

17th Convocation of NDRI, Karnal organized on 23rd March 2019

ICAR-NDRI ORGANIZED 17th Convocation on 23rd March 2019 and Hon'ble Secretary, Department of Agricultural Research and Education (DARE) and Director General, Indian Council of Agricultural Research, Dr. Trilochan Mahapatra graced the occasion as the Chief Guest and gave away the degrees and delivered the Convocation Address.

During his address to students, he congratulated the students and said that NDRI is providing a large number of trained young professionals in dairy production, processing and management to the nation. Recalling the success of white

revolution in the country, he emphasized that at present the country is again witnessing white revolution as during the last 3 years, with annual growth rate of 5.53%, milk production in India has outpaced global milk production rate (2.09%). The per capita availability of milk has gone up to about 375 g per day, which is more than the world average of 294 g per day. Dr. Mahapatra said that while India is self-sufficient in milk production, the key focus areas are: continuing growth in milk production, building scales in processing capacities, and enhancing inclusive growth through the organized sector, thus, benefitting the stakeholders across the value chains. He emphatically advised students to follow the path of Discipline, Determination and Dedication to achieve their dreams.

Dr. R.R.B. Singh, Director, NDRI presented the progress report on the significant achievements made by the institute during the past year. He also congratulated all the awardees, teachers and parents. He said that Institute is offering Doctoral and Master courses in fifteen different disciplines. In addition, the Institute also offers the prestigious degree course leading to award of B. Tech. (Dairy Technology). At present, 917 students are undergoing various academic programmes including 338 girl students and 5 foreign students (2 in Doctoral Programme, 2 in Masters Programme and 1 in Graduate programme) from Syria, Ethiopia, Afghanistan, Nigeria and Nepal. In the 17th Convocation we are awarding degrees to 80 PhD students, 144 Masters and 25 B.Tech students. In 2017-18, the average salary offered was ₹ 5.04 and ₹ 8.20 lakhs per annum for UG and PG students, respectively. He further said that has seven collaborative international research projects with UK, USA, Egypt and Kenya. NDRI has filed 4 patents and 4 patents have been granted. He further said that NDRI has commercialized a total of 17 technologies to various dairy industries during the year 2017- 18.

Dairy sector expected to create 1.2 crore new jobs in future

THE SIZE OF FOOD INDUSTRY in India is \$300 billion, of which dairy sector is worth around \$100 million, Shri R.S. Sodhi, Managing Director, GCMF said recently during a session on 'Industry as Nation Builders for a New India', organised by the CII Western Region Council.

India's dairy sector, which is one-third of the country's \$300-bn food industry, is expected to generate 1.2 crore new jobs. The organised sector in the dairy is procuring 9 crore litre, and in few years, it would touch 30 crore litre to generate 1.2 crore new jobs.



He claimed that the processing of one lakh litre milk generate around 6,000 jobs - 5,000 in rural areas and 1,000 in urban areas.

Unless sincere efforts to modernise dairy industry with latest technological innovations is made, it would be difficult to retain youth in the sector. Youngsters don't find dairy sector glamorous despite the fact that it would give handsome return on investments. Dairy is the only sector

in which producers are guaranteed with ready market with assured price. The only thing required to propel the sector is to make it contemporary with adoption of modern technology.

In Gujarat alone, nearly 15,000 highly educated youth, some of them having studied in reputed institutions like IIM and IIT, have come into dairy industry by adopting state-of-the-art technologies.

No product will be labelled as 'fresh', 'pure' or 'natural' without FSSAI permission

FSSAI has made it mandatory for brands to either procure permission to use such words, or carry a disclaimer about them.

Companies often use labels like 'natural', 'pure', 'authentic', etc. But from 1 July, 2019 the use of such words on products will cost manufacturers ₹10 lakh as fines.

It has now been made mandatory for the brands to either get permission to use such words, or carry a disclaimer about them on the product. There are several products that carry such words.

Customers are generally attracted to words like 'genuine', 'original', etc on food products. When a company uses the word 'real', for a food product for

instance, it implies that it is the only real/original product, which is in violation of the advertisement rules of FSSAI. This creates a false perception of a product for customers.

