



Dairy Pulse

9th Edition



Think Dairy



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1st - 15th Mar, 2016

Dairy Pulse 9th Edition (1st to 15th, March 2016)

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Omfed's milk plant in capital faces closure

Mar 15, 2016

Source: timesofindia.indiatimes.com

The state government-run Orissa State Cooperative Milk Producers' Federation Ltd (Omfed) milk plant in Chandasekharpur here is facing potential closure as the Odisha State Pollution Control Board (OSPCB) has decided to cut short by six months the promised 18 months Omfed had been given for operationalizing its existing effluent treatment plant (ETP). An ETP is required to treat waste water generated from milk processing.

Last year in February, the pollution watchdog, during a personal hearing of Omfed officials, had given 18 months to Omfed to run the ETP. However, the board on March 8 issued a letter refusing to give the final six months to Omfed.

"Omfed had sought time to upgrade and operationalize the existing ETP and we had given them 18 months, but they haven't complied yet," OSPCB regional officer (Bhubaneswar) Hadibandhu Panigrahi said.



OMFED Premium milk

An OSPCB official, "Since Omfed hasn't taken any action to run the ETP in the past 12 months, we decided to cut short the time given by six months. Omfed will have to operationalize the ETP immediately or else it will face closure."

Omfed chairman-cum-managing director B P Sethi told TOI that they haven't received any closure notice

yet from the pollution board. “We will comply with the pollution norms within 18 months,” he said. Pollution board sources said the defunct ETP was resulting in pollution of water in nearby localities. A board official said the residual water after milk processing contains high amounts of fat and other polluting chemicals. “We tested the water samples in the area and found high levels of biochemical oxygen demand (BOD). This results in the oxygen level going down and the water smells foul,” said the officer.

Omfed’s existing ETP has a capacity to treat 200 kilo litre of water per day. But, with milk production going up, Omfed is using 400 kilo litre of water a day. Currently, the plant produces 2.5 lakh litre of milk. The pollution board had also asked Omfed to upgrade the ETP to treat 400 kilo litre water.

Over 68 Per Cent Of Milk In India Does Not Conform To Standards

Mar 15, 2016

Source:ndtv.com

Over 68 per cent of milk in the country does not conform to standards laid down by the food regulator and the most common adulterant found in it is detergent, caustic soda, glucose, white paint and refined oil considered “very hazardous” which could cause serious ailments, the Lok Sabha was informed today.

Science and Technology Minister Harsh Vardhan said during Question Hour that a new scanner has been developed which can detect adulteration in milk in 40 seconds and can even pinpoint the adulterant.

Earlier, for every type of adulteration, a separate chemical test was required. But now a single scanner can do the job, he said.



Milk Samples

There were murmurs among members when the minister suggested that these scanners could be purchased by MPs through their constituency funds.

Though the scanners are costly as of now, each test costs a mere 10 paisa, he said.

Mr Vardhan said in the near future, GPS-based technology could be used to track the exact location where the milk supplied in the cold chain has been tampered with.

There are two lakh villages in the country from where milk is collected.

In Punjab: Tough trade rules

Mar 14, 2016

Source: nyoooz.com

The Punjab Gau Sewa Commission says an estimated 1.6 lakh stray cattle are roaming the roads of Punjab . But a new amendment in inter-state cattle trade has restricted the cattle breeders from selling their cows to the neighbouring state farmers. So he abandons it leading to more stray cattle menace,” he said, speaking on condition of anonymity. “Slaughtering is the only solution to tackle stray cattle menace. Cattle buyers from neighbouring states and north-east states preferred purchasing of crossbred cows from Punjab.



Cow breed

GADVASU is flooded with farmers’ queries on how to deal with stray cattle and increasing infertility among the cattle, especially Holstein Friesian (HF) cross-bred. GADVASU is flooded with farmers’ queries on how to deal with stray cattle and increasing infertility among the cattle, especially Holstein Friesian (HF) cross-bred. A study undertaken by Punjab Agricultural University (PAU) says new rules on cattle transportation and trade of cows in Punjab has aggravated problems for dairy farmers with sinking inter-state cattle breeding trade, increasing infertility, stray cattle menace and bribery for getting transportation documents. The Punjab Gau Sewa Commission says an estimated 1.6 lakh stray cattle are roaming the roads of Punjab . The extension department of Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) is flooded with farmers’ queries on how to deal with stray cattle menace and increasing infertility among the cattle, especially Holstein Friesian (HF) cross-bred, and solutions to dispose them as now abandoning cows may also invite two years of jail term as per proposal of Gau Sewa Commission to the state government. The PAU study, conducted by the its department of business studies titled ‘Marketing Practices and Problems of Cattle Breeders in Punjab: With Special Reference to Inter State Trade Regulation, said that new documentation process for inter-state cattle transport,

harassment by officials, reduced cattle prices due to less demand, threats to their lives from self-styled cow protection groups, etc. are the major problems which farmers in Punjab are facing currently. Following the responses from 150 cattle breeders in Punjab, it was found that only 9 per cent of them participate in cattle fairs and exhibitions outside Punjab mainly due to the tedious process of getting certificate from deputy commissioner and vet officer (which takes almost 15-20 days). "The state has 18.24 lakh female exotic/cross-bred cattle, of which 11.34 lakh are adult milch cows.

Cattle buyers from neighbouring states and north-east states preferred purchasing of crossbred cows from Punjab. But a new amendment in inter-state cattle trade has restricted the cattle breeders from selling their cows to the neighbouring state farmers. Punjab farmers are losing market and prices of cattle have fallen," said Gurbir Singh, a PhD scholar at PAU, who has co-authored the study with guide Assistant Professor Sukhmani. With 80 per cent of cattle in Punjab being high maintenance cross-breeds, the state dairy farmers say they are facing a serious financial threat because of the continuing fall in the price of milch cattle.

National Agmark Expo underway

Mar 14, 2016

Source:thehansindia.com

The campus of Siddhartha Law College in Kanuru turned into a place of activity when the National Agmark Exhibition was inaugurated on Monday. Students enthusiastically took part in learning how a food adulteration test is conducted to determine its quality.

The three day expo which is organised by the Directorate of Marketing and Inspection of Ministry of Agriculture and Farmers Welfare in association with the Siddhartha law College was inaugurated by the Director of Agricultural marketing P Mallikharjuna Rao.

Speaking on the occasion, Mallikharjuna Rao spoke on how the government's certification 'Agmark' is important for any product that is qualitative. "Today, half of the commercial market is flooded with low quality products ranging from spices to edibles and preparatory.

It is advisable for public to look out for a certification mark before purchasing necessary ingredients, since many of the products in oils, spice powders, ghee, and milk products besides other processed flours which are certified are available in the market," he said.

He also added how the certification of food products and the commodities will help farmers and manufacturers to retain customer base and earn more rewards. A demonstration of the food testing, quiz competition for the students were held during the inaugural day.



Dairy Foods

The administration of the Law College is also set to organise cultural and technical competitions for the students on Tuesday on the occasion of World Consumer Rights Day.

A few stalls displaying certified products in spices, honey, ghee, dairy products, and tribal made natural products were set up at the compound. The concerned department also organised a stall that differentiates between original and the adulterated edible ready snacks and spice powders including that of pulses and peanuts.

Assistant food controller Nutalapati Poornachandra Rao, K Seshadri of Legal Metrology department, Siddhartha Academy president N Venkateswarlu, Law College convener T Srihari Rao, principal Ch Divakar Babu, and others were present during the programme.

KVASU to promote dairy-based groups

Mar 13, 2016

Source:thehindu.com

After scripting a success story in facilitating a profitable farmer producer company among rural women in the livestock sector of Kannur district, the Kerala Veterinary and Animal Sciences University (KVASU) is preparing to replicate the model in other parts of the State.

The varsity has associated itself with the first livestock-based farmer producer company in Kannur, launched by the district Kudumbasree Mission last year under its “Samagra goat village” scheme to

ensure the sustainability of its members through innovative techniques to face the market challenge and create a space and identity in the market.

The Directorate of Entrepreneurship of the university had organised a survey last year regarding areas of intervention required for scientific goat farming among rural women self-help groups.

“Following the survey and capacity building programmes, the university is intervening in different areas of goat production including breeding, feeding, management, disease control and marketing,” T. P. Sethumadhavan, the Director of Entrepreneurship of KVASU, said.

Separate groups were trained so as to provide timely support to the clusters of goat-based commodity interest groups of Kannur Goat Producers Company, Deepa Ananth, the principal investigator of the project, said.



Dairy Farming

“The company has so far been able to organise three goat markets. It has 800 women goat farmers now, and each member gets an average income of Rs.60,00 a year,” she said .

“We are planning to replicate this model in appropriate areas across the State. Dairy-based commodity interest groups will soon be established in Idukki district to support the women self-help groups involved in dairying,” Mr. Sethumadhavan said.

Varsity supports farmer producer company among rural women in Kannur

FSSAI launches scheme of research & development studies for food quality and safety

Mar 12, 2016

Source:fnbnews.com

The Food Safety and Standards Authority of India (FSSAI) has decided to support innovative R&D proposals with respect to food safety and quality control by providing financial assistance to institutes-organisations to undertake research proposals on food safety.

According to FSSAI, this will enable it to generate knowledge that would help in continuously updating and upgrading food safety standards which are compatible with international standards and also to carry out evidence-based studies for improving or building policies. FSSAI has already identified some 14 subjects related to various aspects of food safety.

The subject related to hygiene, traceability, sampling and testing methods, safety aspects of novel foods, study of chemical contaminants, radiological safety of food, toxicology, risk communication, good practices, nutritional composition, food law enforcement, quick testing methods were amongst the other areas identified for research study.

The tenure of a project would be three years for R&D related projects while FSSAI will support the grantee institution for the approved project with a financial aid upto Rs 50 lakh. The projects will be reviewed by the apex food regulator every five years.

An official privy with the development stated that it was part of FSSAI's effort to streamline the regulatory framework which had accelerated in recent times. "The scheme would help in continuously updating and upgrading food safety standards compatible with international benchmarks and carry out studies for improving or framing policies," informed a notice in this regard, released by FSSAI.



Milk procurement

The apex food regulatory body has urged the eligible organisations including academic institutions & universities, publicly-funded R&D laboratories, both in Central & state governments, in-house R&D units & Scientific and Industrial Research Organisations (SIROs) recognised by Department of Science and Industrial Research (DSIR) and so on to take part in this effort.

The institutions can do projects based on studies and research & development.

Explaining the projects, FSSAI stated that there would be push type projects wherein the body will identify the project based on needs while another is called pull type project wherein the body will indicate the broad areas of interest to the authority and solicit projects.

These projects will be monitored by a three-member committee which will be selected from the scientific panels.

Milk Mantra dedicated Moo Courts in Cuttack

Mar 12, 2016

Source:orissadiary.com

With a strong belief in nourishing truly pure living – one aspect is having Truly Pure milk nutrition which milk mantra brings for consumers through its Milky Moo and Mooshake brands of functionally innovative products.

The second aspect is of leading a healthy and active life-and to inspire children to do both these, Milk Mantra has created a sportive environment meant to bring out the best in tennis players of Cuttack by sponsoring two synthetic turf courts to Cuttack District Tennis Association (CDTA).

The turfs laid with internationally reputed ‘Rebound Ace’ technology of Australia are aptly called the Moo Courts. The two courts; Moo Court 1 and Moo Court 2, were inaugurated by the Honorable Principal Secretary, Home Department, GoO, Asit Kumar Tripathy (IAS) in presence of Additional D.G. of Police (Hdqrs), Cuttack, Odisha, Satyajit Mohanty and Milk Mantra Founder & MD Srikumar Misra.

“Odisha in past has created many sports persons of international repute which shows the ability of our youth. By sponsoring this excellent infrastructure, Milk Mantra has contributed towards sports”, stated Principal Secretary, Home Department, GoO, Asit Kumar Tripathy (IAS). The newly laid synthetic surfaces are laid with internationally reputed Rebound Ace technology of Australia on which the Australian Grand Slam is being played. One of the primary advantages of these synthetic turfs is, these are softer, more forgiving nature of the surface but with lower maintenance than expected on most soft turfs.



Milkmantra

Appreciating the initiative of Milk Mantra & CDTA in love of tennis Additional D.G. of Police (HdQRS), Cuttack, Odisha Satyajit Mohanty stated, “tennis had a long and glorious past in the millennium city of Cuttack. A complex of seven Tennis Courts with excellent coaching facilities was there in seventies and eighties. The players representing the State in the seventies and eighties were product of the old complex.” I hope, this world class infrastructure will bring back the lost identity of Cuttack Tennis, he added.

Speaking on the occasion, Srikumar Misra, Founder & MD of Milk Mantra said, “Tennis is a game to showcase individual prowess and with excellent turfs to practice and play on, individuals, especially young children, would get an environment which will inspire them to hone their skills.

CDTA and Milk Mantra share the philosophy to create such an environment and Moo Courts have been branded bringing in global design, fresh thinking and inspiration for everyone who loves the sport of tennis. I am sure, these turfs will definitely guide the tennis loving young kids in right path to represent Odisha and India in International forums”, he added.

Many tennis lovers including veteran players, coaches and young players were also present at the CDTA campus. A exhibition match was also played after the inaugural ceremony.

AERC to study potential for dairy industry in east

Mar 11, 2016

Source:timesofindia.indiatimes.com

Vallabh Vidyanagar based Agro-Economic Research Centre (AERC) will study the status of dairying in the eastern states of the country. The study will also assess the potential to improve socio-economic status of the milk producers of selected states of the country.

Based on a request made by the Anand-headquartered National Dairy Development Board (NDDB), the Ministry of Agriculture and Farmers Welfare of Government of India has sponsored the study with AERC being designated as lead institution to carry out the coordinated study in the states of Assam, Bihar,

Chhattisgarh, Jharkhand, Odisha, 27 districts of eastern Uttar Pradesh and West Bengal.

In this regard, an all India workshop was held at AERC on Friday which witnessed participation by directors and representatives of AERC Jorhat, Bhagalpur, Waltair, Jabalpur, Allahabad, Vishwa Bharati and officers of NDDB.



Milk

“Like the Government of India’s programme – Bringing Green Revolution in Eastern India – a similar focused programme for the dairy sector could also be considered,” NDDB chairman T Nanda Kumar, said while inaugurating the workshop.

He hoped that outcome of the study would be helpful in formulating appropriate policy leading to accelerated dairy development in the eastern region of India.

“The spatial growth in milk production in the country has not been evenly distributed. NDDB analysis suggests that eastern part of the country has not kept pace with the growth achieved elsewhere in the country. This appears paradoxical as eastern region has relatively superior resource endowment like availability of fodder, water, irrigation, manpower, etc required for promotion of milk production,” a release issued by NDDB said, adding that it believes that a focused program for accelerating growth in milk production in the eastern region should be implemented.

