What is Organic Dairy Farming?

Organic Dairy Farming means **raising animals on organic feed** i.e., pastures cultivated without the use of fertilizers or pesticides, along with the **restricted** usage of antibiotics and hormones. Milk produced from such dairy cattle qualifies as organic milk.

How Organic Milk can be produced

In order to produce Organic Milk, Dairy Farmers should take care of the following things:

Cattle should be fed 100% organic feed. Organic Crops, hay, and pastures should be grown without the use of synthetic fertilizers and pesticides that have not been carefully screened and approved for use. Non-natural feed additives & supplements such as vitamins & minerals must also be approved for use. Antibiotics should not be used unless the cattle are ill and only approved health care products should be used. All animals must have access to the outdoors. Also, animals over six months of age must have access to pasture during the growing season. The welfare of animals must be attended to. An organic farmer must keep sufficient records to verify his or her compliance with the standards. Genetically modified organisms are prohibited. No synthetic growth hormones should be used. A proper herd health program should be there including strategies for disease prevention, parasitic control, and disease treatment. Animal-based fertilizers are used for organic dairy farming which includes blood meal, bone meal, feather meal & fish meal. Composts and manures are also widely used.

Benefits of Organic Milk for Consumers

Conventional milk may contain residues of hormones (used on dairy animals for excess milk production), pesticides, antibiotics, urea, solvents, etc. which can have a serious impact on the individual's health, while organic milk is free from all these things and hence is of superior quality. Organic milk contains Conjugated Linoleic Acid (CLA). CLA helps in boosting immunity and reduces the growth of tumors and hence is better for heath.

Organic milk has more omega 3 than non-organic milk. Omega3 is an essential fatty acid that is required for healthy growth and it has been the reason for various health problems that have seemed to increase in recent years. Regular intake of omega 3 fatty acids protects you from various diseases and helps to reduce the incidence of heart disease, inflammation (in skin diseases like eczema), cancer, and arthritis.

Organic cows are grazed on pastures that are grown through organic means. Therefore, their milk is not contaminated with harmful chemicals such as the residues of pesticides, fertilizers, and hormones. Furthermore, this nutrient-rich organic milk does not contain traces of antibiotics, GM feed, urea, or fertility hormones, as these are not fed to the cows to increase their milk production.

Organic milk has a two to three times higher concentration of antioxidants like <u>lutein</u> and zeaxanthin than non-organic milk. Lutein is extremely important for eye health and is effective in preventing numerous eye diseases such as macular degeneration and <u>cataracts</u>. Zeaxanthin is also important for good eye health. It protects the eye from UV damage and the impact of free radicals. It is very helpful in preventing cataracts, diabetic retinopathy, glaucoma and macular degeneration.

Research conducted by the **Danish Institute of Agricultural Sciences and the University of Newcastle** has shown that organic milk has a higher concentration of vitamins such as <u>vitamin A</u> and E than conventional milk. Since organic cow's graze on fresh grass and clover, the milk they produce has about 50% higher <u>Vitamin E</u> and 75% higher beta carotene. Vitamin E is useful for protecting your body's cells from free radicals and thus delays signs of aging. It also reduces the incidence of various chronic diseases including heart disease and cataracts. Normally, a person requires 15 milligrams of Vitamin E in the form of alpha-tocopherol per day. Vitamin A, also called retinol, is useful for guaranteeing strong eyesight, increasing resistance to infections, good skin, bone growth, tooth development, reproduction and gene expression.

Benefits for Dairy Farmers

Increasing Demand: Consumer demand for organic milk has jumped dramatically over the last decade, driven largely by ample evidence that it is more nutritious and less damaging to the environment than milk produced in crowded, polluting CAFOs (confined animal feeding operations).

Economical Advantage: Organic milk is preferred by the health cautious people because of its more nutritive value and hence leads to greater levels of economic activity. Also, organic milk can charge premium to customer due to its numerous health benefits. So, a farmer can earn higher profitability per animal.

Organizations engaged in organic dairy farming

- Some organic Dairy Brands worldwide:
- Some Organic Dairy Brands in India:

Organizations	Active in (Location)
Akshaykalpa	Bangalore
Annam Milk	Chennai
IOrganic Milk	North Delhi, South Delhi & West Delhi
TruMilk	Mani Majra, Panchkula, Zirakpur, Ludhiyana, Delhi & Gurugram
Pride of Cow's Milk	Mumbai, Pune & Surat

Scope for Organic Milk Production in India

<u>Organic dairy farming</u> is getting increasing attention in India owing to the rising health consciousness among consumers regarding the consumption of regular milk.

Organic milk is free of antibiotics and other chemicals and has higher nutritional content as compared to regular milk. The milk is enriched with omega-3 fatty acids and some vital antioxidants which are nor present in regular milk. Driven by these health benefits, consumers are increasingly opting for organic milk and other dairy products. The economic growth in the country and increasing disposable incomes of consumers have also propelled the adoption of the organic variants. The organic milk market in India grew at a CAGR of around 30% during 2014-2019 and it is expected to continue its robust growth during 2020-2025.

Centre of Excellence for Dairy Skills in India (CEDSI) conducts various training programmes for stakeholders associated with dairy and especially for dairy farmers. Some of the training programmes have been customized to suit the need of organic dairy farmers so that they can upskill themselves and along with higher profitability a sustainable dairy ecosystem can be created.

References:

- 1. Agriculture and Processed Food Products Export Development Authority (APEDA)
- 2. Danish Institute of Agricultural Sciences(<u>http://www.istc.int/en/institute/12423</u>)

- 3. Food Agriculture Organization
- 4. Krishi Jagran
- 5. National Centre for Organic Farming
- 6. https://www.organicfacts.net/