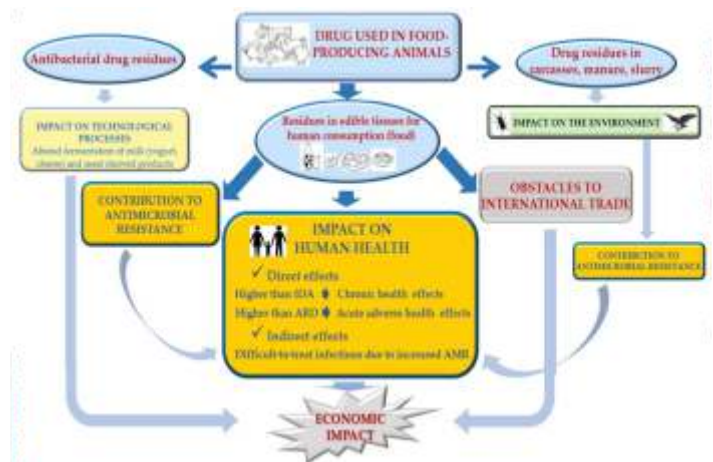


Figure: Schematic representation of the main adverse consequences of the presence of drug residues in edible animal tissues (Canton et al., 2021)

These adverse consequences thus harm animal health, human health as well as environmental health, thus contributing to a negative impact on the economy of a nation.

TERMINOLOGY

Veterinary Drug is a substance administered to food-producing animals intended for therapeutic, prophylactic, or diagnostic purposes or modification of physiological functions or behavior of the animal.

Residues of Veterinary Drugs include the parent compounds and/or their metabolites in any edible portion of the animal product.

Good Practice in the Use of Veterinary Drugs (GVP) - the official recommended or authorized usage including

withdrawal periods, approved by national authorities, of veterinary drugs under practical conditions.

- **Acceptable Daily Intake (ADI)** - total drug residues, the parent compound, and all metabolites, that can be safely consumed daily throughout one's life.
- **Estimated Daily Intake (EDI)** was calculated by the following equation given by Juan et al. (2010).

$$EDI = (\text{concentration of residue as } \mu\text{g/kg}) \times (\text{daily intake of food in kg/person}) / \text{Adult body weight}$$

- **No-Observed-Adverse-Effect Level (NOAEL)** - The highest dose at which no toxic or adverse effect is observed.
- **Lowest-Observed-Adverse-Effect Level (LOAEL)** - The lowest dose at which a toxic or adverse effect observed
- **Withdrawal Periods (WP)** - It is the time after the last administration of a drug during which the animal-based edible products must not be intended for human consumption, ensuring that residues will not exceed the MRLs. It enables the animal to metabolically reduce the drug level in tissues to levels that are not of public health concern (Anadon et al., 1998). If the withdrawal period is not specified- one should avoid using animal products for not less than 7 days for eggs and milk and not less than 28 days for meat.
- **Maximum Residue Limit (MRL)** - maximum concentration of drug residue legally tolerated in a food product obtained from an animal.

REGULATORY MECHANISMS FOR DRUGS IN ANIMAL PRODUCTS

In 1977, the Office of Technology Assessment (OTA) assessed the use of drugs, in livestock and poultry production, with particular emphasis on the following concerns:

- Benefits to livestock producers from the use of drugs used as feed additives
- Potential risks from the use of various drugs
- Alternatives available to the use of each category of drugs
- Acceptable risks in the use of the drugs
- Options available to improve regulation of drugs used in livestock feeds

International regulation for drug residue in food

- **U.S. Food and Drug Administration (1906)**
- **Food, Drug and Cosmetic Act (1938)**
- **Codex Alimentarius Commission (1963)**

➤ **Food and Agriculture Organization (FAO), 1945** (Fingleton, 2004)

➤ **Food Animal Residue Avoidance Databank (FARAD)** - Since 1982; NIFA (National Institute of Food and Agriculture) administers the funding that establishes and maintains FARAD. It is a computer-based decision support system that provides livestock producers, extension specialists, and veterinarians with practical information on how to avoid drug, pesticide, and environmental contaminant residue problems.