3000 ltr capacity milk processing plant commissioned in Ganderbal

Mar 10, 2016 Source: risingkashmir.com

Vice-Chancellor SKUAST-Kashmir Prof. Nazeer Ahmad inaugurated milk processing plant at Mountain Livestock Research Institute in Ganderbal on Thursday.

The plant has the capacity of 3000 liters with processing rate of 500 liters of milk per hour. The institute is producing 500-800 liters of milk daily at its own and around 2200 liters of milk shall be procured from nearby milk producers for processing purposes. The milk will be available in half kilogram pouches.

This milk processing plant will serve to promote dairy technology skills, entrepreneurship, knowledge and marketing skills through meaningful hands on experience.

It would also promote quality of milk and avoid economic losses to farmers besides manufacturing various milk products to make it available for the domestic market and above all attracting unemployed educated youths to take milk processing unit as profession for employability and livelihood opportunities.

This plant is sanctioned by Indian Council of Agricultural Research, New-Delhi under Experiential Learning programme, a project conceived by Dr. Tarun Kumar Sarkar, Senior Scientist In charge of the Institute at Manasbal.

Speaking on the occasion, Vice-Chancellor laid emphasis on workers for maintaining proper cleanliness and hygiene in the plant. He also complimented the Scientist and the staff for this achievement.



Cow breed

The institute is engaged to improve elite Jersey cattle through USA germplasm and bull calves are being supplied to Livestock Development Board for breeding purposes to improve milk productivity in Kashmir valley.

Vice-Chancellor desired that all parameters related to hygiene need to be observed in the plant while processing and marketing the product.

Present on the occasion were Director Extension, Dean Faculty of Veterinary Sciences & Animal Husbandry, Estates Officer, Associate Director Research (Agriculture) Associate Director Research (Animal Sciences), Heads of the Divisions of the Veterinary Faculty, Scientists of the university, progressive farmers of the district and milk producers.

Imported chocolates are contaminated

Mar 10, 2016

Source:fnbnews.com

Chocolate is regarded as the world's most popular snack food or gift. An average American consumes over 4 kg of chocolate annually, while in Switzerland, the world's leading chocolate producer, a Swiss

consumes over double this amount. Indians also have a sweet tooth, and consume considerable amount of sweets, including chocolates.

However, it has recently come to light that chocolates can become contaminated, in spite of the fact that they have been consumed for centuries without any complaint or apparent ill-effect. Some of these contaminants are discussed in the article.

In fact chocolates hold a special place in celebrations as they are not only eaten but are gifted to a whole lot of friends and relatives. Corporates have special chocolate packages made to gift to employees, associates and clients especially for festive season. However, not everyone is aware that chocolates can be contaminated or adulterated just as easily as other food stuff. In fact adulteration in chocolates has a long history and since they are a very popular food item, they have been adulterated by unscrupulous manufacturers for profits for centuries.

Imported chocolates have unique problems

Branded chocolates as well as the homemade chocolates have seen a spurt in sale in the recent years because of rising incomes. The market for chocolates is one of the fastest-growing in India. Urban populations prefer them over traditional Indian sweets. India has a few chocolate manufacturers but a lot of chocolates are imported. Imported chocolates most often are intolerant to India's heat and with lack of cold storage conditions they melt and deteriorate which could then become a source of microbiological contamination, if not stored in the right temperature.

Some leading brands in the US had their products contaminated with cadmium and/or lead. The products that were contaminated with cadmium alone included the following: Scharffen Berger Semisweet Fine Artisan Dark Chocolate; Scharffen Berger Extra Dark Fine Artisan Dark Chocolate; Dove Silky Smooth Dark Chocolate Bar; See's Candies Premium Extra Dark Chocolate; and Ghiradelli Intense Dark 72% Cocoa Twilight Delight Chocolate Bar.

Lead was the only contaminant in Godiva Chocolatier 50% Cocoa Dark Chocolate Sea Salt.

Both lead and cadmium were present as contaminants in the following products: Dagoba Organic New Moon Rich Dark Chocolate; Lindt Excellence 85% Cocoa Excellence Extra Dark; Ghiradelli Chocolate Premium Baking Bar 100% Cocoa Unsweetened Chocolate; Godiva Chocolatier 85% Cocoa Extra Dark Chocolate; Godiva Chocolatier 72% Cocoa Dark Chocolate; and 365 Everyday Value Organic Dark Chocolate.

Although the above list is not exhaustive, it is evident that lead and cadmium combination is the leading contaminant in these chocolate products.

According to FSSAI standards, chocolates are not permitted to contain any vegetable oil and fats except cocoa butter. However, Codex permits 5 per cent vegetable fat in chocolates but a lot of chocolate manufacturers allegedly add more than 20 per cent vegetable fat in the chocolates. Recently, FSSAI has published a proposed draft that will regulate sugar, salt and fat content in food products which would be applicable to beverages as well as confectionery items like chocolate to prevent health hazards like obesity in children.



chocolates and candies

Contamination in homemade chocolates

A lot of people make chocolates at home as a home-based industry. These chocolates are particularly favoured during festive season. While homemade chocolates are very popular in some cities, they might not be regulated unlike chocolates made by leading chocolate manufacturers. There is no way to determine if those making chocolates at home have the licence to make these products. Since they come under the unorganised sector there is no way to determine if they are following the hygiene requirements as laid down in the FSSAI regulations.

These chocolates could be subject to bacterial contamination like salmonella unless the raw materials like skim milk powder, milk, eggs, and cocoa have been adequately heat-treated, pasteurised and handled to keep them free from bacterial contamination.

Personal hygiene is a major problem, especially since many chocolate products are finished by hand-dipping.

Cocoa beans, nuts and other ingredients can be contaminated by insects, rodents, and mycotoxins unless stored properly.

If the machinery is not cleaned and washed thoroughly and sanitised it could lead to infestation by insects or microbial contamination.

Lead and cadmium contamination of chocolates

Contamination can result from heavy metals such as lead and/or cadmium. Scientific studies indicate that lead present in the air can be absorbed by the cocoa plant which is the main ingredient of chocolate and chocolate products. Lead can cause serious health problems in young children, as studies by the All

India Institute of Medical Sciences (AIIMS), New Delhi, has found. Cadmium can also be a serious health hazard as it can have cardiovascular effects, renal damage, developmental defects in foetus, as well as cause skeletal lesions.

Contamination of cocoa, the major ingredient of chocolates and chocolate products

Since cocoa is the main ingredient in chocolate it has been a subject of study. Cocoa when dried loses its volume by about half. Therefore unscrupulous chocolate manufacturers mix cocoa shell powder, hazelnut shell powder or soya flour into cocoa powder to add bulk. This product is inferior or substandard as it has been intentionally adulterated. An unintentional contaminant in cocoa comes from iron. Modern cocoa processing causes this iron contamination because of the grinding tools of the hammer, agitator blades and ball fillings which make up the rotating ball cocoa mills. Though the iron is removed with the help of magnet separators yet iron can remain in the cocoa powder which contaminates products made from cocoa including cocoa powder and chocolates. Sometimes cocoa beans can become mouldy during fermentation, incorrect drying and storage in humid conditions because fungi can grow on them. The cocoa beans can also be infested by pests which can lead to microbiological contamination and these get processed into the chocolate.

Other unintentional ways of contamination of chocolates and chocolate products

Unintentional contamination of chocolates can also arise from carelessness and lack of hygienic practices during Manufacture; Packaging; and Storage.

In each of the above stages, contamination can occur through insect body parts; rodent hair; and rodent droppings.

These modes of contamination can lead to serious health consequences. Therefore, stringent quality control measures need to be in place during the entire process from cultivation of beans to manufacture into chocolates and chocolate products.

Intentional adulteration of chocolates and chocolate products

Intentional adulteration is done by unscrupulous businessmen for financial gain. These can occur in the following ways:

Sugar & Cocoa: Inferior quality sugar and cocoa for making chocolates.

Starch: Sometimes starch is used during the manufacture of chocolates.

Minerals: These are often added to increase the bulk and weight of the final product.

Artificial Colours: Sometimes, non-permitted artificial colouring can be used to impart an attractive colour to the chocolates, but which can cause serious health consequences.

In Conclusion

It is quite clear that the all-time favourite – chocolates can also be contaminated which is a real threat to our health. Since, young children consume large quantities of chocolates it is important to safeguard their health. Therefore, chocolate manufacturers should take the utmost care in maintaining high standards of quality. Moreover, standards and regulations must be followed so consumers can be provided with safe chocolates and chocolate products.

PDFA and CLFMA organised "Dairy Business 2020" to set vision for future of Dairy farming in Punjab

<http://www.cityairnews.com/>

Author(s):

[City Air News](#)



Ludhiana, March13, 2016: The Progressive Dairy Farmers Association (PDFA) and Compound Feed Manufacturers Association (CLFMA of India) together organised a one day seminar called "Dairy Business 2020" at the Guru Nanak Bhawan today.

Chief guest Sh.Manjit Singh Brar, MD, Milkfed Punjab, appreciated the farmers for the use of innovative techniques and technology in Farming. Mr S V Bhave (Deputy Chairman) and Dr Phalke (Secretary) represented CLEFMA on this occasion.

Main objective of the seminar was to align the efforts of farmers to reach the vision 2020 of 195 mn metric tons of milk.Speaking on the occasion, Mr Brar committed uniform milk price to milk producers of the state and ensured them timely solution of their problems.

Various eminent speakers equipped the farmers with knowledge on various aspects of dairy farming Dr Gangawane , Nutrition expert, Mr. Alain Reocrex, consultant , OLMIX; Dr Dana, Research Nutritionist , Zinpro.

Mr. Daljit Singh, President, PDFA said, “PDFA has always asserted the importance of equipping its members with the know how to improve their efficiency. Dairy farming today is fraught with a lot of challenges and shortcomings. Only by right knowledge and effective implementation of techniques and technology to improve the productivity, can the farmers reach the target of 195mn metric tons by 2020.”

He also discussed the road map made by PDFA and CLEFMA to overcome problems of Dairy farmers especially cost of production of Milk and exemption of extra tax taken by Govt on entry of feed ingredients in the state.

Mr Bhave motivated the farmers to take up dairy farming as a full time profession to meet the 2020 target. He also spoke about the joint effort to be done by PDFA and CLEFMA for reduction in import duty of Dairy equipment.

Date:

Sunday, March 13, 2016

TOP NEWS

FSSAI launches scheme of research & development studies for food quality and safety

Saturday, 12 March, 2016, 08 : 00 AM [IST]

Ashwani Maindola, New Delhi

<http://www.fnbnews.com/Top-News>

The Food Safety and Standards Authority of India (FSSAI) has decided to support innovative R&D proposals with respect to food safety and quality control by providing financial assistance to institutes-organisations to undertake research proposals on food safety.

According to FSSAI, this will enable it to generate knowledge that would help in continuously updating and upgrading food safety standards which are compatible with international standards

and also to carry out evidence-based studies for improving or building policies. FSSAI has already identified some 14 subjects related to various aspects of food safety.

The subject related to hygiene, traceability, sampling and testing methods, safety aspects of novel foods, study of chemical contaminants, radiological safety of food, toxicology, risk communication, good practices, nutritional composition, food law enforcement, quick testing methods were amongst the other areas identified for research study.

The tenure of a project would be three years for R&D related projects while FSSAI will support the grantee institution for the approved project with a financial aid upto Rs 50 lakh. The projects will be reviewed by the apex food regulator every five years.

An official privy with the development stated that it was part of FSSAI's effort to streamline the regulatory framework which had accelerated in recent times. "The scheme would help in continuously updating and upgrading food safety standards compatible with international benchmarks and carry out studies for improving or framing policies," informed a notice in this regard, released by FSSAI.

The apex food regulatory body has urged the eligible organisations including academic institutions & universities, publicly-funded R&D laboratories, both in Central & state governments, in-house R&D units & Scientific and Industrial Research Organisations (SIROs) recognised by Department of Science and Industrial Research (DSIR) and so on to take part in this effort.

The institutions can do projects based on studies and research & development.

Explaining the projects, FSSAI stated that there would be push type projects wherein the body will identify the project based on needs while another is called pull type project wherein the body will indicate the broad areas of interest to the authority and solicit projects.

These projects will be monitored by a three-member committee which will be selected from the scientific panels.

Dairy companies: Focus on premium products to boost earnings

Mar 9, 2016

Source: business-standard.com

Since the Budget announcement, shares of Kwality and Prabhat Dairy have run up 23 per cent and 47 per cent, respectively, compared to the Sensex's six per cent gain. However, Hatsun Agro Products hasn't seen much gains. These stocks cheered the government's allocation of Rs 850 crore to four dairy projects over the next three-five years. The allocation, which comes after a few years, is aimed at shoring up productivity of cows. Since most companies source milk directly from farmers or via vendors, they will benefit on sourcing front.

Hatsun, Kwality and Parag Dairy have also stepped up focus on value-added higher-margin dairy products such as flavoured milk, paneer, curd, ghee, and butter, which will aid their revenue and margins. Lower penetration of organised firms (only 20 per cent) is another positive. With more and more consumers becoming brand and health conscious, these firms will benefit.

On business, both Kwality and Prabhat Dairy are focusing on increasing revenues from the retail or B2C (business to consumer) segment, against being largely B2B (business to business) firms historically. Kwality, which gets 31 per cent of its domestic revenues from the B2C segment, aims at launching more value-added products for this segment, and is investing Rs 525 crore in setting up a plant for this and growing its milk-procurement infrastructure. Prabhat Dairy is betting highly on the horeca (hotels, restaurants, and catering) segment and launching products such as matka dahi, cheese and shrikhand to drive growth in the B2C segment.



Prabhat Dairy

While the focus on B2C is positive, the B2B segment of these companies continues to witness healthy traction. Hatsun, too, is looking to launch premium products and further strengthen its market position in south India. Volatility in raw milk prices and competition are the key downside risks for these companies.

Most analysts are positive on these three companies due to their strong business prospects. While they expect returns of 20-22 per cent for Kwality and Hatsun, Prabhat Dairy's trailing 12-month PE (price-earnings ratio) at over 100 times indicates expensive valuations.

KVASU to Launch Precision Farming to Boost Dairy Farming Sector

Mar 9, 2016

Source:newindianexpress.com

Kerala is known for its heavy beef consumption, but decreasing productivity in the farm sector is taking its toll on the bovine population which registered about 45 per cent decline in the last one decade.

Taking note of it, the Kerala Veterinary and Animal Sciences University (KVASU) is on a mission to increase performance by launching precision farming among dairy farmers.