The circular issued by the apex food regulator, states that where the meaning of a trade mark, brand name, or fancy word containing adjectives such as natural; fresh, pure etc. appears on the label, presentation, or advertising of a food product in a way that is likely to mislead the consumer about the nature of the food, a disclaimer not less than 3 mm in size shall be given in an appropriate place on the product. It should state that this is only a brand name or trade mark and doesn't represent its true nature.



Dairy farmers of Andaman & Nicobar Islands to get a new dry fodder source for their livestock

THE NABARD, PORT BLAIR AND ADHITHI MILK AND AGRI PRODUCER CO. LTD. (AMAAPCO) in association with ICAR-NIANP, Bangalore and ICAR-CIARI, Port Blair organized technology demonstration cum training workshop on "Use of areca sheath as dry fodder for ruminant livestock in Andaman & Nicobar Islands" during 21-23 February, 2019. Dr N.K.S. Gowda, Principal Scientist, ICAR-NIANP, Bangalore visited different regions of Andaman Islands (Sippigad, Kadamtala, Billyground and Diglipur) and conducted demonstration cum training workshop for farmers and officials of Department of Animal Husbandry, A & N Islands Integrated Development Corporation Limited (ANIIDCO). A total of about 300 participants attended the workshop.

Areca cultivation is a lifeline of people of A & N Islands and there is a huge potential to use dried areca sheath as dry fodder source for livestock in this region to mitigate the shortage of fodder and enhance milk and livestock production.



DAIRY DAY FORAYS INTO MAHARASHTRA; AVAILABLE AT 2,000 OUTLETS IN KARNATAKA

Dairy Day, South India's leading ice cream brand, which has an extensive presence in Karnataka and Tamil Nadu, recently expanded into Maharashtra. The product is already available across 2,000 outlets in Maharashtra, including Pune, Kolhapur, Beed, Satara and several other cities and towns. The company has partnered with over 1,000 outlets in Pune alone. It has two state-of-the-art manufacturing units in Karnataka, which are spread over two lakh sq ft, and have a production capacity of 1.4 lakh litre per day.

Dairy Day, whose range includes a variety of cups, cones, sticks, tubs and other novelties, manufactures and supplies approximately 150 products in over 30 flavours. The company manufactures market favourites, such as vanilla, strawberry, chocolate, pista, butterscotch and mango, among others, in addition to its own unique flavours, including Paan Twist, Rajbhog, Gulab Jamun, Gajar Halwa, Ice Cream Cake and Ice Cream Sandwich.

DUDHSAGAR DAIRY TO HIKE MILK PROCUREMENT PRICE

Mehsana's Dudhsagar Dairy have hiked milk procurement prices from 1 April 2019 by ₹25 per kg fat, said Shri Moghji Patel, Vice Chairman of the dairy. About six lakh milk producers will be benefited with this decision. They will get ₹575 per kg fat from next month instead of current rate of ₹550 per kg fat.

The six lakh members of the dairy are spread over 16 talukas comprising of two in Gandhinagar, eight in Mehsana and six in Patan. The annual turnover of the dairy is ₹4,500 crore.

Amul clocks 13% rise in turnover at ₹33,150 cr in FY'19

GUJARAT CO-OPERATIVE MILK MARKETING FEDERATION (GCMMF), which markets dairy products under Amul brand, reported 13 per cent increase in turnover at ₹33,150 crore during the 2018-19, driven by strong growth in volume. GCMMF had posted a turnover of ₹29,225 crore in 2017-18.



Amul Federation has been achieving a compound annual growth rate (CAGR) of more than 17.5 per cent for the last nine years because of higher milk procurement, continuous expansion in terms of adding new markets, launching of new products and adding new milk processing capacities across the country.

The provisional group turnover of Amul Federation and its 18 member unions has crossed ₹45,000 crore which is also 13 per cent higher than last year. The 18 member unions of Amul Federation with a farmer-member strength of more than 36 lakh, across 18,700 villages of Gujarat, are procuring on an average 230 lakh litres of milk per day which is 10 per cent higher than last year.

Amul Federation Chairman Shri Ramsinh P Parmar said, "based on estimated growth in market demand for Amul products and our future marketing efforts, we anticipate at least 20 per cent CAGR growth in the business during the next five years."