➤ **Joint FAO/WHO Expert Committee on Food Additives (JECFA, 2012)** - An international expert scientific committee administered jointly by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO). It has been meeting since 1956, initially to evaluate the safety of food additives. The areas of work include risk assessment/safety evaluation of Food additives, flavoring agents, residues of veterinary drugs in animal products, contaminants, natural toxins, exposure assessment, specifications and analytical methods, residue definition, MRL proposals, and development of general principles

➤ **Animal Medicinal Drug Use Clarification Act (AMDUCA), 1994** is related to the legalizing of extra-label drug use by veterinarians as long as specific criteria are met. Extra-label drug use occurs when the drug is used in a manner not in agreement with approved label directions. ELDU includes, however, is not restricted to different dosages, intervals, routes, indications, or species. This act is limited to situations when the health of an animal is threatened, or pain or death may result from failure to treat.

Drug Regulations in India

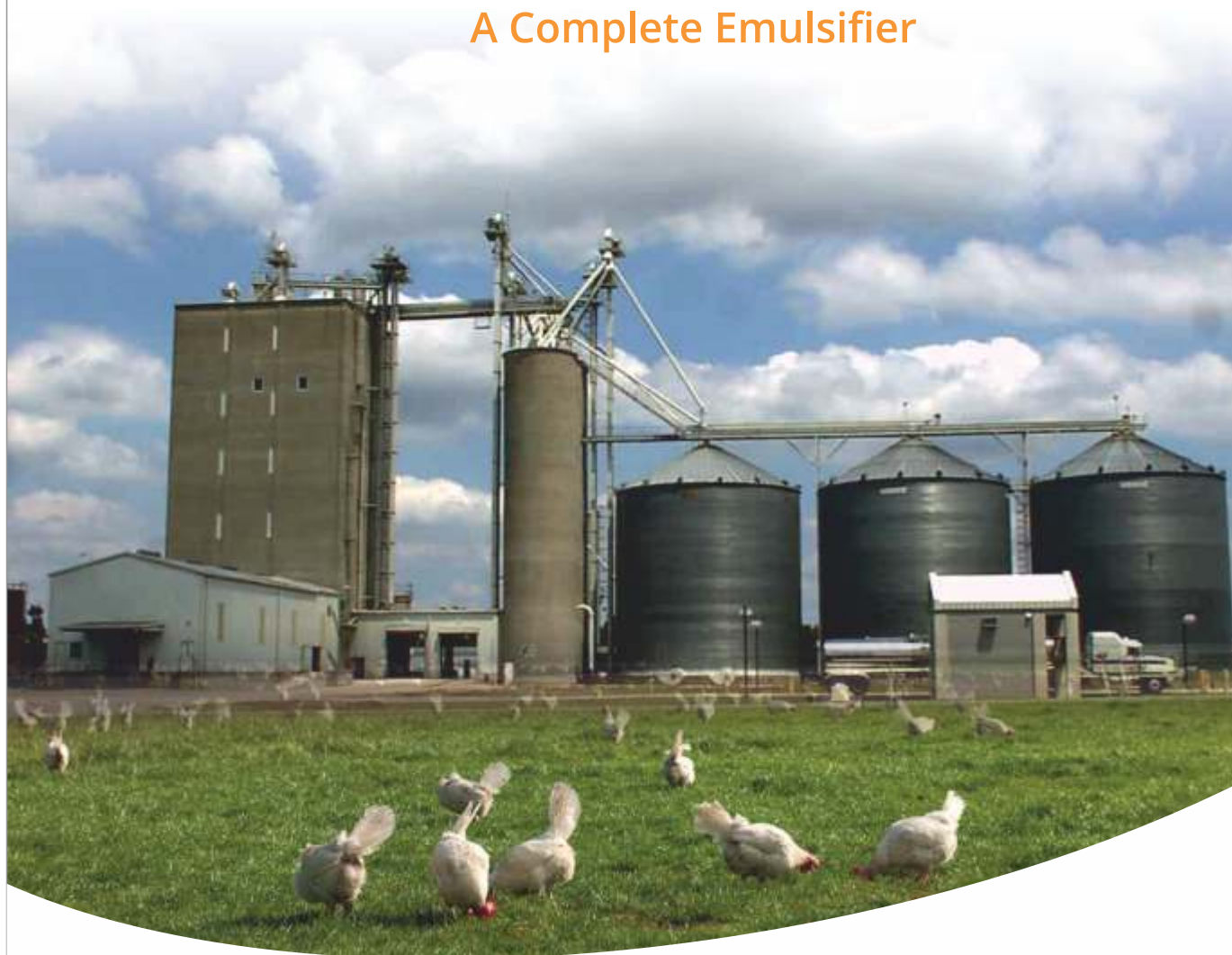
Indian Law/Regulatory body	Remark
CDSCO (Central Drugs Standard Control Organisation)	Under the Ministry of Health and Family Welfare, CDSCO provides information about drug regulatory requirements
NPPA (National Pharmaceutical Pricing Authority)	Drugs price (control) order, 1995
Drugs and cosmetic act, 1940	Regulates import, manufacture, distribution, and sale of drugs
Pharmacy Act, 1948	Regulates the profession of pharmacy