A varsity study has revealed a serious nutritional imbalance in the cattle population based on the geographical terrains they belong to. For instance, a study on the mineral status of soil, fodder, feed and blood of animals in Chittoor, Palakkad, showed adequacy in iron and calcium content and high deficiency of zinc in fodder and blood of animals, said Dr Deepa Ananth, assistant professor, and principal investigator of the project on Precision Nutrition, KVASU.

The farmers were given mineral mixtures developed by the varsity which has improved the health of the animals.



Dairy farming

The study found that adopting precision farming which involves optimising the resources of feed, breeds, water, and other inputs for enhanced productivity can address the nutritional imbalance effectively and enrich dairy products, she said.

KVASU's Department of Animal Nutrition has developed a ration balancing software 'Ksheeraprabha', which will decide the nutrient requirements of an animal in terms of dry matter, digestible crude protein and total digestible nutrients.

The software will be widely publicised among farmers and self-help groups through Department of Dairy Development and Milk Co-operatives, said T P Sethumadhavan, Director of Entrepreneurship, KVASU.

Dr Chandrankutty, Director, Animal Husbandry Department, told 'Express', a healthy cow yields around 9 litres of milk, which was 7 litres a few years ago. "Modern farming techniques like precision farming can help raise the yield to 11 litres a day, enough to stop dependence on neighbouring states," he said.

In Kerala, cattle population is around 14.5 lakh, of which around 7 lakh, including cow, buffalo and goat, yield milk. About 85 per cent of Kerala's milk requirement is met by domestic production and milk dependence on other states is around 1.5 to 2 lakh litres per day," he said.

"Precision farming can help increase size of a cattle which is now 300-350 kg. The beef consumption in Kerala was over 2,50,000 metric tonnes last fiscal," said officials.

DMS incurs losses worth Rs 842.57 cr till FY15

Mar 8, 2016

Source:business-standard.com

The Delhi Milk Scheme (DMS) has incurred losses of Rs 842.57 crore since its inception in 1959 up till last fiscal, mainly due to under utilisation of its plant capacity, Parliament was informed today.

Last year, the Cabinet had given the go-ahead for corporatisation of state-owned DMS.

The government has decided to hand over operations and management of DMS to a suitable agency on lease basis for 30 years, Minister of State for Agriculture Mohanbhai Kundariya said in a written reply to Lok Sabha.

"DMS has accumulated losses of Rs 842.57 crore since its inception up to March 31, 2015. The reason for losses may be primarily attributed to its under utilisation of plant capacity," Kundariya said in the reply.

He also informed that in last fiscal, the company has earned a net profit of Rs 6.65 crore.



Delhi Milk Scheme

DMS has milk production and packaging capacity of 5 lakh litres per day, besides a network of 1,298 outlets in the NCR.

It was set up in 1959 with the primary objective of supplying wholesome milk to Delhi citizens at reasonable prices as well as for providing remunerative prices to milk producers.

DMS has been procuring raw/fresh milk from Punjab, Haryana, Uttar Pradesh, Rajasthan and Bihar.

Besides processing and supplying milk, DMS is also manufacturing and marketing yogurt, ghee, butter, paneer, butter milk and flavoured milk.

GCMMF's bid to ignite operation flood in J&K

Mar 8, 2016

Source:indiancooperative.com

The GCMMF experts are quoted as saying they will soon introduce additional machinery at the plants in Chesmasahi, in Srinagar and Satwari in Jammu to ramp up the processing capacity of the dairy plants, reports local news out Kashmir Reader.

It further says technical experts from Gujarat cooperative milk marketing federation have been helping since 2004 J& K milk producers cooperative modernize its milk processing infrastructure as well as implement the cooperative model to benefit dairy farmers.

Sources say the cooperative model that is being used in J&K will promote welfare of farmers. Dairy farmers will be provided with quality cattle feed as well as veterinary consultation, sources add.

Merial , Zoetis enter into strategic agreement for dairy products in India

<http://www.newkerala.com/news>

IBNS



Kolkata/Mumbai, Mar 7 : - Merial, the animal health division of Sanofi, and Zoetis India Limited, a subsidiary of Zoetis Inc, on Monday announced that they have entered into an exclusive marketing and distribution agreement for medicines and vaccines for Dairy cattle in India.

Merial will market and sell Zoetis products, including global/local brands such as Bovical, Lutalyse, Xnel Dectomax and vaccines like Rispoval and Spirovac.

The products will be marketed by Merial India beginning in April 2016. Financial details of the agreement were not disclosed.

The newly added products complement Merials existing ruminant business in India, which includes vaccines, therapeutics and nutritionals. It increases our presence in the important dairy segment and expands our current product offerings. We now have a robust portfolio that has strong customer loyalty, making us a key player in the rapidly growing India ruminant market, said Sandeep Karkhanis, Country Manager, Merial India. For Merial, this agreement reinforces the strategic importance of India and the animal health market in the country. We plan to keep our focus and investment in product innovation, acquisitions and alliances, growth areas and services to meet the evolving needs of our customers.

In India, Merial has a diversified local portfolio of over 50 brands comprising of vaccines, therapeutics and nutritional products for ruminants, poultry and pets.

Ketan Dhamanaskar, Managing Director, India, GM South Asia, Zoetis, added This agreement helps both companies use the strengths of our product portfolios and market strategies to grow in a more effective way. Zoetis leading dairy brands and innovative vaccines, combined with the strong distribution reach and presence of Merial in India, will enable us to make these products available in the most efficient

manner in the Indian market. As a result of this arrangement, Zoetis India Limited will also be able to focus its field force and resources on building a stronger presence and market leadership in the Poultry and Companion Animal sectors in India, which grew at 18.6% and 12.8% respectively in 20155.

Amul starts bio-CNG generation plant

Mar 7, 2016

Source:timesofindia.indiatimes.com

The Kaira District Co-operative Milk Producers Union Limited popularly known as Amul Dairy has become the first in India's food industry to start a fully automated bio-CNG generation and bottling plant to utilize energy from its plant's waste.

Earlier, the dairy union used to flare the biogas into the atmosphere by burning it. While burning raw biogas some elements like carbon dioxide and hydrogen sulphide used to get released into atmosphere harming the environment.

But a few months back as part of its green initiative, Amul decided to reutilize the biogas and adopted medium pressure swing adsorption (MPSA) technology to convert biogas into bio-CNG.

"We are the first in the dairy sector as also the food industry of the country to design, install and commission such a technology along with our Ahmedabad-based technical partner Atmos Power Private Limited," said Amul Dairy's managing director Dr K Rathnam.

For every litre of milk that is processed at the dairy, one litre water (two million litre a day) is used for chemical cleaning of plant and machinery. This water has residual milk solids which earlier emitted 2,500 cubic metre of methane per day with 60 to 65 % purity.

Now, the raw biogas from digesters is first collected in double membrane raw biogas balloon having capacity 1,000 cubic metre. From raw biogas balloon, it is transferred for purification.



Amul

MPSA tower is used for further purification and then passed to surge tank for storage of purified bio-CNG having more 93 percent of methane content.

From surge tank, it is transferred and stored into another double membrane purified biogas balloon having capacity 1000 cubic metre. Finally, it is compressed and filled into cylinders for use.

“Purified biogas is as good as CNG having more than 93 percent of methane content. We have started using the purified biogas at our food complex at Mogar,” said Rathnam.

The co-operative has invested Rs 1.75 crore for implementing this technology. “After deducting our investment, we are saving Rs 25 per cubic metre of gas which is a saving of Rs 12 lakh per month,” he said, adding that the payback period is less than two years. “In the process, we are helping protect environment.”

Mama Mia eyes dessert-dairy FMCG biz

Mar 7, 2016

Source:timesofindia.indiatimes.com

Following its decade-long dessert drive in the City of Joy, gelato chain Mama Mia Foods is planning to taste other dairy-based domain in both restaurant and retail formats across India. The dessert maker is also embarking on a pan-India mission with a focus on FMCG distribution of its own pre-packaged products. Being the first mover in the frozen dessert quick service restaurant (QSR)-cum-FMCG ‘take home’ segment, the gelato brand will be available in the 500ml tub from multiple organized sector retailers in the coming months.

Mama Mia, owned by young entrepreneur duo Adhiraj Thirani and Akshat Singhania, has launched four new stores in the Delhi NCR region with an exclusive tie-up with PVR Cinemas bringing its total outlet count to 17 across three states — West Bengal, Delhi and UP. “In terms of number of outlets or business, we want to grow 100% year on year. By 2016-end, the store count will be 28. We want to add 5-10 company-owned outlet/kiosk each year,” Thirani, director, Mama Mia. The firm has launched a franchise model and is keen on collaborating with entrepreneurs focused on investing in scalable businesses. It takes Rs 25-30 lakh to set up each Mama Mia store.

For the ambitious expansion drive, the mid-premium player in the dessert market is trying to tap fresh investment from fund houses and angel investors. “We are already in talks with Calcutta Angel Network (CAN), Indian Angel Network (IAN) and Mumbai Angels,” said Singhania.

Mama Mia, which started its journey in Kolkata in 2005, took a leap by clinching a tie-up with INOX, opening new outlets, kiosks and introducing novel concepts of frozen cakes and patisserie line as well as a unique retail concept of ‘gelato ATM’.

The new faces of Mama Mia since it changed hands in 2014 — Thirani and Singhania — have zeroed in on innovation and promoting the brand as the one-stop dessert destination for experimental as well as basic flavours.



varieties of icecream

Mama Mia has also introduced specialty products such as zero sugar gelato, a premium offering for customers with sugar sensitivity, which they claim tastes better than anything on the market. “Breaking away from the monotony of vanilla and strawberry, we try to plate up innovation. We also have additional plans of opening up more than ten outlets across the NCR over the coming year,” signed off Thirani.

Also in the works is a home delivery model “Gelato Pronto”. Be it new gourmet creations or the old favourites, innovation with gelato and utmost dedication to quality has always been the mantra for Mama Mia!

“Our focus towards providing premium products superior in terms of health (gelato has 4-6% of fat content compared to 16% in normal ice creams) and quality has always been a core value,” added Singhania.

How safe is your milk to drink?

Mar 6, 2016

Source:indianexpress.com

India is today the world’s largest producer of milk thanks to the white revolution. Yet more than two thirds of the milk in India does not meet the food safety standards. Adulteration of milk is rampant, a startling six per cent of the samples tested in 2015 by the Ministry of Health had presence of ‘detergents’ in them confirming that ‘synthetic milk’ is a huge problem.

For a lay person trying to differentiate between contaminated and pure milk is a tall order and only specific chemical tests can reveal the truth. Contaminated milk can be a huge health hazard especially when it has been laced with urea, detergents and other toxic chemicals. With the festival of Holi round the corner, it is time to be alert about the dangers of milk contamination.

Now a cheap milk testing kit has been developed by the Defence Food Research Laboratory (DFRL) in Mysuru, which is a part of the gigantic Defence Research and Development Organisation (DRDO). This kit, which even an untrained person can use at home, helps within minutes detect contamination of six common adulterants in milk. Recently as part of another initiative, Union Minister for Science & Technology and Earth Sciences Harsh Vardhan unveiled another dedicated system for the detection of

adulteration and analysis of milk, developed by Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani. According to Vardhan, “The gravity of the situation had been such that the National Institute for Transforming India (NITI Aayog) identified the problem of detecting adulteration in the milk within three minutes at Rs 4 or less, as one of the grand challenge areas being considered under the ‘Atal Innovation Mission’. In this backdrop, the Vardhan appreciated the initiative of CSIR for developing and deploying this technology solution, ‘Ksheer-Scanner’, which instantaneously detects the above-identified adulterants in milk. It is a low-cost portable system with user-friendly features. It enables detection of contaminants in just 40-45 seconds at the per sample cost of less than 50 paise. Earlier, Union Agriculture and Farmers Welfare Minister Radha Mohan Singh while speaking at National Dairy Research Institute, Karnal, Haryana said, “India stands first on global milk product scenario. Milk production has been increased from 137.68 million tonne in 2013-14 to 146.31 million tonne in 2014-15. For the first time there is a record enhancement of milk production as 6.3 per cent whereas on international scenario there is only an increment of 2.2 percent enhancement of milk production.”

Amul to help JKMPCL improve infrastructure

Mar 6, 2016

Source:kashmirreader.com

Gujarat Co-operative Milk Marketing Federation (GCMMF), that owns the milk brand Amul, will be facilitating Jammu and Kashmir Milk Producers Cooperative Limited (JKMPCL) in upgrading its infrastructure to process additional milk at its plants, besides helping it to emulate the cooperative model for its working to improve livelihood of dairy farmers.

Interacting with a Press Information Bureau led media delegation from Kashmir Valley, Dhiraj Kumar Choudhary, Manager Technical and Projects at Amul’s Anand plant said that since 2004 they have been sharing their technical expertise with JKMPCL owned plants at Srinagar and Jammu to run them on profitable lines.

He said that additional machinery will soon be in place at both the plants located at Chesmasahi in Srinagar and Satwari in Jammu to increase the processing capacity of the plants.

“Apart from this they are expanding their milk collection capacity in Kupwara district in Kashmir as well as Rajouri in Jammu. This will give better remuneration to the dairy owners in these areas,” he said.

He added that aim of this up-gradation was not only to make available hygienic milk to the consumers, but also to implement the cooperative pattern of Amul, which ensures dairy owners getting better price for their produce.



Choudhary said the purpose of Amul Cooperative model since its inception was to end the influence of middlemen to determine the price of milk and instead give the farmers or dairy owners a say in pricing of milk. Amul Cooperative model was founded by Dr Verghese Kurien in 1946. Dr Kurien is known as the father of White Revolution in India for his Operation Flood, the world's largest agricultural development programme.

"We may be processing a minuscule amount of milk in Jammu and Kashmir as compared to what we do at Gujrat, but this has made a significant contribution to the farmers as private players too are now offering them better remuneration for their milk," Choudhary said.

He added that Gujarat type of collection system is presently operational in Jammu and Kashmir where automatic testing equipment has been added at the centers and "we pay the farmers according to quality of the milk".

"The model that has been put in place in J&K will itself take care of needs of farmers. We are also offering veterinary consultation to dairy farmers and providing them feed too," Chaudhary said.

Anil Bayati OSD at the Amul Fed dairy, one of the largest milk processing plants of India situated at Ghandignar, said that the milk generation potential of Kashmir is significant given its cold climate.

He said that contrary to the decline of milk in summers across India, Kashmir witnesses a surge and given that if production is increased this milk could be utilized aptly.

He said that the company will also explore possibilities of utilizing the fresh fruits as well as nuts produced in the state to be used for a wide range of products produced by Amul.

The officials said that increasing milk production is vital to tackle the malnutrition in children.