Shri Jethabhai Bharwad, Vice Chairman, Amul Federation added that member unions of Amul plan to enhance its milk processing capacity from the current level of 350 lakh litres per day to 380 lakh litres per day in the next two years.

According to the Managing Director, Shri R.S. Sodhi, Amul has achieved volume sales growth in all product categories. Pouch milk, which is the highest turnover product, has shown good growth in the market achieving double digit growth in volume.

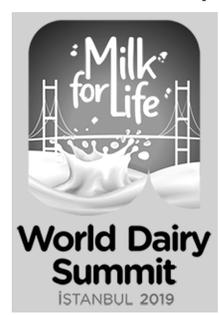
Verghese Kurien Centre of Excellence (VKCoE) at IRMA

AS ENVISIONED BY DR. VERGHESE KURIEN, the Institute of Rural Management Anand (IRMA) has emerged as a pioneering institution of excellence through academic activities, research and publications, imparting training, capacity building and providing consulting services to its associated and networked sector organizations.

Verghese Kurien Centre of Excellence (VKCoE) is yet another step by IRMA to strive for excellence within the belief system passionately nurtured



IDF WORLD DAIRY SUMMIT
23- 26 Sept., 2019
Istanbul, Turkey



The IDF World Dairy Summit is expected to bring together more than 2,000 participants from around the world to discuss issues of

interest in the dairy sector. Theme of the Summit is “Milk for Life”. Dairy producers, processors, experts, academics and policy makers can exchange ideas on topical issues in science, technology and innovation at this multi-stakeholder platform. The conferences are subdivided into the following topics: Marketing; Nutrition; Dairy Policy and Economics; Dairy Science and Technology; Food Safety; Farm Management; Animal Health and Welfare; and Environment. For more information, visit <https://www.idfwds2019.com/>

NATIONAL SEMINAR TO BE ORGANIZED BY IDA (KERALA CHAPTER) AND COLLEGE OF DAIRY Sci. & TECH., MANNUTHY 20 May 2019

College of Dairy Sci. & Tech., Mannuthy, Thrissur, Kerala
 IDA Kerala Chapter and College of Dairy Sci. & Tech., Mannuthy, Thrissur is organizing a National Seminar on the theme "Emerging Trends in Quality Assurance of Milk and Milk Products" at Seminar Hall, VKIDFT at its campus. For registration, interested members may get in touch with Divya KB, Convener, C/o College of Dairy Sci. & Tech, Mannuthy, Thrissur, Kerala-680 651 Ph.: 9495796738 idakeralachapter@gmail.com

and practiced by Dr. Kurien. Set up in 2015 at IRMA, it is supported by the Gujarat Cooperative Milk Marketing Federation (GCMMF) for research and knowledge creation and dissemination in the field of dairy industry in general and dairy industry in cooperative sector in particular.

The Centre has embarked on activities for collaborations and networking with national and international academic and research organizations and policy makers. MoUs have been signed with NDRI, Karnal and the International Cooperative Alliance-Asia Pacific (ICA-AP) and National Council for Co-operative Training (NCCT).

Few MoUs are in the process to be signed shortly with College of Agriculture Banking (CAB) of the RBI, and Copernicus Institute of Sustainable Development/Utrecht University and SMC Dairy College, Anand Agricultural University.

The Centre recently organized a programme on “Exploring Pathways for Sustainable Cooperatives: Understanding Best Practices” for the International Committee for the Promotion of Chinese Industrial Co-operatives (ICCIC-Gung Ho) and co-hosted a national-level competition called Coopathon 2.0 to hack out community-led enterprise solutions using the cooperative model.

VKCoE has begun putting its focus on research with the publication of working papers. The latest in this regard is the working paper by Prof. Shyam Singh from IRMA, titled, “Are Dairy Relations Social too? Social Network Analysis of a Dairy Cooperative Society in Gujarat.”

With the active support of organizations in the sector and with IRMA faculty, the Centre hopes to fulfill its mandate while attempting to realize the dream of Dr. Verghese Kurien who was once quoted as saying: “India’s place in the sun would come from the partnership between wisdom of its rural people and skill of its professionals”.