Food safety regulations in India

- The Food Safety and Standards Act, 2007
- Milk and Milk Products Order, 1992
- Meat and Meat Products Order, 1973



A Complete Emulsifier



OPTIMISES FEED MILL EFFICIENCY AND LIPID DIGESTION

✓ Production **Throughput** Increase (MT/Hrs) ▲ 10 - 15%

⚙️ **Power Consumption** Reduction (Kwh/MT) ▼ 7 - 10%

💧 Finished Goods **Moisture** Increase ▲ 0.5 - 1%

♻️ Recycle **Fine** Reduction ▼ 10 - 15%

🔍 Finished Goods **Fine** Reduction ▼ 1 - 2%

✓ **PDI** Improvement ▲ 5 - 7%

Ceva Polchem Private Limited

Premises No. 101, First Floor, Phase II, Manikchand Galleria, Model Colony, Shivajinagar, Pune- 411016, India.
Tel.: +91 - 20 - 2567 0606, 2567 0607. Email : sales.ind@ceva.com Web : www.cevapolchem.in



The new name in plant-based solutions.

Avitech Nutrition presents PhyGeno – a range of plant based solutions (phytogenics) for the feed industry.

PhyGeno combines Ayurvedic knowledge with modern evaluation and manufacturing techniques to offer solutions that enhance the nutritive and safety values of animal feeds.



- **Avitriol**
Natural Bioactive Vitamin D3
- **PhyCholine**
Herbal Choline
- **GenoLiv**
Herbal Hepatoprotective
- **Green-C**
Herbal Vitamin C

For more details visit
www.phygeno.com
connect@phygeno.com

- Prevention of Food Adulteration Act, 1954
- Export (Quality Control and Inspection) Act, 1963
- Export (Quality Control and Inspection) Rules, 1964
- Export of Raw Meat (Chilled/Frozen) Rules, 1992
- Export of processed Meat (Quality Control and Inspection) Rules, 1995
- The National Food Regulatory Authority

Food Safety and Standards Authority of India (FSSAI) - On August 1, 2018, FSSAI amended the Food Safety and Standards (Contaminants, toxins, and Residues) Regulations, 2011 to include new tolerance limits for 103 antibiotics and other veterinary drugs in meat and meat products, poultry, fish and milk.

BAN ON VETERINARY DRUGS

- In July 2008, the Government of India banned Diclofenac and its formulations for veterinary use to conserve vultures.
- Indian Ministry of Health issued a notification prohibiting the use of the drug Colistin and its formulations in food-producing animals and animal feed supplements in the year 2016. Since colistin is considered the next-level antibiotic, resistance to it can cause serious problems in both animal and human populations.
- FDA banned the use of ciprofloxacin in chicken as nearly 30% of E. coli present in chicken breasts were found to be ciprofloxacin resistant. Currently, no fluoroquinolones are approved for use in poultry in the USA, even in an extra-label manner [FDA, 2021].
- Ban on all antibacterial growth promoters in Sweden (1986). Antibiotics can be used only for their therapeutic purpose and not for growth promotion in food animals.

