

INDIAN DAIRYMAN

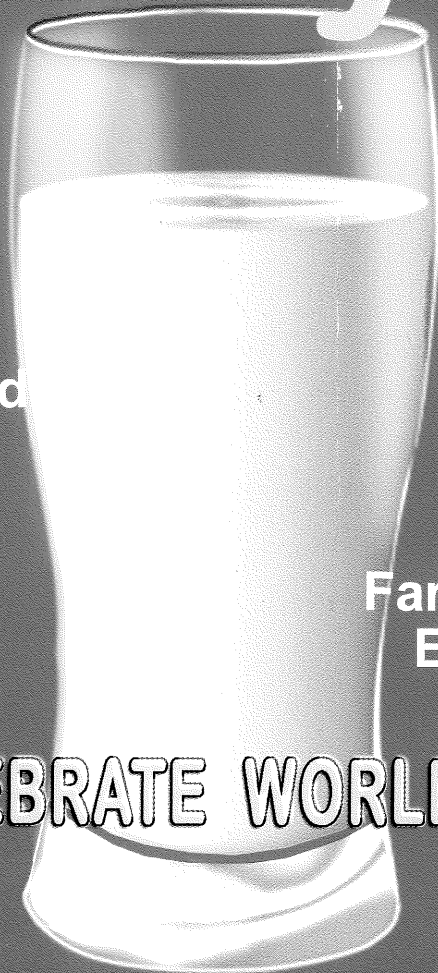
THE SPIRIT OF THE DAIRY INDUSTRY

₹ 150 May-June 2014

World Milk Day

HEALTH

Role of Yogurt in
Human Diet:
Health Benefits and
Key Concerns



TECHNOLOGY

Precision Dairy
Farming: An Emerging
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LET US CELEBRATE WORLD MILK DAY!

World Milk Day

Growing from strength to strength

The Food & Agriculture Organisation (FAO) of the United Nations designates 1st June annually as World Milk Day. With celebrations across several countries on Sunday, 1st June 2014, World Milk Day would provide the perfect opportunity to promote the role of milk in a healthy balanced diet. Representing some 191 member nations, F.A.O.'s focus on milk supports its mandate to raise levels of nutrition the world over. Initiated in 2001, the intent behind World Milk Day was to celebrate all aspects of milk; its natural origin, nutritional value, the numerous tasty products, its economic importance in rural regions as well as in the entire food chain which actively encourages dairy consumption. All these facets are celebrated in many countries across the world, and the number of countries and activities are increasing every year. The fact that more than 50 countries including Malaysia, Colombia, Romania, Germany, UAE and India choose to do this lends additional importance to individual national celebrations and shows that milk is a global food.



Indian Dairy Association (IDA) has been a leading advocate of World Milk Day and has been actively celebrating it since 2012. Several programmes and activities including public messages designed to inculcate an awareness of the goodness of milk have been its hallmarks. On 1st June 2013, IDA Headquarters as also its various zones and chapters conducted a plethora of events including seminars and conferences throughout the country. Milk products were served to participants and hoardings indicating virtues of milk were displayed in IDA premises and other dairy organizations.

The Association has also been a pioneer in organizing activities for schoolchildren to encourage milk consumption. A National Milk Day was celebrated by IDA-North Zone on 1st November, 2013 which marked the culmination of a programme designed to apprise schoolchildren of the overriding importance of milk in their lives. An essay competition on the topic "Milk is the Nectar of Life" was organized which drew an

overwhelming response from children of classes IX to XII. Prizes for the same were distributed in an informative and interactive function at Guru Harkishan Public School, New Delhi on 1st November which was celebrated as National Milk Day. Flavoured milk and kheer were distributed to children as part of the event.

We are also witnessing a surge of activities related to World Milk Day internationally. Most nations joined World Milk Day in 2008.

Since then its activities, in conjunction with global events, emphasized the goodness of milk by engaging local celebrities to spread the message. In New Zealand, which leads world milk exports, the Day is celebrated as a source of human nutrition. Importance of milk is depicted in various food blogs and holiday sites.

The International Dairy Federation and its members work together to promote activities taking place globally on and around this day — a variety of promotional activities are launched on its website as well. Similarly, in South Africa, various NGOs, private and government health organizations including SAMPRO (South African Milk Processors' Organization) organize communication programmes promoting milk's nutritional advantages. Elsewhere, free milk distribution camps are organized. Discussions, quiz competitions, sports activities and essay-writing are also organized for school, college, and universities students. Other activities observed in various countries include:

- Farm visits to observe milk production. Locally produced milk and milk products are distributed to visitors.
- Live radio shows from farms during which activities for kids are planned.
- In Austria, the National Marketing Agency for Agricultural Products organised the campaign "Milchprodukte – krönender Genuss – 2013" on television, newspapers, internet and the social media focusing on milk, cheese and yoghurt.