National Conference at College of Dairy Science, Amreli (Gujarat)

The World Bank funded innovation grants of ₹490 lakh, sub-project titled “Making Kamdhenu University, College of Dairy Science, reform ready for accreditation” has been chosen as a recipient of the award under National Agricultural Higher Education Project (NAHEP) of Indian Council of Agricultural Research, New Delhi. The college organized a National Conference

bulletin

on “Adulteration in Dairy and Food products” on 19th March, 2019 in the presence of Hon’ble Vice Chancellor of Kamdhenu University, Gandhinagar Dr. N.H. Kelavala.

The aim of the conference was to develop and improve technical knowledge for detection of adulteration in dairy products and to provide strong focus for the implementation of food safety through appropriate methods on food safety principles and practices.



Dodla Dairy Establishes an Automated Dairy plant near Rajahmundry

DODLA DAIRY inaugurated its second fully automated plant on March 1, 2019, at Chendurthi, near Rajahmundry, Telangana—first being at Hyderabad, commissioned two years back. With an installed capacity of 2 Lakh litre/day the plant will process liquid milk in pouches and curd. The state-of-the-art plant is poised to have a separate product block with a UHT milk plant and retort for sterilised flavoured milk in PP bottles, besides manufacturing other indigenous products. The plant is centrally located along Chennai-Calcutta high way, mainly to cater to East and West Godavari area besides Visakhapatnam. The project cost works out to ₹ 800 million.



The fully automated computer-controlled plant has latest equipment from GEA & Tetra Pack, which employs Think Top electro-pneumatic valves for milk flow regulation.

In line with the Environment policy of Dodla Dairy, a well-equipped effluent treatment plant has also been installed. This has got many latest features such as Up flow Anaerobic Sludge Blanketing (UASB) digester system, Dissolved Air Flotation (DAF) mechanism for primary clarification and Centrifugal decanter for dewatering the sludge, which would be dried and used as boiler fuel.

During the inaugural ceremony at Chendurthi, Chairman, Shri Shesha Reddy recollected the humble beginning of Dodla Dairy in the year 1998 with less than 50 TLPD milk which has grown to 14 lakh LPD handling. Having presence in Uganda and Kenya, it has a turnover of ₹1700 Cr. last financial year.

KMF launches 23 new varieties of Nandini ice creams

KMF UNITS namely Mother dairy-Bangalore, Bellary and Hassan Milk Unions are manufacturing and supplying Ice cream to the markets under the brand name of Nandini, which is gaining lot of popularity among the consumers.

These three KMF Ice cream plants are manufacturing 92 varieties of Nandini Ice Cream and distributing to the market all over Karnataka through 72 wholesale dealers.

KMF is also expanding its Ice cream business in

neighboring States. Understanding the competition/consumer taste/preference/fondness, KMF launched new 23 Nandini ice cream variants on 8 April, 2019.

KMF hope that the substantial growth trend in Nandini Ice cream business will continue for the entire season. By adding the above 23 new varieties to the Nandini Ice cream basket, now the total SKUs of Nandini Ice cream has tallied to 115 varieties.



GEA introduces new high-pressure pump to enhance dairy portfolio

GEA's new high-pressure pump is based on the proven GEA Hilge HYGIA. The hygienic premium pump is designed for optimal cleanability, high stability and quality. Pumps can now also cover the pressure ranges required for membrane filtration in processing of whey. The dairy sector has become much more of a focus for GEA since the takeover of Hilge in 2015.

Major consumers of products from the newly created center of excellence for pumps in Bodenheim-where the hygienic pumps will be developed and manufactured-now include customers from the dairy industry. "There are always several pumps in the membrane filtration systems. If there is no high-pressure pump in the portfolio, the project goes to another pump supplier.

The new GEA Hilge HYGIA H high-pressure pump is designed for system pressures up to 64 bar. Currently, 40 bar is state of the art in the dairy industry. However, the trend is towards higher pressures in order to extract more valuable substances from whey. Modern membrane processes can significantly increase the added value of fractionation and concentration of whey and milk protein. A system pressure of 64 bar gives a competitive advantage.