HOW TO ENSURE PROPER REGULATION?

- An equilibrium between guaranteeing the quality, safety, and efficacy of the drugs and making the drugs available to the farmers
- Drug residue monitoring programs can ensure that prohibited substances do not exceed MRLs
- Public awareness campaigns for those in the industry - manufacturers, importers, vets and paravets, small-scale drug retailers, and the farmers themselves - of the law's requirements can help improve the drug use
- The concept of the five R's to prevent drug residues proposed by Armstrong and Evans can be followed by producers (Armstrong et al., 2021) -

- ✓ **Relationships** - Developing good relationships with people involved in the process
- ✓ **Responsible use** - Rational use of veterinary drugs
- ✓ **Recordkeeping** - Maintenance of treatment records efficiently
- ✓ **Respect** - withdrawal times and usage limitations should be followed properly
- ✓ **Remove doubt** - Regular monitoring, screening, and surveillance
- Implementation of regulatory laws at dairy farms and dairy industries
- Good dairy management practices should be followed at animal farms and dairy units
- Encourage the use of safe alternate medicine and ethnoveterinary practices

Removing antibiotics from animal-based food products

1. Thermal reduction of antibiotic residues in animal food products

Boiling, grilling, roasting, or frying as well as the use of a microwave is known to reduce the residues by varying levels in milk and/or meat. For example, Alaboudi et al. (2013) reported a 58–69 % reduction in tetracycline residues while a 47–52 % reduction in quinolone residues in the egg by frying/ boiling. Roca et al. (2011) reported a 0.1–100% reduction in β -Lactam residues while a 0.01–12.71% reduction in quinolone residues in the egg by boiling

2. Certain methods for removing antibiotics and animal drugs from milk without substantially changing the composition of milk have also been patented:

a) Removing antibiotics from milk (James E. Geyer; Patent USA 1992)

- Heating milk to a temperature enough for solubilizing fats
- Contacting milk with resin for a time sufficient enough to allow the resin to extract antibiotics present in milk
- Collection of milk

Resins used like anion exchange resin, non-ionic hydrophobic resin, cation exchange resin, etc.

b) Removal of pharmaceutical antibiotics from contaminated milk (F. V. Kosikowski and R. Jimenez-Flores; US patent, 1987)

- **Ultrafiltration** to produce permeate containing the contaminating antibiotic and retentate comprising milk proteins and fats

- **Dilution of the retentate** by adding antibiotic-free containing retentate diluting (washing) aqueous fluid
- **Re-ultrafiltration of diluted (washed) retentate** to form a milk product comprising retentate with no or lower level of residues
- Finally, **reconstitution of milk retentate** with either uncontaminated ultrafiltrated milk permeate or uncontaminated whole milk.

Conclusions

Drugs used in food animals can produce various residues which when present in animal-based food and have a harmful impact on humans, the environment as well as the economy of a nation. There is a need to set up legal standards to safeguard animal production as well as consumers' health.

Various international and national organizations deal with the regulation of drug use to ensure the quality, efficacy, and safe use of drugs. All the actors related to the livestock production chain must fulfill their responsibility for the practical use of drugs in food-producing animals, to ensure safe residue levels in food. 5 R's can help in the reduction of drug residues - **relationships, responsible use, record keeping, respect and remove doubt**. Since the majority of animal products are not consumed raw, different heat treatments (thermal degradation) and physical treatments (ultrafiltration of milk) can help in reducing the number of drug residues.