Pilot project to reform milk societies

Mar 5, 2016

Source:thehindu.com

The district administration and the Kalaburgi-Bidar Milk Producers' Societies Union Ltd. will start a pilot project to reform milk societies in villages by introducing computerised milk procurement and online payment.

Tasks like measuring the volume and quality testing of milk and keeping a daily count of the milk procured in the village by evening will be automated.

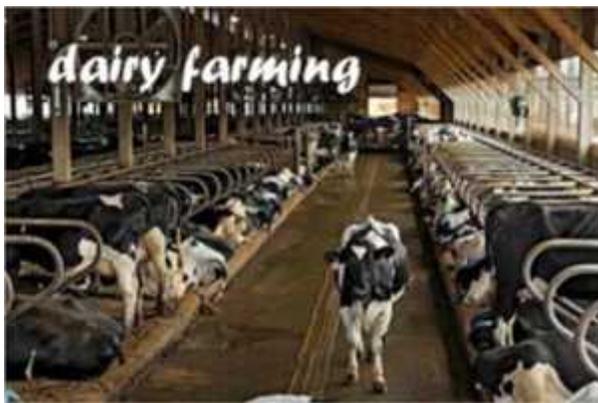
Society secretaries will be trained in handling them and milk producers and farm workers will undergo an orientation session.

As many as 50 villages in the eight taluks will be taken up in the first phase. The district administration will fund the project.

“These units are being set up in villages that did not have milk producers cooperative societies. We have completed formation of societies in 27 villages. We will install the procurement machines here soon,” Deputy Commissioner Anurag Tewari said.

“A study by the Animal Husbandry Department has shown that regular payment is the most important motivator for farmers. Other factors were transparency in the procurement process that measured milk properly and money was paid according to the quality submitted. We clubbed these three things and decided to change the way a society functions,” Mr Tewari said.

Money will be transferred electronically into the bank accounts of farmers. “Our focus will be to encourage women farmers open bank accounts, keep animals and supply milk to the societies,” the DC said.



Dairy Farming

Farmers and societies will get incentives to perform. Farmers who produce the most will be rewarded with loans to buy cows and buffaloes and technical assistance. Societies that collect the highest amount of milk will get regular technology upgrades and awards. Schemes and funds of various departments will be dovetailed to provide incentives to farmers and societies, according to him.

Union president Revanasiddappa Patil said that this was the first step towards making Bidar a milk surplus district.

This will not only help poor families fight malnutrition by feeding their children with milk produced at home, but also help them get a regular source of income by selling their produce, he said.

“We want to exploit our proximity to large markets like Hyderabad and Secunderabad. We are entering into a phase where we will supply quality milk to such large markets,” Mr. Patil said.

Kalaburgi-Bidar Milk Producers’ Societies Union Ltd. gets around 60,000 litres per day, out of which 70 per cent is procured is from Bidar alone.

However the potential yield of Bidar, home to the native Deoni breed cattle, is estimated to be at least three lakh litres per day.

The milk shed scheme introduced by the State government aims at doubling procurement in the next few years and help farmers by setting up milk processing and by product making plants in the district.

MILKFED to setup kiosks at IOCL outlets

Mar 5, 2016

Source:aninews.in

MILKFED signed a memorandum of agreement with Indian Oil Corporation Limited (IOCL) to put up Verka kiosks at the selected retail outlets of IOCL here today.

Oil Corporation Limited has retail outlets at various locations to market the petroleum products and to provide value added services to the customers. Now these customers can enjoy healthy and tasty products of Verka at the IOCL outlets while they fill their vehicles’ tanks.

Milkfed always strives to bring the best of its products to the consumers. They always look out for new avenues to reach the consumer. With this agreement the favorite verka products will be readily available at the IOCL outlets.

Speaking on the occasion Amarjit Singh Sidhu, Chairman, MILKFED said, “Verka is an admired brand of milk products amongst the customers. We are always looking for engagements points to serve our

customers better. By collaborating with IOCL we will be able to deliver the best of our products to the consumers more conveniently.”



MilkFed signed MOU with IOC

“This association will provide us an opportunity to tap on the large consumer base of IOCL and expand our footprints across the region. It was also provide employment opportunities to local youth,” added Singh.

“Verka is the leading dairy brand in the region. It is our pleasure to associate with Verka to provide our customers healthy, tasty and superior quality products at our outlets,” said P.K. Das, Executive Director Punjab State office, Indian Oil Corporation.

IOCL has about 2200 retail outlets in three states of Punjab, HP and JK. Verka products will be available at selected outlets.

Innovations in Dairy Ingredients and Products

Mar 4, 2016

Source:fnbnews.com

We are all well aware that nutrition is essential for us to sustain growth and maintain good health. But nowadays everyone is talking about the influence of diet and nutrition in not just maintaining our health but also in fighting against diseases. The perception of food and nutrition has evolved over the years from just survival, hunger satisfaction, absence of adverse effects on health to its current emphasis on promoting better health and well-being, helping reduce risk of chronic diseases and so on.

Apart from this knowledge and awareness, consumers are looking for natural options than processed and prepared foods. Owing to this, there has been an increase in emergence of many new segments in the nutrition & wellness sector, also a lot of research is being carried out on natural ingredients and foods.

One such natural food which has been widely researched is 'milk.' Milk is the most basic food that we consume, right from our birth. It is considered as the nature's perfect food since it has got the unique power to sustain life at all stages of development right from childhood to old age. The importance of milk has also been profoundly expressed in Charak Samhita as well as Atharva Ved.

Traditionally we all have been consuming milk in its pure form since ages but the scenario has now changed. Today we all are in need of increased nutrition to meet daily requirements as the foods that we otherwise consume are low in nutrition. With respect to this, there have been lot of innovations in milk and milk products changing the way that milk was represented earlier.

The increasing availability of milk and milk products has led to a lot of changes in the consumption pattern and basket of Indian consumers over the period of time. Now there are a number of variants of milk depending upon their composition or content. Consumers are more and more modifying their eating habits for health reasons. There is rising demand of consumers for more healthy variants of milk & milk products such as skimmed, low fat, double toned milk, high protein yogurt, products enriched with pre & probiotics and so on. The milk is processed in order to obtain these healthy variants. During processing, the essential nutrients from milk are lost thus to compensate for these lost nutrients, manufacturers fortify the milk with nutrients.

Functional components in milk

Milk is composed of a numerous health benefiting components and it has been observed that many of them have nutraceutical potential. Based on the components of milk and their nutraceutical potential, the dairy nutraceuticals market can be segmented in following families: Whey and protein fractions; Bioactive peptides; Probiotics & prebiotics; Lactose derivative; Vitamins & minerals.

The macro & micro components of milk have the potential of being nutraceuticals themselves. Due to increasing awareness, the dairy benefits are understandable to the average consumer and dairy products available are affordable even with value-added benefits.

Applications of dairy Ingredients in nutraceuticals

The dairy industry is currently rightly positioned to profit from the most important consumer trends shaping the food industry.

Yogurt and yogurt-based products



Driven by growing consumer desire for convenient and health promoting products, especially functional foods, the global yogurt market is projected to surpass \$67 billion by 2015. With the increasing awareness about probiotics as well as broad consumer acceptance of packaged yogurt and frozen yogurt products which satisfy the lifestyle and convenience needs of consumers, the market is expected to grow further.

Whey proteins

The sports foods market is a major segment for dairy ingredients. According to a study by prnewswire, the global whey protein market is expected to reach \$13.5 billion in 2020 from \$9.2 billion in 2015, with a CAGR of 6.5% for the period of 2015-2020. Also the sports nutrition as a segment is expected to reach \$1.7 billion in 2015 and \$2.7 billion by 2020 increasing at a CAGR of 9.0%. The sales of sports nutrition products, most of them based on whey protein, have doubled in India since 2007 to reach \$396 million in 2013. With increase in fitness & health-consciousness this category is expected to witness an exponential increase.

The various applications of whey protein are represented below:

Use of milk in infant formulas

The Infant formula market is one of the most developed sectors for the use of dairy nutraceuticals ingredients. There has been generalisation of specific infant formulas such as hypoallergenic formulas, pre-term formulas or formulas to prevent diarrhoea using milk hydrolysates and other specific dairy ingredients. The infant formula manufacturers are now targeting formulas that mimic mother's milk. Substantial research is also being done on new nutrients from bovine milk to reproduce mother's milk. The dairy protein fractions such as alpha-lactalbumin, are in growing stage.

Milk is fortified for various reasons – Increase the Calcium content (using ultra filtration), avoid allergy problems (β -lactoglobulin), improve the survival of probiotic bacteria for increased immunoprotection, protein standardisation-property leading to better utilisation of dairy products, increase marketability of dairy products and so on.

Food supplements

The sale of food supplements is on the rise for past 2-3 years. From the point of dairy ingredients

business, this market segment is very important and is now opening to a number of fractions such as the use of alpha-lactalbumin in products for relaxation & anti-anxiety, lactoferrin in blends, β -lactoglobulin in products for high blood pressure, cGMP in appetite regulation, IgG supplement to antibodies.

Use of milk in medical foods

The medical foods market revenues (India): expected to reach approximately US\$ 4.2 billion in 2017. Milk is widely used in medical foods special formulations for clinical conditions such as premature infants or for infants with special inborn errors of metabolism and so on.

Milk as a carrier for nutraceuticals & other bioactive ingredients

Milk has been widely used as a carrier / vehicle for various bioactive components. Milk beverages and yogurt are such milk-based products which are widely used as vehicles to deliver non-dairy bioactives, such as phytosterols and Omega-3 fatty acids. A recent development in this area is the use of milk proteins for encapsulation and delivery vehicles of bioactives in functional foods.

Dairy market

The current market size of the dairy industry in India is Rs 2.6 trillion and is estimated to grow up to Rs 3.7 trillion by 2015. The market share of milk and milk products can be further bifurcated into dairy-based nutraceuticals variants. In case of dairy nutraceuticals products, Japan is globally the most advanced market, where nutraceuticals dairy products represent up to 44% of the total dairy market. The major Asian markets like India and China, also some European markets are following this trend. According to a study, the probiotic food and beverage products have increased greatly over the years, with yogurt continuing to be the most popular delivery vehicle. In countries like the US, probiotic-fortified kefir beverages have also become more popular along with probiotic-enhanced cheeses and yogurts.

Why some humans developed a taste for milk and some didn't

The ability to digest dairy products enabled humans in some parts of the world to survive and thrive.

Friday, March 11, 2016 - 19:32 <http://www.thenewsminute.com/>



[Giles Yeo, University of Cambridge](#)

Imagine a dinner party somewhere in Italy to which, as it turns out, my dad has been invited. On the menu tonight is a sliced tomato, basil and mozzarella salad, pasta with a creamy mushroom sauce topped with parmesan cheese, and Italian gelato ice cream to finish. However, except for the sliced tomatoes and basil, my dad cannot eat anything on offer and is destined to leave the party hungry. My dad is, as I am, ethnically Chinese – and, like the majority of Chinese folk, lactose intolerant.

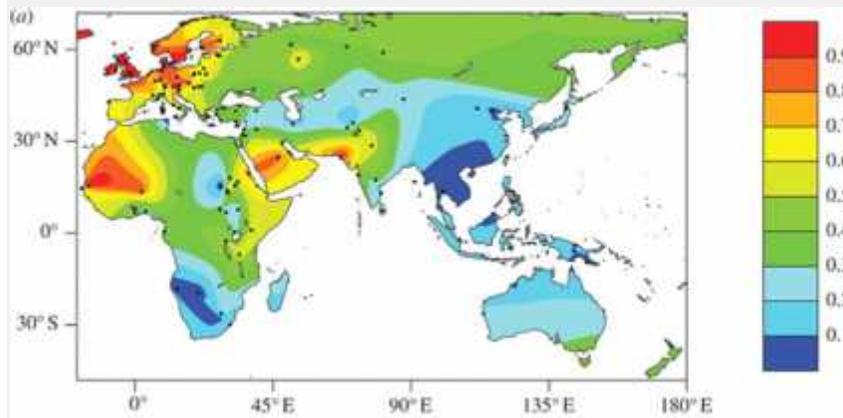
Although the inability to drink and eat dairy products (or more specifically the inability to digest lactose, the type of sugar found in milk) is commonly called “[lactose intolerance](#)”, this is actually a misnomer. All humans are lactose tolerant in early life because we are mammals. Most humans only switch to being lactose intolerant in the transition to adulthood.

But if so many adults struggle to digest dairy, why did we start drinking the milk of other animals in the first place? Well, with the domestication of large mammals, in particular cows, sheep and goats, people began to realise that animals could provide nutrition from more than just their meat. In fact, drinking its milk greatly increases the amount of calories available from an animal during its life-span. Couple this with the subsequent development of cheese making, which allowed for the nutrients available from milk to be [preserved in compact and portable form](#) and, voila, a new rich and renewable source of food was available to nascent herding communities.

The ability to digest dairy products as adults is likely to be adaptive owing to its increased nutritional benefits (sugars, as well as fat, protein and calcium) and milk's role as an important drinking source in arid regions. Considering the symptoms of lactose intolerance, which include water loss from diarrhoea, individuals who had acquired the genetic adaptation of “lactase persistence” and could therefore metabolise dairy products, would have had a very strong selective advantage in areas where herding of cattle, sheep and goats occurred.

Herd mentality

So powerful was the selection pressure in herding societies to be able to consume milk and its related products, that the trait of lactase persistence actually emerged independently at least three times; [in northern Europeans](#), emanating from what is now Denmark, and in [two geographically distinct African populations](#).



Map of lactase persistence. Royal

Society, [CC BY](#)

The incredible thing is that although the adaptation in the three cases involved different genetic changes, they all influence the same gene, [lactose dehydrogenase](#), required for metabolising lactose into glucose.

Chicken, pigs and tofu

A key question is how have most other peoples around the world, such as Chinese folk like my dad, continued to thrive without this ability to digest lactose as adults? Certainly the climate in much of East Asia would not have precluded the herding of cattle.

In lieu of viable milking herds, alternative sources of easily renewable protein were identified. For instance, [chickens were first domesticated in China](#). Chickens provided a key protein source, not only from their meat – but also from their eggs, which are, like milk and cheese, a rich, portable and renewable food source. Chickens are also far smaller and have a shorter lifespan compared to large mammalian species, making production less complicated.



On the menu in China. janecat

Crucially, one of the key crops domesticated by the Chinese – in addition to rice, of course – was the soya bean, which also has a [very high protein content](#). Soya beans are a versatile crop and are the source ingredient for tofu and also soya milk. In much of East Asia today, chickens and pigs ([also first domesticated by the Chinese](#)) form the bulk of the meat consumed – and this is supplemented by a large number of soya-related products, including tofu, soya milk, fermented soya beans, and a dizzying array of different soy sauces.