With celebrations across several countries on **Sunday, 1st June 2014**, World Milk Day would provide the perfect opportunity to promote the role of milk in a healthy balanced diet. Initiated in 2001, the intent behind World Milk Day is to celebrate all aspects of milk — its natural origin, nutritional value, the numerous tasty products, its economic importance in rural areas as well as in the entire food chain. Indian Dairy Association (IDA) has been actively celebrating World Milk Day with several programmes and activities including public messages designed to inculcate an awareness of the goodness of milk.



- Around the World Milk Day, many visits are organized in Kindergartens and schools to promote milk and milk products.
- Media activities including Press releases inform people about the benefits of milk consumption and dairy farmers' efforts to produce healthy products.

Benefits

Milk is a near-perfect food source packed with vital vitamins and minerals that keep our bodies healthy and strong. Due to the importance of milk for babies, teens and adults, World Milk Day aims to pay homage to this prominent food source. It is loaded with nine essential nutrients that immensely benefit our health in the following ways:

- Calcium which builds healthy bones and teeth; maintains bone mass
- Protein which serves as a source of energy; builds/repairs muscle tissue
- Potassium that helps maintain a healthy blood pressure
- Phosphorus which strengthens bones and generates energy
- Vitamin D that helps maintain bones
- Vitamin B12 that helps maintain healthy red blood cells and nerve tissue
- Vitamin A that helps maintain the immune system,

normal vision and skin

- Riboflavin (B2) which converts food into energy
- Niacin which metabolizes sugars and fatty acids.

A single glass of milk is loaded with 15 essential vitamins and nutrients. It contains as much protein as an egg, as many carbohydrates as a quarter cup of rice and the same calcium as 16 cups of spinach. Regular serving of dairy helps maintain healthy bones and ensures children get the right amount of essential vitamins and minerals for growth. Milk is also a good source of lean protein required by our bodies to rebuild muscles, repair tissues and fight infections.

Further, dairy is one of the world's most amazing super foods and it is heartening to note that its huge benefits are being recognised again this year through the World Milk Day. Five things which many people do not know about dairy are:

- Research has shown that eating cheese can help protect against dental caries. The nutrients in dairy, which are thought to contribute to this, are casein, phosphorus and calcium.
- Milk is one of the best sources of calcium and a single glass contains around a quarter of a person's daily calcium needs — that's as much as four cups of broccoli and 16 cups of spinach.
- Researchers have found that drinking milk can help people manage their weight. Three servings

of dairy in a calorie-controlled diet can help achieve greater weight loss.

- Containing all the nine important amino acids, there is no denying that milk is an excellent source of protein. In fact tryptophan — one of the nine amino acids — can actually help induce sleep.
- Spicy food often leaves one with a burning sensation. Dairy offers the perfect solution. Milk and other dairy products contain casein which can help soothe burning taste buds.

On the negative side there have been reports of the casein in milk causing autism and spectrum disorders. Excessive consumption of milk has been linked to an increased risk of developing Parkinson's disease and potentially, prostate cancer. While debates will continue about the benefits and risks of milk consumption, it cannot be disputed that as a source of fat, protein, carbohydrates, salts, minerals and vitamins, it continues to hold significant promise in addressing malnutrition and poverty, particularly as livestock management improves in the developing world. In fact, reduced-fat varieties of dairy products are encouraged and are widely available. The calcium content of reduced-fat dairy products is relatively similar to the respective whole-milk products. Reduced-fat dairy foods are nutrient-rich and can assist in meeting the recommended intake of a range of nutrients. Further, dairy products that have cultures in them, such as yogurt, buttermilk, and some cheeses may be consumed. They have less lactose, and the cultures help the body digest

The Father of White Revolution in India, Dr Verghese Kurien was born on 26th November, 1921. To mark the legendary dairyman's role in transforming India's dairy sector, it would be appropriate if a national milk day or India milk day is celebrated on his birthday, i.e. 26th November each year.



the little bit that is there.

So there is no reason to not enjoy milk as a part of a balanced diet and healthy lifestyle!

The following ten myths regarding milk consumption are widely prevalent:

Myth #1: Consuming dairy products can lead to weight gain.

Fact: Weight gain occurs when one consumes more calories than the body can burn as energy. Contrary to this common myth, research both in animals and humans suggest that including three servings of low fat dairy foods in a calorie controlled diet may help achieve greater weight loss (Zemel, 2005).