¹Animal Nutrition Division, ICAR- National Dairy Research Institute, Karnal – 132001, India



APRIL 2023

18-20 NORTH EAST LIVESTOCK-AQUA-POULTRY EXPO 2023

At Maniram Dewan, Trade Centre in Guwahati, Assam.
Contact : Pravash Pradhan
P2C Communications,
J-10, Green Park, New Delhi-110016
Ph: +91-8882667803, +91-9650078860, +91-11-49052556
Email: livestockaquapoultryexpo@gmail.com
Website: www.smartagripost.com

MAY 2023

INDIA INTERNATIONAL POULTRY EXPO 2023 (IIEP 2023)

At at Messe Global Exhibition & Convention Centre,
Laxmi Lawns, Magarpatta, Hadapsar, Pune, Maharashtra
Contact: M. A. Nazeer
Chief Executive – IIEP
Ph: (91-040) 23303989 / 9666689554
Email: nrs.iiep@gmail.com

AUGUST 2023

03-05 THE LIVESTOCK EXPO 2023

At India Expo Center & Mart, Greater Noida, Delhi – NCR,
Contact: Pixie Expomedia with Infinity Expo
Rakesh Bhardwaj
Email: rakeshbhardwaj001@gmail.com

25-27 11th INTERNATIONAL POULTRY & LIVESTOCK EXPO 2023

12th DairyTech India 2023 and GrainTech India 2023
At BIEC Bengaluru
Contact: M. B. Naqvi
Chief Coordinator
Tel: 011-46081634 / 9811152139
Email: iplexpo@gmail.com
Website: www.iplexpo.com

AUGUST / SEPTEMBER 2023

CLFMA 56th AGM & 64th National Symposium 2023

Contact: CLFMA OF INDIA
111, Mittal Chambers, 11th Floor,
228, Nariman Point, Mumbai 400 021
Ph: (91-22) 22026013
Fax: (91-22) 22880128
Email: admin@clfma.org

OCTOBER 2023

03-05 VICTAM LATAM

At Expo Center Norte,
Red Pavilion, Sao Paulo, Brazil
Ph : +31 6 2126 4398
Email: nickmouthaan@victam.com
Website: www.victamlatam.com

27-29 FEED TECH EXPO 2023

At Auto Cluster Exhibition Center, Pune
Contact: Prachi Arora,
Managing Partner, Benison Media
Ph:+91 8607463377 | +91 184 4047817
Email: info@feedtechexpo.com
Website: www.feedtechexpo.com

NOVEMBER 2023

22-24 15th POULTRY INDIA 2023

Indian Poultry Equipment Manufacturers Association (IPEMA)
At Hyderabad International Convention Centre
HITEX Exhibition Centre, Izzat Nagar, Hyderabad - 500 084, A.P.
Contact: Ms. Sandhya Rani
Ph: 040 2414 2413 /10/20
Email: info@poultryindia.co.in
Website: www.poultryindia.co.in

Hurry Up...Only 25 Copies left



ASSOCIATION OF LIVESTOCK INDUSTRY

Livestock Industry Survey Report 2022

VOLUME 1



Sale of Livestock Industry Survey Report 2022
Price Rs. 10,000 /- (Including GST).



**FRENCH
QUALITY
SINCE 1952**

Du végétal à la vie
www.stolz.fr



**TURNKEY
SOLUTIONS**



STOLZ ASIA PTE LTD

133 CECIL STREET #17-01, KECK SENG TOWER, SINGAPORE 069535 - ASIA@STOLZ.FR - WWW.STOLZ.FR

RAISING THE BAR

With years of research and globally proven efficacy, Novus enzyme solutions are helping the nutritionists and the producers to raise the bar every time by improving animal performance and feed cost savings



CIBENZA[®]

NOVUS[®]
SOLUTIONS SERVICE SUSTAINABILITY™

* Novus is trademarks of Novus International, Inc and are registered in the United States and other countries.
TM SOLUTIONS SERVICE SUSTAINABILITY is a trademark of Novus International, Inc.,
© 2021 Novus International Inc. All rights reserved.

www.novusint.com

Bringing an Integrated approach to nutrition

**CELEBRATING
90 YEARS
OF FEEDING
THE FUTURE**



**Feed
Management**



**Farm
Management**



**Health
Management**



INNOVATIVE NEWLY LAUNCHED CATTLE FEED PRODUCTS

High Quality Cattle Feed which helps to increase
milk production along with health & reproductive ability of Cattle



For more details, scan the QR
or WhatsApp us on 9738380000.



This Cattle Feed band is the registered trademark of Godrej Agrovet Limited
and imitation of the same is a punishable offence.