Decaf soya latte

I spent a significant period of my childhood in Singapore, where fresh milk was almost non-existent, and although powdered milk was available, everyone drank soy milk. These days, of course, soy milk is big in the West, too – it is perceived by some to be healthier than cow's milk as it has less fat and natural sugars and it is now widely available in all major supermarkets and in most coffee shops as a replacement for milk.



Rise of the soy latte. Dave Newman

There's a widespread belief in certain sectors of society that lactose intolerance is an indication that humans were not supposed to drink milk as adults. And certainly in some parts of the world, where this is the norm rather than the exception, this is certainly the case. But there's no denying that the ability to digest cow (and goat and sheep and camel) milk and its products gave some humans the edge in the survival stakes and helped them thrive in early agricultural societies.

[Giles Yeo](#), Principal Research Associate, director of Genomics/Transcriptomics, MRC Metabolic Diseases Unit, [University of Cambridge](#)

This article was originally published on [The Conversation](#)

Mumbai Residents' group out to stop milk adulteration

Mar 4, 2016

Source:indianexpress.com

While resident associations commonly only work for the betterment of civic issues in their area, a group called the New Link Road Residents Forum (NLRRF) has been successful in putting a stop to the recurring problem of milk adulteration in the Borivli-Dahisar belt.

Members of NLRRF have even managed to get some accused nabbed including after the busting of one such racket late last year.

A core committee of eight members organise 15-minute talks at housing societies to train residents on how to identify adulterated milk packets. The group also has a network on social media where people register their complaints.



Milk

“After catching the delivery boys, we try to reach the units where the adulterations takes place along with police teams. So far we have managed to raid units located in slum areas of Poisar, Shimpoli and Shivaji Nagar,” said Harish Pandey of the NLRRF. Another member, Dr S P Mathew, said the group regularly keeps an eye on milk packets dropped off in their respective buildings. “Initially we probed the issue at our local level, then we informed the officials of the FDA who supported us by reaching the spot in the wee hours. Later we even involved the police. We even check milk packets at the local grocery stores. The complaints have reduced a lot,” said Mathew. The biggest success the team witnessed was in 2011 when an alleged kingpin of the milk adulteration rackets in suburban Mumbai was nabbed following their efforts. The residents’ forum had tailed him for nearly a fortnight, before formulating a plan to catch him red-handed. This, however, did not stop milk adulteration activities in the area and residents continued to have complaints of tampered milk packets. Pandey said, “One can easily make out if a milk packet is tampered. The seals of such packets are zigzagged. Tampered milk packets do not have an expiry date and packaging date printed properly. The activities still continue in the area and we too continue to be alert.”

Goa Dairy files plea in high court challenging SUMUL entry in state

Mar 3, 2016

Source:navhindtimes.in

Goa Dairy has filed a petition before the High Court of Bombay at Goa challenging entry of SUMUL in the state.

The Goa Dairy has opposed the entry of Gujarat-based Surat District Cooperative Milk Producers Union Limited (SUMUL) on the ground that it is not a multi-state co-operative and so it cannot be set up in the state of Goa. Another ground on which the Goa Dairy is opposing the entry of SUMUL is that it has not been given permission by the state registrar.

In 1983 a tripartite agreement was signed between agricultural departments of the Union government, Goa government and Goa Dairy, restricting any other dairy establishment setting up business in Goa and the Goa Dairy sources said they would likely to oppose SUMUL on the ground of a tripartite agreement signed.



Dairy Farmers

The Goa Dairy was declared a cooperative in 1983 by applying a three-tier Anand Milk Union Limited (AMUL) pattern that consists of village level cooperative societies, district cooperative societies and state / national cooperative societies.

A tripartite agreement was signed between then Indian Dairy Corporation (now National Dairy Development Board, NDDB), Union government and Goa government and the agreement had made it mandatory to all milk producing farmers in Goa to sell the milk produced by them only to Goa Dairy through the village dairy.

Russia warms up to Indian cheese imports

Mar 3, 2016

Source:thehindubusinessline.com

India's long-winding negotiations with Russia for accessing its large market for dairy products may finally be nearing an end with the Russian quality control department, FSVPS, agreeing to discuss and examine the independent disease control mechanism adopted by the dairies wanting to export.

Indian officials from the Commerce Ministry, together with top Indian dairy companies such as Amul and Parag, at a recent food fair in Dubai, convinced Russia's FSVPS to focus on quality control measures adopted by Indian dairies and its effectiveness instead of number of cattle owned by them, a government official told BusinessLine.

"A meeting between FSVPS officials and the Commerce Ministry is scheduled this week where India will explain in detail the disease control and vaccination programmes followed by veterinarians working for dairies in their catchment areas," the official said.

The Russian officials are also expected to consult their agriculture university on the safety and efficacy of these measures. "They will also be asked to verify and see for themselves that the areas services by the vets have been disease-free," the official said.



Parag Milk Food

Cap on cattles goes

Interestingly, Russia, which had put the condition that it would source cheese from only those dairies that owned at least 1,000 cattle, had agreed to India's condition that the requirement of a captive cattle farm be reviewed after six months as most dairies did not have such farms. But the Indian government had second thoughts and wanted the issue of captive cattle farms settled before any export happened as it feared that the matter may not be addressed later.

“We told the Russian officials in Dubai that the special relationship between the two countries warranted that it did not insist on a requirement that is unrealistic and can’t be met by most dairies worldwide,” the official said.

India is trying to grab a share of Russia’s annual imports of food items from Western countries, which is to the tune of \$40 billion. Since Moscow has banned import of most food products from the West because of acrimony over the on-going Ukrainian crisis, New Delhi wants to cash in on the opportunity.

23% of milk samples found violating safety norms

Mar 2, 2016

Source:timesofindia.indiatimes.com

The packaged water and milk, that you buy assuming it is safe and of good quality, may not necessarily be so. Around 28% samples of packaged drinking and mineral water and about 23% milk samples tested during 2014-15 were found violating food safety standards and norms, government data shows.

“Some instances of sale of mineral water or packaged drinking water not conforming to the standards prescribed under the Food Safety and Standards Act (FSSAI), 2006 and Regulations thereunder and unlicensed packaged water, have come to the notice of FSSAI,” health minister JP Nadda told Rajya Sabha in a written reply.

Out of 2977 and 806 packaged water samples tested during 2013-14 and 2014-15 respectively, 577 and 226 were found to be not conforming to the standards prescribed under the FSSAI Act.

Replying to another question on adulterated milk, Nadda said out of 6649 samples analysed in 2014-15, 1559 were found to be not conforming to the prescribed standard under the FSSAI Act.



Glass of Milk

In June last year, TOI had reported that the food safety regulator sounded a countrywide alert on adulteration of food commodities and asked all states to “increase surveillance activities” with a special focus on milk, packaged drinking water and edible oils.

FSSAI had also asked food commissioners across the country to collect more samples of these products and send them for comprehensive testing.

“The Secretary Department of Health and Family Welfare has requested the Chief Secretaries of all states/UTs to issue instructions to administrative and police authorities to extend all possible cooperation to the food safety authorities in carrying out surveillance activities to check food adulteration and manufacture/sale of sub-standards food item,” Nadda said.

After hiking milk price, KMF reduces 20ml in half-litre pack

Mar 2, 2016

Source:deccanherald.com

After increasing the price of regular milk from Rs 29 to Rs 33 per litre in January, the Karnataka Co-operative Milk Federation (KMF) has quietly reduced 20 ml of milk in its half-litre pack.

This has led to a substantial increase of Rs 15 lakh in the daily revenue of the Federation, which sees a sale of about 34.7 lakh litres of milk per day in the State.

When the price was Rs 29 for a litre of milk, the KMF had sold half a litre at a cost of Rs 15 in order to avoid the problem of tendering 50 paise change to customers and simultaneously increased the quantity of milk from 500 ml to 520 ml. However, the Federation did not take these changes into account when the price of a litre of milk was increased to Rs 33 in January.

At present, Nandini milk consumers pay Rs 33 per litre, while the cost is Rs 17 instead of Rs 16.50 for a half-litre pack containing 500 ml. This time, the Federation has not compensated with an additional 20 ml of milk, which was done in the past.

A homemaker from Uttarahalli said she paid Rs 17 for half a litre of milk (500 ml) besides Rs 2 as delivery cost.



Nandini Milk

KMF Director (Marketing and Engineering) Ravikumar Kakade told Deccan Herald the decision was taken in the presence of all stakeholders. “The smaller the pack, the more the cost of production. It cannot be equated. Hence, the cost of half a litre of milk need not necessarily be half of the cost of a litre of milk,” he said.

Last time, it was a sort of bonus given by the Federation with an additional 50 ml of milk. This time, the financial positions are bleak. Hence, it is difficult to give the same benefit. Whenever we have fraction issues, we have rounded the figure,” he said.

The KMF sells 10 different kinds of milk, but Nandini Pasteurised Toned Milk constitutes the bulk of its sales. In 2014-15, the KMF procured on an average 58.69 lakh litres of milk per day from nearly 13,000 milk co-operatives.

The average milk sale was 32.38 lakh litres per day. In 2015-16 so far, these figures have increased to 66.45 lakh litres and 34.39 lakh litres per day correspondingly.

The KMF sells about 18.7 lakh litres of Nandini milk per day in Bengaluru and 34.7 lakh litres across the State.

It procures around 59.5 lakh litres of milk per day and the excess milk is used for dairy products such as ghee, curd, butter milk and Nandini sweet products.

E-marketing a Boost for Breeders

Mar 1, 2016

Source:newindianexpress.com

The budget brings focus on reform which is good. The agri and rural sector seems to be rightfully in focus, with Rs 87,000 crore allocation. Hopefully this will spur rural economy which has been stressed over the past year. The dairy sector — which is of specific interest to us as we are a startup that works to develop the best innovative packaging formats and dairy products for our consumers — has huge rural economy impact potential and also nutrition security implication. It’s a positive sign that the FM has put specific focus on promotion of dairy farming, including e-marketing portal for breeders.



In line with energising startups, the government needs to channelise this focus not just via co-operatives but also via private sector ventures to bring about a multiplier effect in channelising these impetuses given to farmers.

After the high decibel Startup India initiative, the budget could have followed up with some specific incentives for entrepreneurial risk. However, the focus on reforming Company Law to reduce over-regulation and compliance for startups will certainly be helpful in freeing up bandwidth so they can focus on building great products and building scale.

The narrative around the ease of doing business signals strong intent and will certainly have an impact on ground-level policies and implementation as an enabler for a vibrant startup ecosystem.

Financial sector reform, however, fell short of addressing the need of startups in accessing debt capital. This is something that needs to come to the table sooner rather than later. Overall, Budget 2016 is a good one, keeping in mind the opportunities and limitations of the current economy.

Milk production gets booster dose

Mar 1, 2016

Source:timesofindia.indiatimes.com

Milk production in India – world’s largest milk producer – will get a booster dose with four new projects with a financial outlay of Rs 850 crore announced by finance minister Arun Jaitley for the next five years. In the process, millions of farmers in the country will get better remuneration for the milk they pour daily at village-level dairy co-operatives.

“Around 35 % of the agriculture GDP comes from animal husbandry and it is the only source of livelihood for even those who are landless. Improving health of animal will help increase productivity thereby enabling farmers to earn more,” said R S Sodhi, managing director of the Gujarat Co-operative Milk Marketing Federation (GCMMF) the body that markets brand Amul.



Amul

“Health of cattle is extremely important for better milk productivity and increase in milk productivity of animals can only result in better remuneration to farmers. This is where ‘Pasudhan Sanjivani’ – the animal wellness programme with ‘Nakul Swasthya Patra’ – animal health cards will play an important role,” said T Nanda Kumar, chairman of the National Dairy Development Board (NDDB).

Since 2012, NDDB through its National Dairy Plan (NDP) also known as ‘Mission Milk’ is already working on the ambitious project of doubling India’s milk production to meet the growing demand of milk and milk products in the country.

“The announcement of advanced breeding technology, creation of ‘e-Pasudhan haat’ (an e-market portal for connecting breeders and farmers) and setting up of national genomic centre for indigenous breeds will go beyond Mission Milk to strengthen the animal husbandry sector,” he said.

Since a year, NDDB is also pursuing genomics as a tool for selecting and preserving the best of the indigenous breeds like Gir, Kankrej and Sahiwal.

Under NDP, it is building a germplasm bank of indigenous cattle breeds like Sahiwal, Red Sindhi, Gir, Rathi, Kankrej, Khillar, Haryana and Tharparkar and buffalo breeds like Murrah, Jaffarabadi, Pandharpuri, Bhadawari and Toda in the form of frozen embryos and frozen semen.

For increasing productivity of milch animals, it is producing 901 high genetic merit bulls of Murrah and Mehsana breeds while another 400 high genetic merit bulls of ten indigenous breeds of cattle and buffaloes are being produced.

Businesses feel effects of dairy drop - survey

2:06 pm on 15 March 2016

<http://www.radionz.co.nz/news>

A survey has found more than one in five small and medium-sized firms are feeling the effects of falling dairy prices.



The dairy downturn is hurting the wider primary sector, manufacturing and retail and hospitality businesses, according to MYOB's survey. Photo: 123rf

Accounting software maker MYOB said 21 percent of firms reported their revenue had fallen, while 25 percent said consumer confidence had been hit.

MYOB general manager James Scollay said that meant about 100,000 businesses employing roughly 1 million people were facing reduced revenue because of the dairy downturn.

"New Zealand is extremely reliant on the agricultural economy. It stands to reason that the rural sector would have taken a hit, but what we are seeing is that the effects of the dairy downturn are filtering through to the cities and other industries, slowing consumer spending and beginning to hit the bottom line of many SMEs."

Last week, Fonterra cut its forecast milk price payout for the second time in three months, from \$4.15 a kilogram of milk solids to \$3.90 a kilogram.

Some analysts have estimated that up to one dairy farmer in four is in trouble.

The MYOB Business Monitor showed the primary sector was the hardest hit, followed by manufacturing.

In the primary sector, 45 percent of respondents stated consumer confidence was down, and 43 percent reported a downturn in revenue as a result of the dairy price, with more than half of those saying this effect was very negative.

In manufacturing and wholesale, 36 percent of SMEs said they had seen revenue returns decline, and 33 percent said they felt it hit consumer confidence.

Mr Scollay said retail and hospitality were also under pressure, and a third felt dairy prices had affected consumer spending.

"During the six years that the Business Monitor has been running, we have found the retail and hospitality sector to be the bellwether of the New Zealand economy.

"If consumer confidence is down in this sector, it is highly likely we will begin to see spending decline across the whole country."

The effects were greatest in rural regions.

Mr Scollay said 39 percent of rural respondents stated that the dairy price was hitting consumer confidence, and 34 percent were experiencing a drop in revenue.