Clinical trials have also shown a strong correlation between increased calcium intake and reduced body weight, body fat percentage and waist size (Zemel, 2005).

Myth #2: Spinach is as good a source of calcium as milk.

Fact: There is more calcium in 1 cup of milk than there is in 16 cups of spinach. One will need to eat more than 48 cups of spinach to get the recommended daily intake of calcium (USDA, 2010). Furthermore, milk contains Vitamin D which enhances calcium absorption (Wasserman, 2004).

Myth #3: People with lactose intolerance should avoid dairy foods.

Fact: Lactose intolerance is often confused with milk allergies. Lactose intolerance is not an allergic reaction to dairy foods. Rather it is the inability to digest the milk sugar lactose. Lactose-free milk and yogurt are good alternatives to drinking milk for people who are lactose intolerant. Aged cheeses such as Cheddar and Swiss are also low in lactose. Many people with lactose intolerance can drink up to 1 cup of milk daily without

any problem (Miller *et al.*, 2000).

Myth #4: Milk causes asthma.

Fact: While infants with milk allergies are more likely to develop asthma later in life, there are no scientific data to support that consuming dairy foods makes a person asthmatic.

Myth #5: Consuming dairy foods can increase the risk of heart disease.

Fact: A diet high in saturated fat regardless of the source is likely to cause heart disease, and not dairy foods. Recently, it was reported that the evidence linking saturated fat intake to heart disease is lacking (Siri-Tarino *et al.*, 2010).

Further, today saturated fat from butter is believed to be not as bad as transfat filled hydrogenated vegetable fats such as margarine and other so-called 'healthy' spreads. Those still wishing to reduce their fat intake can consume low fat dairy foods and receive the nutritional benefits of dairy foods without the high fat (Berner, 1992; Miller, 2000).

Myth #6: If you take calcium supplements you don't need milk.

Fact: Milk isn't only a good source of calcium but it also provides other high quality nutrients such as high quality protein, vitamins A, D, B12, riboflavin; zinc; potassium and magnesium.

Fermented dairy foods such as yogurt also serve as an excellent carrier of probiotic organisms and prebiotics, which are important for gastrointestinal health.

Taking supplements does not provide the enjoyment of drinking a cold glass of milk; pouring cold milk on a bowl of cereal for breakfast; eating a creamy delicious bowl of ice cream on a hot summer day; or enjoying the pleasure of a creamy cheese sauce on nachos, or melted cheese slices in a hamburger.

Myth #7: Milk causes mucus.

Fact: After drinking whole milk or eating ice cream some people mistake the thin coat or residue in their mouth and throat for mucus.

This is not excess mucous but the normal creamy texture of milk fat which melts near body temperature. A study conducted by Pinnock and co-workers (1990) reported that there is no association between milk and dairy products intake and mucus production in healthy as well as rhinovirus infected individuals.

Myth #8: Humans are not designed to drink cow's milk.

Fact: Humans are designed to eat plant as well as animal products such as meat and dairy products.

Domestication of cattle (and consumption of milk and dairy foods) dates back to 6000 BC.

We are equipped with the lactose enzyme in our gut that aids in the digestion of cow's milk. Consequently humans have enjoyed consuming dairy foods over many, many centuries.

If we were restricted to consuming milk only from our own species, we would not enjoy many of the dairy foods we enjoy today; such as blue cheese on our salads, ice cream on apple pie, sour cream on baked potatoes, Mozzarella cheese on pizza, shredded cheese on our tacos, and buttermilk in our pancakes.

Myth #9: Drinking milk can cause kidney stones.

Fact: Milk may actually protect against the formation of kidney stones (NHS, 1990). It was suggested that the calcium in milk may bind to oxalates in food so that they can no longer be absorbed by the body, reducing the risk of kidney stones.

Myth #10: Eating cheese and high fat dairy foods can cause acne.

Fact: Science does not support any link between acne and dairy foods. Importance of vitamins A and D in skin health is well established. Milk is a good source of vitamins A and D in the diet (Miller *et al.*, 2000).

I would like to mention an important suggestion that was mooted by members and participants during a meeting held last year on the occasion of World Milk Day at IDA House. It was proposed that in deference to our greatest dairyman, the legendary Dr. Verghese Kurien, Milk Day in India ought to be celebrated on his birthday i.e. 26th November. This would be a fitting tribute to the messiah who revolutionized the milk industry in the country. 26th November could be termed as National Milk Day or India Milk Day where events pertaining to the local context would be celebrated across the length and breadth of the country, thereby honouring the greatest dairyman India has ever produced.

N. R. Bhasin

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This year IDA would be celebrating World Milk Day on 2nd June 2014 as 1st June would be a holiday.