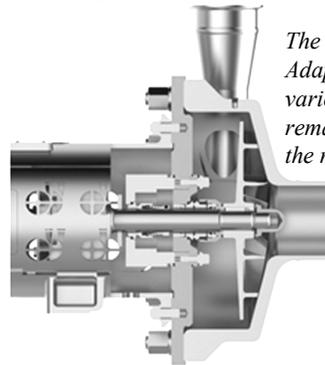
Philipp Berdelle-Hilge deliberately opted for a deep-drawn design, while many other manufacturers preferred a casted housing. Casted designs are undesirable-especially in the pharmaceutical industry-due to their surface cavities. Cleanability is negatively affected and a 3-A certification is not easily obtained. All materials have been carefully selected for their use in hygienic processes. The housings are made of forged CrNiMo (1.4404) with a high surface quality.

An additional clever feature ensures that nothing stands in the way of an international triumph for the GEA

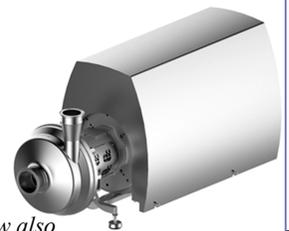
Hilge HYGIA series. Thanks to the modular design of the Adapta motor connection, the pumps can be equipped with a wide variety of standard motors, allowing them to easily meet all country-specific requirements for electric motors around the globe.

In case the motor needs to be replaced, the pump can remain in the pipeline and the entire system need not be re-sterilized or cleaned. A complete cleaning cycle can easily take one to two hours, during which the system does not produce anything and therefore does not make any money.

With the new GEA Hilge HYGIA H high-pressure pump, the group has closed its gaps in the portfolio of hygienic pumps. This enables the company to offer the milk processing industry everything from a single source. The 3-A certification of the complete series clears the way for the market entry in the USA. A well-thought-out motor connection not only allows for country-specific electric motors, but also helps to significantly reduce cleaning times and costs.



The GEA Hilge HYGIA H with the Adapta design allows for motors of various standards. The pump may remain in the system when replacing the motor.



Designed for system pressures up to 64 bar, the GEA Hilge HYGIA H can now also cover membrane filtrations in the dairy industry.

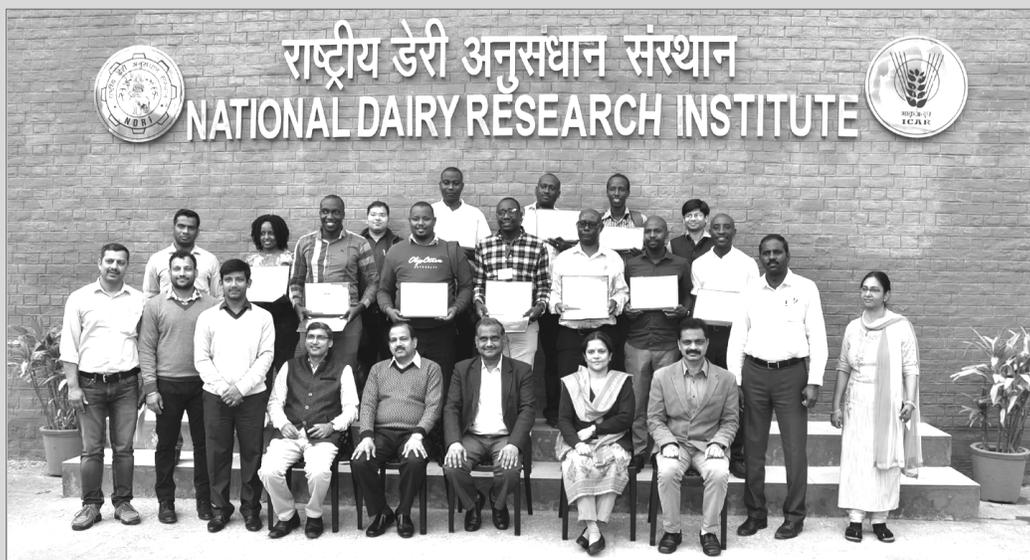
Food Licensing and Registration System rechristened FOSCOS

FSSAI, the country's apex food regulator, has decided to make it more user-friendly as stated by Ms. Pallavi Darade, Commissioner, Food and Drug Administration (FDA) Maharashtra, at a technical seminar organised in Mumbai by Association of Food Scientists and Technologists (India) (AFST[I]), Mumbai chapter, in association with FSSAI and FDA Maharashtra.