"While it is perhaps unsurprising to see that the rural regions are the most affected by the dairy price, it is worrying to note that 19 percent of rural SMEs said the impact on their revenue was significantly negative."

Wellington and Auckland appeared insulated so far, though Christchurch's firms were starting to feel the effects.

Dairy farm using solar power to meet energy needs

Jean Caspers-Simmet, simmet@agrinews.com
<http://www.agrinews.com/news>

Updated Mar 15, 2016

- Jean Caspers-Simmet, simmet@agrinews.com



- Jean Caspers-Simmet/Agri News

Mike Gibbs, of Waterville, Iowa, led a tour of his dairy's 39.75 solar PV system which he installed on a new calf barn. The solar system generates 18 percent of the 500-cow dairy's electricity needs. The tour was part of the Winneshiek Energy District's solar workshop in Waukon.

Mike Gibbs, of Waterville, Iowa, led a tour of his dairy's 39.75 solar PV system which he installed on a new calf barn. The solar system generates 18 percent of the 500-cow dairy's electricity needs. The tour was part of the Winneshiek Energy District's solar workshop in Waukon. Gibbs has labels on the system and has notified the local fire department that they have solar PV on the farm and at their residences.

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Patty Nordheim, (right) and Paul Roeder, solar owners from Waukon, Bill Haman, of the Iowa Energy Center, and Andy Johnson, director of the Winneshiek Energy District, answered questions at a solar workshop in Waukon hosted by the Winneshiek Energy District and local partners.

Paul Roeder, left, and Patty Nordheim, answered questions during a solar energy workshop in Waukon. Roeder has solar at his home and Nordeim has solar at her home and at her Harley Davidson dealerships in Waukon and Winona, Minn. The solar workshop was hosted by the Winneshiek Energy District and local partners.

Patty Nordheim, (right) and Paul Roeder, solar owners from Waukon, Bill Haman, of the Iowa Energy Center, and Andy Johnson, director of the Winneshiek Energy District, answered questions at a solar workshop in Waukon hosted by the Winneshiek Energy District and local partners.

Gibbs Dairy installed a solar array on its new calf barn. The solar PV system generates 18 percent of the 500-cow dairy's electricity needs.

WATERVILLE, Iowa — Gibbs' Dairy meets 18 percent of its electricity needs with solar power.

Mike Gibbs recently led a tour of his dairy farm's solar photo voltaic installation as part of a Winneshiek Energy District solar workshop.

Mike and his wife, Cindy, farm in partnership with their sons, Shawn and Chris, and milk 500 cows near Waterville. They also grow 1,200 acres of corn, soybeans and hay. The parents are helping their sons work into full ownership.

The 40 kilowatt solar array was installed a little less than a year ago on the roof of a new calf barn. The array includes 159 solar panels with 285 watts per panel. There are micro-inverters in the panels.

Mike also has a 12 KW installation at the acreage where he and Cindy live. Shawn has a 12 KW array at his home.

John Blake, of Blake Electric in Postville, installed the systems. He estimates of the 50 solar systems he's installed, 24 are on farms.

Gibbs said he agrees with Winneshiek Energy District director Andy Johnson, who urges tackling energy efficiency first before installing a solar system.

At Gibbs Dairy, they tore out the lights in the shop, milking parlor, holding area and barn and replaced them with LED lights. The result was a big energy savings.

"Taking care of efficiency is the first target," Gibbs said. "Our utility co-op (Allamakee-Clayton Electric Cooperative in Postville) has incentives for replacing lights, and you get the fastest payback on lights. Do that first."

The dairy has three-phase power. Blake installed an inverter on a pole with throw boxes.

Gibbs has labelled the system and also notified firefighters.

"We have to educate our firefighters on solar," Gibbs said. "Safety is important."

When asked if he insures his system, Gibbs said he insures anything that has an investment with money behind it.

"It's a good system," Gibbs said. "John did a good job putting it up. I'm very satisfied with the workmanship and the panels."

Gibbs is glad he installed it.

"It's green," he said. "There's no carbon coming off this set-up, as far as the panels. We're a big user of electricity with cooling milk. We did the variable speed drive on the vacuum pump and the plate coolers. You do all that first, and then we continued on with this."

When they built their parlor in 2003, all the equipment was the most efficient available. The dairy barn was built in 1999, and that's why they updated all the lights there. Technology keeps improving efficiency, Gibbs said.

He paid for the system himself but receives a 30 percent federal tax credit and a 15 percent state credit.

"I figured if it's such a great thing I'm going to put my own skin in the game," he said. "I financed it with my own cash and a loan from the bank."

The Waukon workshop was one of five held in northeast Iowa by the Winneshiek Energy District and local partners. Each workshop consisted of a solar expo with local contractors, speakers who talked about the technical and financial basics of solar PV.

Johnson, of the Winneshiek Energy District, talked about the technical and financial basics of installing solar systems. He also mentioned the district's Farm Energy Planning Program, which does a comprehensive analysis of farm facilities and field operations. Green Iowa AmeriCorps can provide an energy audit for residences.

Bill Haman, manager of the Renewable Energy Program and the Alternate Energy Revolving Loan Program Manager at the Iowa Energy Center, summarized the new Solar PV Energy Guide, a 32-page publication that is a part of the Home Series Energy Guide. The guide is meant as a neutral information source for residential, farm and small commercial customers who are seeking information on PV design and construction. It will be available soon for download at iowaenergycenter.org.

Johnson, Haman, a homeowner with solar and a home and business owner with solar answered questions during a panel discussion.

Paul Roeder installed 16 solar panels on a new shed and 20 panels on a ground mount system at his Waukon home.

“My electric bill is \$1.87 cents per month,” Roeder said. “Yes!”

Patty Nordheim has installed solar at her Waukon home as well as her Harley Davidson dealerships in Waukon and Winona, Minn.

Roeder also gave a tour of the solar installations at his home.

Visit the Winneshiek Energy District website at <http://www.energydistrict.org/resources> for solar contractor lists and other resources and www.energydistrict.org/programs/farm-energy-planning to learn about technical and financial energy opportunities on farms.

Can-One mulls sale of condensed milk ops

Saturday, 12 March 2016 <http://www.thestar.com.my/business>



Making cans: One of Kian Joo's production lines. Can-One, which had previously been involved in a long drawn take-over of Kian Joo Can Factory Bhd, presently trades at a single digit historical price earnings multiple of 7.8 times, based on Bloomberg data.

KWAP said to be keen, asset valued at RM800mil

Can-One Bhd is in the process of disposing a stake in its dairy manufacturing business in a deal that values the asset around RM800mil, sources say.

Among the interested buyers for the stake is the private equity division of Malaysian civil service pension fund Kumpulan Wang Persaraan (Diperbadankan) (KWAP), which is in the process of a due diligence over the deal, the sources say.

KWAP declined to comment while Can-One has yet to reply to queries from *StarBizWeek*. The planned stake sale is in Can-One's wholly owned subsidiary F&B Nutrition Sdn Bhd, which manufactures sweetened condensed, evaporated and flavoured milk for clients on an original equipment manufacturer or OEM basis.

Sources say that Can-One is seeking a valuation of up to 20 times earnings for F&B Nutrition, based on targeted profit after tax of RM42mil for the financial year 2015. This would value the business as high as RM840mil.

This is even bigger than Can-One current market capitalisation of RM695.6mil.

Sources said that Can-One is looking to sell up to 80% in F&B Nutrition.

Such a stake sale would give Can-One proceeds of up to RM672mil, although bankers familiar with the deal note that the stake being sold could be smaller than that.

The sale of F&B Nutrition is also said to be a precursor to an initial public offering (IPO) of the said company within a few years time.

"The plan is for the asset to be listed a valuation higher than 20 times earnings, so this is the potential upside for the buyer now," explains a source.

F&B Nutrition has three factories in Malaysia, all located in Kuala Langat, with a total workforce of more than 500 people and its end products end up in different markets around the world.

It is still unclear as to why Can-One is embarking on this sale but if it goes through it could be a potential re-rating catalyst for the stock, one banker says.

Can-One, which had previously been involved in a long drawn take-over of Kian Joo Can Factory Bhd, presently trades at a single digit historical price earnings multiple of 7.8 times, based on *Bloomberg* data. Its share price closed at RM3.62 on Friday on low volume. The company also recently announced 4 sen dividend per share, which equivalent to 1.4% dividend yield.

Notably, last year, Can-One bought the remaining 20% stake in F&B Nutrition it did not own, giving Can-One 100% ownership over the asset.

F&B Nutrition also generates around half of Can-One's profits. Can-One basically has two business divisions – the packaging division that produces tin cans and jerry cans and food division that processes dairy and non-dairy products.

The 20% stake of F&B Nutrition was paid for via Can-One shares valued at RM112.9mil. This means that that transaction valued F&B Nutrition at RM564.5mil in early 2015.

During that transaction, Can-One had said that F&B Nutrition was expected to contribute positively to Can-One's earnings given that it has posted a 44.5% cumulative average growth in the four years up to 2015.

That transaction also saw the 76-year old founder of F&B Nutrition, Teh Khoy Gen emerge as the second-largest shareholder in Can-One with close to 21% stake. Teh currently owns about 20% in Can-One.

On the other hand, Can-One largest shareholder Yeoh Jin Hoe's stake in Can-One was diluted to 23.5% from 29.63%.

Another on going development at Can-One is the buyout of Kian Joo, in which Can-One has a 32.9% stake. Recall that in November 2013, Aspire Insight Sdn Bhd made an offer to take over Kian Joo at RM1.47bil or RM3.30 per share. The parties involved have until March 23, 2016 to sign a definitive agreement - the fourth extension in two years running to fulfil all the relevant conditions. The debate continues on whether the offer price should be revised. But so far there is no indication that Aspire Insight intends to review it.

Based on Kian Joo's market cap of RM1.4bil or RM 3.62 share price, Can-One's 32.9% stake in Kian Joo is valued at RM460.6mil.

If Can-One gets cash from the sale of its condense milk manufacturing business or the Kian Joo buy-out or both, it would be in a good position to retire some of its debt. The company is in a net debt position of RM483.5mil.

For the financial year ended Dec 31, 2015, Can-One reported a net profit of RM80.1mil and a revenue of RM886.5mil, giving it a profit margins of 11%.

In early January this year, shares in Can-One jumped to as high as RM5.09 a share. On a year-to-date basis shares of Can-One had declined about 25% to its last traded price of RM3.62.

Hygiene is top priority while handling milk By Dr Othieno Joseph Updated Saturday, March 12th 2016

Source: <http://www.standardmedia.co.ke/>

Moses Otieno, a farmer and member of Kachieng' CBO is milking his freshian cow at Kadhanja Village, East Kamagak Location in Homa Bay County. If you have bought raw milk then you are not new to its unsavoury smell. This smell is characteristic in nature and you can trace it back to a certain brand of soap, a known deodorant spray, some farm chemical spray or characteristic body odour of someone you know. You are right in your weird thinking; yes, milk is a smell magnet and will hold onto any smell in its environ with amazing ease. This peculiar characteristic calls for special treatment to ensure quality and wholesome milk production. The process of clean milk production begins with the cow, its residence, through its feed to the person milking and how milk is handled thereafter. Anything going wrong at any of these stages can impart a foreign smell to milk. Clean milk has a natural flavour and is safe for human consumption. Quality and wholesome milk has a longer shelf life and can be converted into other quality milk products like yoghurt, butter or cheese. Clean milk also minimises spread of diseases like brucellosis, tuberculosis and diphtheria to humans. Milk is rich in nutrients and will offer favourable conditions for bacterial, fungal and mold growth. Bacterial count is a measure of milk quality and is determined by the cleanliness of milk, temperature at which it was stored and the age of milk. Bacteria have enzymes that digest milk and alter its composition. To avoid microbial growth store milk at very low temperatures (below 40 Celsius) at all times. If your cow lives in a dirty environment with cow dung and flies everywhere don't be surprised when the milk picks the cow dung smell. See also: Tracing the origin of 'mursik' When the teats get soiled with cow dung apart from being at risk of mastitis infection if not well cleaned at milking this can easily contaminate the milk and give it a "dungy" smell. Housing A well designed cow shade should have a gradually sloping drainage to ensure dung is washed away in a pit located some safe distance from the cow. The milking shade should be cleaned before and after milking with clean water and disinfectant. Avoid using disinfectants with strong smells as that too can be picked by the milk. If you are using generators in your farm locate them far away and don't store fossil fuel anywhere near a milking cow. The milker Where hand milking is practised the person doing the milking can easily impart undesired smell into milk. To avoid this, first he or she must be very clean; while a white laboratory coat is recommended during milking it is not a guarantee of cleanliness

Before milking ensure your body is clean and free from any strong smell either from the bath soap, body creams or sprays. Cut short your nails and thoroughly wash your hands before milking. There are peculiar milking habits employed by milkers which easily contaminate milk with bad smell. Some milkers will use the calf saliva or dip their fingers into milk or water to reduce friction between their fingers and the cow teat. These practices are employed where poor milking technique of pulling rather than squeezing is used. Pulling the teats will result in wound that can further act as a source of milk contamination. Udder cleanliness The udder must be washed thoroughly with lukewarm water then wiped dry with a clean towel before milking. Milk from a cow suffering from mastitis will not only have

unpleasant smell but will also have flakes or milk clots. To avoid this screen for mastitis by passing the first milk strips from every quarter through a strip cup. If mastitis is detected don't mix milk from the affected cow or quarter with the rest. Immediately after milking, dip the teats in disinfectant to prevent entry of disease causing micro-organisms from climbing up the udder. See also: Tracing the origin of 'mursik' Feeds? Animal feeds with a strong smell shouldn't be fed in large quantities to lactating animals. The most notorious of this is fishmeal, cabbages, garlic, onion and tuber plants. High grain diets have been shown to interfere with milk composition greatly reducing its shelf life. Storage of milk immediately after milking Aluminum and stainless steel milk cans should be used to store and transport milk due to their ease of cleaning and their ability to prevent contamination. Never use plastic jerricans to store and transport milk. Containers initially used to store detergents, disinfectants should never be used to store milk; you will be surprised at how milk will resurrect that smell you thought had been cleaned off the container. Heat treatment if not well done can give milk bad flavour as it alters its chemical and physical composition. Some milk off-tastes Acid flavour which gives a sour or tingling sensation on tongue is likely due to lactic acid accumulation in milk due to bacterial multiplication. This flavour is a result of poor refrigeration of the milk at higher temperatures that cause bacterial contamination. Cowy or cow's breath flavour results from poor housing conditions, dirty udder, poor ventilation and can also be due to diseases like ketosis. The gases eructed by the cow in poor ventilated shades will linger around and can get into milk giving it a cowy flavour. Milk will have a salty taste if the cow is in late lactation stages or is suffering from mastitis. If you get this taste immediately do a mastitis test on all the cows and quarters. To avoid these off-flavours farmers must set and observe strict on-farm milk hygiene standards and sensitise the other farm workers on the importance of clean milk production. Milk with a flat flavour is indicative of low solid content in milk and is a result of milk adulteration by addition of water or "old" milk. - The writer is a veterinary surgeon and works as a Communication Officer for the Kenya Tsetse and Trypanosomiasis Eradication Council (KENTTEC)

Lakeland Dairies first out of the blocks with February milk price

[Amy Forde](#) 3:19 pm - March 11, 2016 [0 Comment](#)<http://www.agriland.ie/farming-news>



Lakeland Dairies has **held its base milk price** for February supplies of milk at 25.5c/L (including VAT), a spokesperson has confirmed.