The requirement under the Food Safety and Standards Regulations, to have a license or registration, was to ensure the availability of safe and wholesome food for human consumption. Besides, the FBOs (food business operators) also need to be given a helping hand when it comes to compliance with the regulations.

Shri P. Muthumaran, Regional Director, West and South, FSSAI, said that there should be a three-way strong connection between responsible FBOs, regulators and consumers for the smooth working and voluntary compliance rather than inspectors chasing businesses. He added that a special drive for licencing, both at the Central and state levels, and registration is in the pipeline and it will be launched soon.

International training programme on “Milk and Milk Products Processing” organized at NDRI, Karnal



An International Training Programme on “**Milk and Milk Products Processing**” for Professionals from Uganda was organized by ICAR-National Dairy Research Institute, Karnal, during 4 - 18 March, 2019. A total of 10 Uganda nationals representing different farmer groups and prospective entrepreneurs attended this training programme sponsored by Indian Technical and Economic Cooperation (ITEC), Ministry of External Affairs (MEA), Government of India, which was a part of bilateral agreement made during the recent visit of our Prime Minister to African Countries. The topics covered during the training programme were processing of market milk, analysis of milk and milk products, technology of fermented milks and cheese, technology of fat rich dairy products, byproducts utilization, sensory evaluation and packaging of dairy products, animal health management, animal herd maintenance, international food regulations. Also, field visits to goat farm, biofertilizer unit and Mother Dairy, New Delhi. The participants expressed their satisfaction about topics covered during the training programme and shown interest to utilize the gained knowledge at their workplace.

Parag Milk to focus on health-based products

The company, which forayed into production of whey proteins under the Avvatar brand in 2017, is looking to launch several other products in the health and fitness segment.

According to Shri Devendra Shah, Chairman of Parag Milk Foods, health and nutrition as a category is likely to contribute to 7 per cent of its total business in the next two years. The sport nutrition market in India is estimated to be around ₹1,400-1,600 crore and growing at 25 per cent on a year-on-year basis. While the market for traditional dairy products – milk, *ghee*, *paneer* and curd - has been growing at around 15 per cent, the modern products such as UHT milk, flavoured milk, cheese and whey powder has been growing at over 25 per cent.

Parag is looking to launch whey protein powder for mass consumption in different formats. It is also exploring the possibility for rolling out colostrum products as health supplement. Parag has been growing at over 20 per cent on a year-on-year basis. It aims to achieve a turnover of ₹2,700-3,000 crore by 2020. As on March 2018, its revenue was ₹1,955 crore.

Nearly 80 per cent of its revenue comes from value-added products. The remaining 20 per cent comes from the liquid-milk business. The company has acquired Danone Foods and Beverages India's dairy factory at Sonipat in Haryana. It has installed new processing units for pouch milk, curd and paneer to be sold under the Gowardhan brand. Plans are afoot to expand the manufacturing facility by adding flavored milk, pouch butter milk, *mishti dahi* and yogurt.

INTERNATIONAL news

DuPont Achieves Major Milestone to Expand Probiotics Capacity

DUPONT has completed construction on a new, state-of-the art probiotics fermentation unit at Rochester, New York. The unit, now largest in the world, is part of a multiphase (nearly \$100 million) investment to expand probiotics capacity and enhance the company's leadership in delivering high-quality, clinically documented probiotics to dietary supplement and food and beverage manufacturers.

The fermentation unit is fully operational and will serve as a crucial resource in propagating bacteria and enabling high potency, stability and efficacy of probiotics. Quality is extremely important in probiotic production, and the fermentation unit will also optimize DuPont's production capability, enabling the company to increase the pace of delivery to customers and the market.

DuPont is a leader in probiotics, offering the widest range of clinically documented strains with its DuPont™ Danisco® portfolio to support digestive health, immune health, women's health and more. Specifically, its HOWARU® products were recognized with a series of outstanding innovation awards in 2018 from various industry organizations. The company is also leveraging its probiotics platform for the development of human milk oligosaccharides (HMOs) as part of a larger microbiome investment strategy.