Lakeland will also pay a **0.28c/L lactose bonus**, which adds up to 25.78c/L, again including VAT.

It is the first co-op to set a milk price for supplies for the month.

Last month, Lakeland Dairies cut its January milk price for base **supplies from 26.25c/L to 25.5c/L.**

Lakeland Dairies had held its milk price for December supplies of milk.

The rest of the co-ops are expected to announce their milk prices for February milk **next week.**

Last month, Glanbia, Kerry Group and Dairygold all held their milk prices.

Lakeland's decision to hold its price for February comes as latest data from the EU Milk Market Observatory (MMO) showed Irish milk prices fell more in Ireland than any other EU country in January when compared to the same month last year.

Its data shows that EU milk prices fell on average by 2.8% in January as dairy markets continue spiral downwards in the face of increased production and sluggish demand for dairy products globally.

Irish milk prices showed the greatest decline over the period. The MMO data says Irish prices fell by 12% to 29.28c/kg from 33.50c/L in January 2015.

Other countries that have seen significant falls include the Czech Republic, Slovakia, Portugal, and Bulgaria.

Earlier this year, Lakeland Dairies CEO Michael Hanley said that once global stocks begin to clear, a gradual improvement in dairy market conditions is expected in 2016.

This includes investments in new milk processing capacity, larger scale and an efficiency and cost reduction programme across all operations.

The Lakeland Dairies CEO said that **dairy markets have been challenging** due to several factors coming into play at the same time.

"This has included the abolition of the EU quota system and increased production by European farmers, the Russian ban on EU dairy products and a global oversupply from dairy producing countries."

Food mysteries – Part 5: Discovering dairy

<http://msue.anr.msu.edu/news>

Dairy foods are important in our daily diet. Let's explore the mysteries behind dairy and why it is important to have in our daily diet at all ages.

Posted on **March 10, 2016** by [Michelle Neff](#), Michigan State University Extension

When we think about dairy products, they all come back to one ingredient: milk. Milk and milk products are packed with nutrients. Besides having protein, which the body needs for growth, milk contains vitamins A, D and riboflavin, plus the mineral calcium.

Calcium's role in the body is very important. Calcium is needed to clot blood when we get cuts or scrapes. It is also needed to keep our bones and teeth strong. If we don't eat a diet rich with calcium, our bones can become brittle and break easily. Calcium can be found in other foods too, such as salmon and collards, but the best place to get the calcium we need is through dairy products like milk, cheese and yogurt.

Vitamin D is an important vitamin found in milk. Vitamin D helps bones use calcium to make them hard and strong. Because calcium and vitamin D work together, vitamin D is added to milk at the processing plant. Vitamin D can also be absorbed from the sun's rays.

An easy and fun science experiment to do with kids around milk is called the Sour Secret. Have kids take a half of cup of milk and add 1 1/2 teaspoons of vinegar or lemon juice to it. Have them record what they observe. Then, have them stir it and ask what they notice. Ask them to think about what it might taste like. This is called sour milk and is sometimes used in baking recipes. Acids in the vinegar or lemon juice cause the protein in the milk to coagulate and separate out from the milk, making it sour.

To learn more about healthy eating and ways to keep kids active, visit your local [Michigan State University Extension county office](#).

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Suspect detergent in milk? DRDO's test kit will tell you in minutes

More than two thirds of the milk in India does not meet the food safety standards.

[PTI](http://www.thenewsminute.com/article) | Monday, March 7, 2016 - 15:13 <http://www.thenewsminute.com/article>



By Pallava Bagla

India is today the world's largest producer of milk thanks to the white revolution. Yet more than two thirds of the milk in India does not meet the food safety standards. Adulteration of milk is rampant, a startling six per cent of the samples tested in 2015 by the Ministry of Health had presence of 'detergents' in them confirming that 'synthetic milk' is a huge problem.

For a lay person trying to differentiate between contaminated and pure milk is a tall order and only specific chemical tests can reveal the truth. Contaminated milk can be a huge health hazard especially when it has been laced with urea, detergents and other toxic chemicals. With the festival of Holi round the corner, it is time to be alert about the dangers of milk contamination.

Now a cheap milk testing kit has been developed by the Defence Food Research Laboratory (DFRL) in Mysuru, which is a part of the gigantic Defence Research and Development Organisation (DRDO). This kit, which even an untrained person can use at home, helps within minutes detect contamination of six common adulterants in milk.

Recently as part of another initiative, Union Minister for Science & Technology and Earth Sciences Harsh Vardhan unveiled another dedicated system for the detection of adulteration and analysis of milk, developed by Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani.

According to Vardhan, "The gravity of the situation had been such that the National Institute for Transforming India (NITI Aayog) identified the problem of detecting adulteration in the milk within three minutes at Rs 4 or less, as one of the grand challenge areas being considered under the 'Atal Innovation Mission'.

In this backdrop, Vardhan appreciated the initiative of CSIR for developing and deploying this technology solution, 'Ksheer-Scanner', which instantaneously detects the above- identified adulterants in milk. It is a low-cost portable system with user-friendly features. It enables detection of contaminants in just 40-45 seconds at the per sample cost of less than 50 paise.

Earlier, Union Agriculture and Farmers Welfare Minister Radha Mohan Singh while speaking at National Dairy Research Institute, Karnal, Haryana said, "India stands first on global milk product scenario. Milk production has been increased from 137.68 million tonne in 2013-14 to 146.31 million tonne in 2014-15. For the first time there is a record enhancement of milk production as 6.3 per cent whereas on international scenario there is only an increment of 2.2 percent enhancement of milk production."



This is a spectacular achievement for the country which in 1950 was producing a mere 17 million tonnes of milk. An almost nine-fold increase in milk production in a little over 60 years.

However, what is most embarrassing for the country is a 2015 admission by Union Minister for Health & Family Welfare J P Nadda that "the Food Safety and Standards Authority of India (FSSAI) had conducted a nationwide survey on milk adulteration in 2011. A total of 1791 samples were drawn from 33 states and were tested in the government laboratories. 68.4 per cent of the samples were found to be non-conforming to the prescribed standards. Out of these, in 46.8 per cent samples, milk found to be sub-standard in respect of fat and solid not fat (SNF) contents. Another 44.69 per cent of the samples (548) in respect of skim milk powder were found to be non-conforming to the prescribed standards where presence of glucose was detected in 477 samples. A total of 103 samples (5.75 per cent) were found to be adulterated with detergents."

"Milk adulteration is particularly high during the festival season, when the demand peaks but production cannot be increased," explains M C Pandey, a scientist at the DFRL who has helped develop the milk testing kit.

The kit developed by the defence institute uses just a few chemicals and strips of paper dipped in a different chemical. A change in colour of the milk or a change in colour of the paper indicates the presence of a contaminant. When detergents are present in the milk the colour of test turns to green, yellow or blue and Pandey says the test can detect as low a value as 0.5 per cent of the contaminant.

Especially in north India, a lot of milk during the festival season is made using detergents and urea. Called 'synthetic milk', it resembles milk but can be very harmful.

Every day washing powder and refined oil are mixed and then diluted to make it look and have the consistency of real milk.

Scientists at this nondescript lab in Mysuru developed the kit at a mere cost of Rs 9 lakh and the box containing 320 strips for testing 8 different contaminants with the cost of each test strip coming to just about Rs 2.



Pandey says all the other milk-testing kits require sophisticated laboratory settings but this simple strip based test helps Indian soldiers test supplies of fresh milk even at remote locations.

Occasionally to make milk look fresh, some 'neutralisers' are added using the strip test the contaminated milk becomes pink in colour. If the milk contains urea the test becomes yellow.

The technology for the milk testing kit has been transferred to a private company Pearl Corporation says Pandey who says the DRDO sold the technology at a royalty of Rs 1.25 crore annually, this according to him marks the success of this technology.

Pandey explains this kit should be very helpful to plug ingress of contaminated milk at source. He suggests if such tests become common then milk when it is collected by suppliers at the level of the households could be tested and if found contaminated it should be rejected right at the doorstep of a small dairy supplier.

Rather than a large consignment of milk being rejected for contamination at the level of a milk plant, where hundreds of tons of milk gets collected for further processing.

Singh says, "Dairy plays an important role in agriculture domain of the country with the 3.9 per cent contribution to the national gross product. It is not only a substantial source of livelihood but also most credible basis to ensure the national food requirement. It is the repercussion of the growth in dairying that the growth rate of agricultural sector has been 4 per cent unabatedly.

"Today we have been able to provide on an average 302 gm per person per day milk in the country which is more than the minimum required recommended by the WHO."

So even as India feels proud of being the number one producer of milk in the world having outpaced US, China and Brazil, the large-scale contamination of milk remains a big blemish for the White Revolution.

Towards that Nadda says "the menace of food adulteration and particularly milk adulteration needs to be eliminated."

Needed - 10,000 dairy cows to boost milk output

Published 5 Mar 2016, 5:00 pm Updated 5 Mar 2016, 5:31 pm

The government plans to boost national milk production by having 10,000 more dairy cows to meet the total need in the country.

Agriculture and Agro-based Industries Minister Ahmad Shabery Cheek said Malaysia produced 34 million litres of milk a year while the total consumption is 50 million litres a year.

"The balance of our milk needs are imported from Australia (92 percent), New Zealand (one percent) and numerous other nations (seven percent).

"We will be able to produce an additional 20 million litres of milk to achieve self-sufficiency with the move," he told reporters after visiting Syarikat Allied Dairy Sdn Bhd in Larkin, Johor Baru, today.

He said the programme to increase the dairy cow population was expected to start in about two years on a RM200 million allocation.

According to Ahmad Shabery, Malaysia had 20,000 to 30,000 dairy cattle and the number was not enough to meet the local demand for milk which goes up by five percent a year.

He said the government also introduced a 13-Dairy Cluster Entry Point Project in 2011 to boost milk production for full sufficiency.

He said three leader companies were appointed via the project under the agriculture National Key Economic Area, namely, Allied Dairy in Johor; Evergreen Livestock Sdn Bhd (Sabah) and ADMC Dairy Farm Sdn Bhd in Kedah.

"Under the programme, cluster dairy farmers of the leader companies receive various aid such as dairy cows, milk tanks and solar hot water heaters. The milk produced will be bought by the leader companies for processing," he said.

Ahmad Shabery said RM957.35 million worth of milk and milk products were exported in 2013 while milk and milk product imports were valued at RM3.27 billion.

- *Bernama*

De-intensify or sell, dairy farmers' choice

Dairy economist Peter Fraser asks - and answers - the tough questions facing dairy farmers and the dairy industry.

Last updated 10:19, March 2 2016

<http://www.stuff.co.nz/business/farming>

Around two-thirds of dairy farmers' debt is held by only a third of farmers - most with equity well under 50 per cent, and some with less than 10 per cent.

Data from the Reserve Bank shows dairy farmers are collectively borrowing about \$3.5 billion a year just to stay afloat. This is "bad debt" as it is purely designed to cover on-farm losses. This works out to farmers' deficit-financing at a rate of almost \$10 million a day or \$300m a month - and next season is offering little in the way of respite.

How is the adjustment likely to play out on-farm?

The fundamental question is how long will banks continue to support deficit spending and at what point are on-farm balance sheets exhausted.

A third bad season combined with a realisation of a structural change in dairy prices could be extremely damaging - as farmers face the dual problem of declining land values and deficit-financing eroding whatever on-farm equity remains. For farms located in areas suitable for dairy farming they will need to de-intensify in order to restore on-farm profitability.

For farms in non-traditional areas with sticky costs there probably is no way out as the land could be worthless in terms of dairy farming. It's likely that a large number of farms won't make it - they will be sold up and recapitalised.

At a land price of \$30,000 a hectare, every 10 per cent of doubtful dairy debt equates to over \$130,000 a hectare of land sold - and even at \$50,000 a hectare is \$80,000 a hectare in total. Indeed, working on a 1.5 million hectares of dairy platform a reduction in land prices from around \$50,000 to \$30,000 a hectare represents a \$30b value destruction/erosion of equity (which ironically is the level of increased debt since 2000).

What does this mean to the industry?

A "new normal" of a structurally lower farm gate milk price kills the notion of New Zealand having an ever increasing milk supply or that New Zealand is an abundant and low-cost producer of dairy products.

A very large part of the dairy industry is in a state of terminal confusion over the role of average costs, arguing New Zealand has the lowest average cost of production in the world, which means farmers are more efficient than those overseas, which means they are more resilient so hyper-competitive.

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While somewhat true when the farm gate milk price was at \$4.20 (+/- 90 cents), that simply is not true now.

Even if it was true, it is irrelevant, as commodity markets clear at the margin (and not at the average) and other countries have a lower marginal cost of production than New Zealand. The corollary is that New Zealand is not only no longer the "swing producer", but if there is an increase in demand for dairy products they will be supplied by countries with a lower marginal cost.

A comparison with the oil industry is useful. New Zealand used to be the Saudi Arabia of milk as an abundant and low-cost exporter. However, intensive and extensive dairy are the equivalent of the Canadian oil sands when the rest of the world has discovered fracking.

It is therefore unlikely New Zealand milk production will see dramatic growth and may even decline.

What does this mean to Fonterra?

It's not good news. At the very least it implies Fonterra's much touted "V3 strategy" is in tatters, because without a growing New Zealand supply the "volume" objective is eroded (and New Zealand volume growth is critical, given Fonterra is essentially a tolling company that has neither the capital structure nor the balance sheet to pursue large volumes of milk offshore). Fonterra also doesn't have the income or balance sheet strength to really pursue a "value" strategy either (even if its farmer-shareholders could agree to that, which is doubtful), and no-one really understood what velocity meant anyway.

Fonterra has a problem that can be described as the absence of balance sheet separation, because where Fonterra's balance sheet "stops" and its suppliers' balance sheets "start" is something of a semi-permeable membrane. This is because both are linked by payout subordination to the banks. This means that the banks get first call on payout revenue. Indeed, this is the sole reason Fonterra can maintain its current credit rating (which is high) given its current gearing (which is also very high when it should be considerably lower).

The combination of a highly indebted Fonterra with a sizeable minority of highly indebted shareholders in an environment of a structurally lower farm gate milk price introduces significant fragilities across the entire industry as the same dollar is essentially promised twice.

Payout subordination notwithstanding, a prudent Fonterra will need to de-lever its balance sheet and in the absence of putting out a rights issue it needs to think about retentions or asset stripping (or both).

Fonterra is already starting down the asset-stripping track - recently selling its share of Dairy Concepts (which, until quite recently, was trumpeted as a great example of Fonterra moving into higher value products). Outside of shuffling activities, such as selling off and leasing back its tanker fleet (which must be worth around \$250m), the only bits that are easy to separate are the value-added businesses such as Tip Top (reputedly worth upwards of \$600m). However, the net result of asset-stripping will be to limit Fonterra to being a FedEx for milk powder.

If retentions are the funding source then it means shaving either the farm gate milk price or the dividend stream (or both) - and neither is attractive.

In the world of a static New Zealand milk supply Fonterra still has a capital structure problem in that it has merely swapped a redemption problem with a stranded asset problem - and given the recent investment in wholemilk powder processing a falling New Zealand milk supply is likely to make Fonterra even more unbalanced with a yet greater reliance on one product (WMP) and one market (China) as it is forced to write down the processing assets of lower-value product lines.

Fonterra's supply base is also reputedly non-normally distributed - as about 30 per cent of shareholders (by number) produce about 70 per cent of Fonterra's milk (by volume). If this asymmetry matches the debt asymmetry then that is cause for serious concern for Fonterra, because prospective farm purchasers may by-pass Fonterra and simply build their own processing plants (and vertically integrate along the entire value chain).

What does this mean to the Government?

First and foremost the Government has a competition policy problem in that Fonterra is hamstrung by a milk-pricing manual of its own design that prices milk based on "an imaginary friend" rather than Fonterra's actual performance - and this imaginary friend is likely to cause more damage to Fonterra than to its competitors. It also reduces the level of contestability in relevant markets, and by favouring static productive efficiency over dynamic efficiency arguably stifles the sector of innovation by reducing firm-level profitability.

Secondly, the Government has an industrial policy problem in that the creation of Fonterra means there is an absence of alternative business strategies, which magnifies any failures or stumbles that befalls Fonterra. In short, the industry has all its eggs in a single basket.

Thirdly, the Government has an economic development problem as the BGA export growth figures are now highly doubtful if there is little or no growth in dairy volumes (and a Fonterra unable/unwilling to value-add or upgrade).

Fourthly, the Government has a programme-policy problem in that schemes such as the Irrigation Acceleration Fund are now superfluous because projects like the Ruataniwha are neither commercially nor economically feasible as they were premised on a \$6.50 farm gate milk price with irrigated dairy being the cornerstone user.

Finally, it has a policy credibility and inconsistency problem regarding the exclusion of agriculture from the Emissions Trading Scheme and the cost of agriculture's emissions being socialised to taxpayers. This is nothing more than a direct government production-based subsidy. Given a cow produces at least three tonnes of emissions a year and New Zealand has 6.5 million dairy cows then that implies a subsidy of \$97.5m a year at \$5 a tonne of carbon if all dairy emissions are included. At 1.8 billion kgMS total production, that's a subsidy of more than 5 cents kgMS for each \$5 of carbon costs.

What about the extra billion kgMS?

Fonterra has talked about the New Zealand milk supply growing at a 3.5 per cent CAGR, which leads to an additional 1 billion kgMS by 2025 - indeed, the Government's BGA export target of doubling the value of exports as a percentage of GDP assumes a significant volume increase from dairy. This is a big deal, as it took New Zealand 100 years to get to 1 billion and a further 15 to 1.8 billion - so an extra billion within a decade is enormous.

Let's assume productivity gains of a little over 10 per cent with the existing herd which is about 200 million kgMS. This leaves 800 million kgMS to be produced by "new" cows.

Let's also assume each cow can do 400kgMS a year - so to get 800 million kgMS we need an extra 2 million cows.

Now, let's say that each cow lasts for five lactations - so that's a 20 per cent turnover rate of cull cows a year. This means you need 2.4 million cows to maintain a 2 million milking herd.

Cows have a water footprint equivalent to between 14 and 21 people - so using 15 as the multiplier an extra 2.4 million cows is like increasing New Zealand's population by 36 million people, though without a sewage system (though some streams will be fenced [and some not] and there will be some riparian strips).

Assuming a carbon price of \$10 per tonne in 2025 and agriculture still being outside of the ETS the subsidy from taxpayers to farmers will be:

\$195m a year for the 6.5 million cows and \$72m for the extra 2.4 million cows.

This is a grand total of \$267m a year.

Wellington-based economist Peter Fraser heads Ropere Consulting.

- Stuff

Higher milk production in India contributes to world's oversupply

By [John Boylan](#) on 01 March 2016

<http://www.farmersjournal.ie/>



While most analysts focus on the EU, the US and New Zealand, India produces and consumes half of the world's butter.

India's dairy industry has expanded rapidly over the past two years and the country is the world's largest producer and consumer of butter, says a US-based analyst.

Half of the world's butter is produced and consumed in India, which has a population of 1.130bn, the second highest in the world after China.

Sarina Sharp, agricultural economist with the Chicago Mercantile Exchange's Daily Dairy Report, said: "The global dairy trade focuses more on Europe, the US and NZ, because they are bigger players in the export markets, but growth in Indian milk production is a big part of the global oversupply story because, like China, India's growing domestic production has displaced imports."

She added: "While most analysts have focused on EU milk production since quota was eliminated last spring, EU growth is expected to slow after the initial post-quota surge; however, India's milk surge is nowhere near plateau."

According to Sharp, production of cow and buffalo milk in the 2014/15 season reached 146.3mt, up 6.3% from the previous season.

According to the US Department of Agriculture's semi-annual Dairy World Markets and Trade report, India's cows produced 64m tonnes of milk in 2015, up 5.8% from 2014 and an astounding 11.3% over the two-year period from 2013-2015.

How One Dairy Stock Became a Cash Cow

Updated on March 1, 2016 — 2:56 PM IST
<http://www.bloomberg.com/news/articles>

For Gillian Fyvie, a splash of milk on her cereal typically led to stomach ache, bloating and a swollen tongue. Not since making the switch.



a2 Milk

Photographer: Brendon Thorne/Bloomberg

Fyvie's symptoms were avoided not with soy, organic or even lactose-free dairy, she says, but a type of cows' milk from a2 Milk Co. The Sydney-based company is gaining an international following for its products, developed from the premise that the milk most of the industrialized world has consumed for generations is causing everything from digestive discomfort to diabetes.

"I tried it expecting to be allergic," said the 30-year-old nurse from Inverness, Scotland. "I didn't react. I love it. I'm going to look into making ice cream with it, maybe making yogurt, too."

Since its debut in 2003, a2 Milk has challenged the common wisdom in dairy retailing, grabbing almost 10 percent of the fresh milk market in Australia with a product that sells for about A\$2.80 a liter (\$2 a quart), more than double the price of regular house-brand milk. Last month, the company raised its profit forecast and predicted revenue may surge 126 percent to as much as NZ\$350 million (\$230 million) in the year ending June 30.

A1 Versus A2

The point of difference is that a2 Milk products are sourced from dairy cows that produce only the A2 type of beta-casein protein, whereas most dairy contains both A2 and A1. Sales of the company's A1-free fresh milk, milk powder, ice cream and other dairy goods drove an 80-fold increase in first-half profit and enabled a2 Milk to fund a foray into China's booming \$19.9 billion market for infant formula.

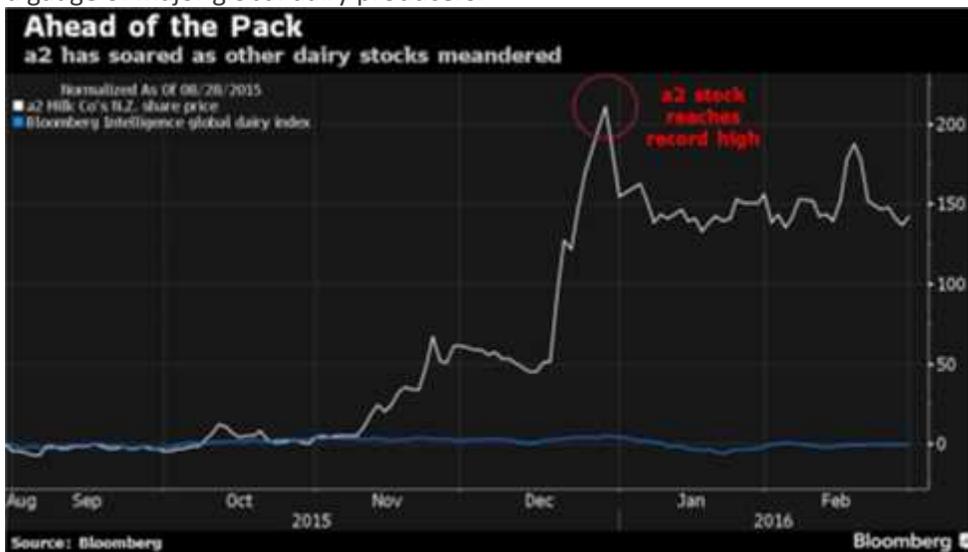


a2 Milk factory

Photographer: Brendon Thorne/Bloomberg

Founded in 2000 by New Zealand scientist Corran McLachlan and multimillionaire farm owner Howard Paterson, a2 Milk's market value has more than tripled to NZ\$1.2 billion over the past year. The company, which still has an Auckland office, entered the U.K. in 2012 and expanded into the U.S. last year.

In Australia, where a2 Milk's products are sold in every major grocery chain and more than 140 cafes, the shares have jumped 189 percent to A\$1.635 since they began trading in Sydney less than a year ago. By far the best performer on New Zealand's S&P/NZX 50 Index the past year, a2 Milk has outperformed a gauge of major global dairy producers.



“In Australia, a2 has become mainstream,” said Oyvinn Rimer, a research analyst at Harbour Asset Management Ltd. in Wellington, which holds just under 5 percent of a2 Milk stock. “Very sophisticated consumers are buying into this product. They believe it’s better for them, and they’re willing to pay more for it.”

A2 Milk has outstripped sales of organic milk in Australia, said Michael Harvey, a senior dairy analyst with Rabobank International in Melbourne. Its expansion has been particularly remarkable given the competitive response from established dairy companies, he said.

Scare Campaign?

One competitor, Lion Dairy & Drinks, owned by Japan's Kirin Holdings Co., added "naturally contains A2 protein" to the label of its regular A1- and A2-containing milk. Parmalat SpA's Australian chief executive officer Craig Garvin said a2 Milk may be damaging the dairy industry with a scare campaign that's misleading consumers.

Theo Spierings, chief executive officer of Auckland-based Fonterra Cooperative Group Ltd., the world's biggest dairy exporter, said in an interview that A2 milk was just a "marketing concept."

Rival companies have looked for ways to slow a2 Milk's growth, said Geoff Babidge, the company's managing director since 2010. "Clearly, in our experience, that has not been successful," he said in an interview on Jan. 22.

To understand how A2 milk became a dairy-aisle sensation, you have to go back about 5,000 years. That's when scientists say a genetic mutation occurred in north European cows and the A1 protein began showing up in milk that had until then only contained A2 protein, says Keith Woodford, an agri-food professor at New Zealand's Lincoln University and occasional consultant to a2 Milk.

Holstein-Friesians, the black-and-white mainstays of modern dairies which originated in the fields of northern Germany and the Netherlands, typically produce milk that's about 50 percent A1 protein, according to Woodford.

Milk Devil

The theory proffered by a2 Milk and supportive scientists such as Woodford, who published a book in 2007 on the A1 versus A2 debate called Devil in the Milk, is that A1 forms a fragment when digested that can trigger inflammation in the body, potentially leading to ailments from irritable bowel syndrome and eczema to schizophrenia and autism.

A 2005 [review](#) published in the European Journal of Clinical Nutrition found no convincing evidence A1 protein has an adverse effect on humans, and the [Dietitians Association of Australia](#) says most of the claims made about A2's benefits are anecdotal and not based on a lot of evidence.

“Conceptually, it seems like a long shot,” said [Malcolm Riley](#), a nutrition epidemiologist with Australia's Commonwealth Scientific and Industrial Research Organisation in Adelaide. “But the sort of impacts that have been suggested to A1, or the corollary of not being impacted by A2, are so important that it seems to me it's worth investigating.”

'Feel Better'

A2 Milk has [championed research](#) into A1's purported deleterious effects and promoted the idea that people who drink the company's milk [“just feel better.”](#) It says a quarter of consumers in western countries report some kind of discomfort after drinking regular milk, citing a 2010 [paper](#) from the Innovation Center for U.S. Dairy, an industry research group.

When it comes to China, that figure is closer to 85 percent, said Andrew Clarke, a2 Milk's chief scientific officer, pointing to company surveys.

That's made China a particularly attractive market for [a2 Platinum](#), the infant formula brand whose first-half sales rocketed 340 percent to NZ\$73.9 million. Managing Director Babidge is also targeting the [U.S.](#), which he said could overtake Australia as the company's biggest market in as little as four years.

Whole Foods, Kroger

The company sources its American milk from four U.S. dairies, mostly in Nebraska, and sells to stores owned by Whole Foods Market Inc., Sprouts Farmers Market Inc., Albertsons Cos., as well as Kroger Co., the largest U.S. grocery chain.

The National Milk Producers Federation, the lobby group for U.S. dairy farmers, welcomes “innovation in the dairy aisle to ensure cows’ milk and dairy foods meet consumers’ needs,” said spokesman Christopher Galen.



Raw A2 milk sample

Photographer: Brendon Thorne/Bloomberg

In Australia, a2 Milk has been a boon for Paula and Michael Gray, whose farm at Rollands Plains, about 400 kilometers (249 miles) north of Sydney, has been supplying the company for almost four years. That means every tanker-load of milk -- and they sell almost 2 million liters (528,000 gallons) a year -- is checked to make sure it contains no A1 protein. Tissue samples from each cow are also sent to the company for testing.

A higher milk price is only one of the benefits the Grays enjoy supplying a2 Milk, said Paula, 39. Her 8-year-old son’s eczema has cleared up since the family started producing, and drinking, it. Another son, 10, gets bloating and diarrhea after consuming regular milk, but not when he drinks A2, she said.

“We only drink A2 milk at home, straight out of our vat,” Paula said. “The health benefits are certainly there. For some people, A2 is a real assistance in their life.”

(An earlier version of this story corrected the ownership of Lion Dairy & Drinks.)



