Development in DAIRY INDUSTRY

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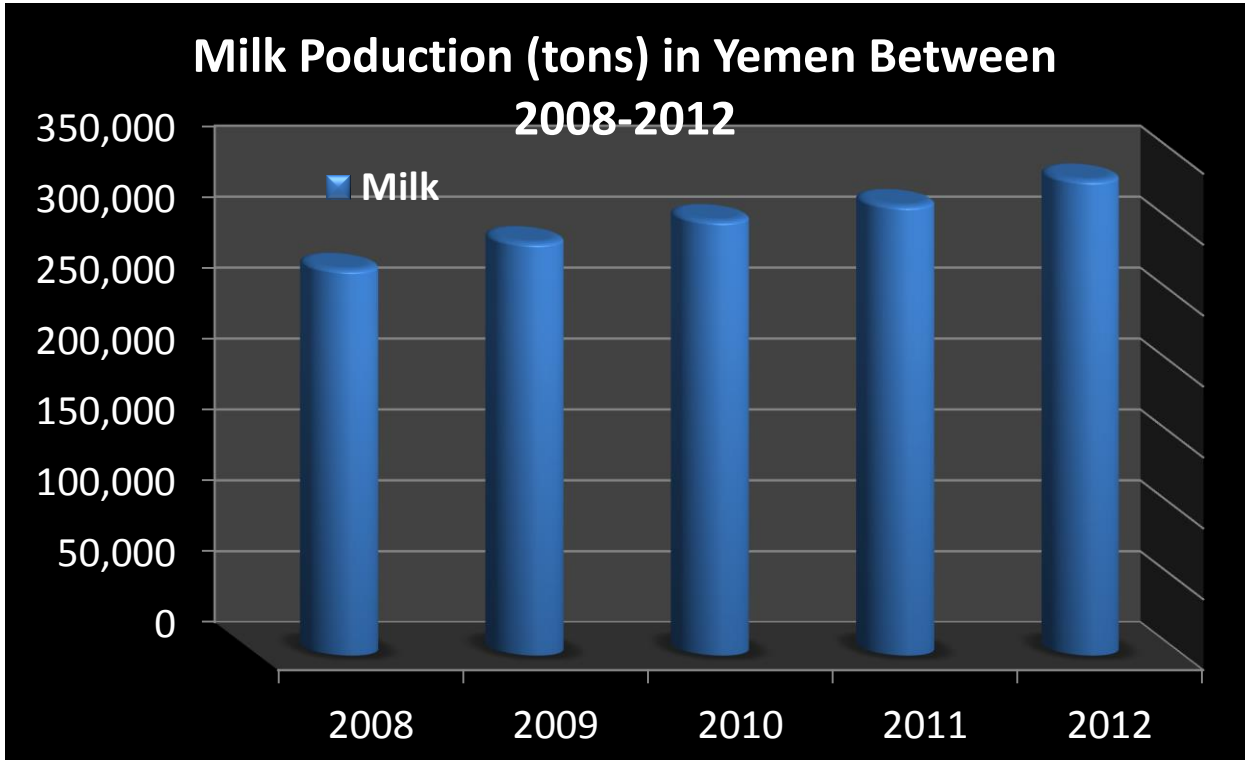
Local Scenario of Dairy Industry

- Milk and milk products are considered one of the most basic sources of food because they contain the basic components needed by the body in the construction of protein and fats, and sugars , minerals and vitamins . It is also an important source for milk industries are many products that Milk is one of the basic materials in their production . Also constitute one dairy sources of income for subsistence large segment of the small-scale producers in rural and urban areas , and vary its importance in the value of agricultural production and livestock from one area to the other in Yemen .

- some families in certain provinces such as Taiz are depending on the small scale traditional cheese making to secure their livelihood and improve their income. The dairy sector is also provides jobs creation for a number of young people as well as for ordinary labor force. The dairy industry are growing in terms of production's volume and products types from year to year as a result of expansion in dairy production to meet growing demand.

- It is worth mentioning that the resources and capabilities for production of milk in the present and in the near future is limited and therefore, dairy sector in Yemen will continue to rely dramatically on importation.
- Cow's milk, in its different forms, is the main source for the production of milk and dairy products in Yemen.
- Dairy industry has experienced significant growth in recent years to keep up with the growing demand for milk and milk products due to the increased demand for milk and milk products by consumers.

- The production of milk in the country has grown by 23% during the period between 2008 and 2012 (table 4 below).



- At the national level, the quantity of fresh milk produced in the commercial dairy farms is small (average 12–15 tons/day).
- The production of commercial dairy products from locally produced milk is still limited to cheese product known as Taizi cheese.
- Currently smoked cheese (Taizi Cheese) is made using goat milk and marketed without the use of cold chain.

Imported Milk and Dairy Products

- The total quantity of imported milk and dairy products increased between 2008 and 2012 by nearly 44%.

- Most of these imported milk and dairy products are used as raw materials in the food processing industry, and a high percentage of this produce is exported.

- The import quantities of cheese and butter, commodities that also should be supplied using the cold chain, grew about 10% between 2008 and 2012 (table 1).

Imported Milk and Dairy Products (tons), 2008–2012

	2008	2009	2010	2011	2012	Growth (%)
Milk and Cream	54,700	69,291	69,550	57,571	79,438	45
Butter	5,367	4,808	4,760	3,535	4,666	-13
Cheese	16,361	20,066	22,521	20,713	25,248	54
Others dairy products	538	1021	336	397	1288	139
Total	76,967	95,185	97,166	82,216	110,639	44

- It’s very clear that imported frozen foods are foods that need special care during transport, storage and distribution.

- Between 2008 and 2012, imported dairy products increased by 44% in volume.

- Most of the importers of these commodities, specifically skim milk, animal and vegetable oil, cheese and butter are well established, and they have cold storage facilities already in place.

National Players in Dairy Industry

Main Players of Dairy Industry in Yemen

- **The main players in the dairy industry in Yemen are the following:**

1. National Dairy and Food Co. 19 ??
2. Yemen Dairy and Juice Industries.
3. United *Dairy* & Food Industries Ltd NANA 1977.
4. Jawda Food Company 2009.

Raw Materials Used in Dairy Industry

- Cow's milk is the main source for the production of milk and dairy products in the world as well as in most Arab countries.

- As in many other LDCs, Yemen dairy industry depends on imported raw materials.

- The Imported raw materials are obtained from well established international companies with strong record of quality product.

- The raw materials include the following items:-

1. Skim milk
2. Fresh milk
3. Vegetables oil
4. Milk fat
5. Other ingredients

Constraints and Challenges Related to Milk Production in Yemen

- The government of Yemen has not pay sufficient attention to the dairy sector in the development plans and programs as it’s the case in many other countries, especially in relation to small-scale producers.
- Small holdings producing and lack of water resources has had a negative impact on the expansion of livestock production in general and in particular dairy production.

- The current dairy sector mainly depends on traditional product and natural pastures.

- The main source of animal feed is the natural pastures are affected by drought conditions that caused contentious deterioration of this pastures.

- Lack of interest of the state and society to develop pastoral productivity of local cows, but limited its role to increase the number of herds more interest in the kind of herd, causing the depletion of natural resources and contributing to desertification and low productivity of milk.


Yogurt
Yogurt

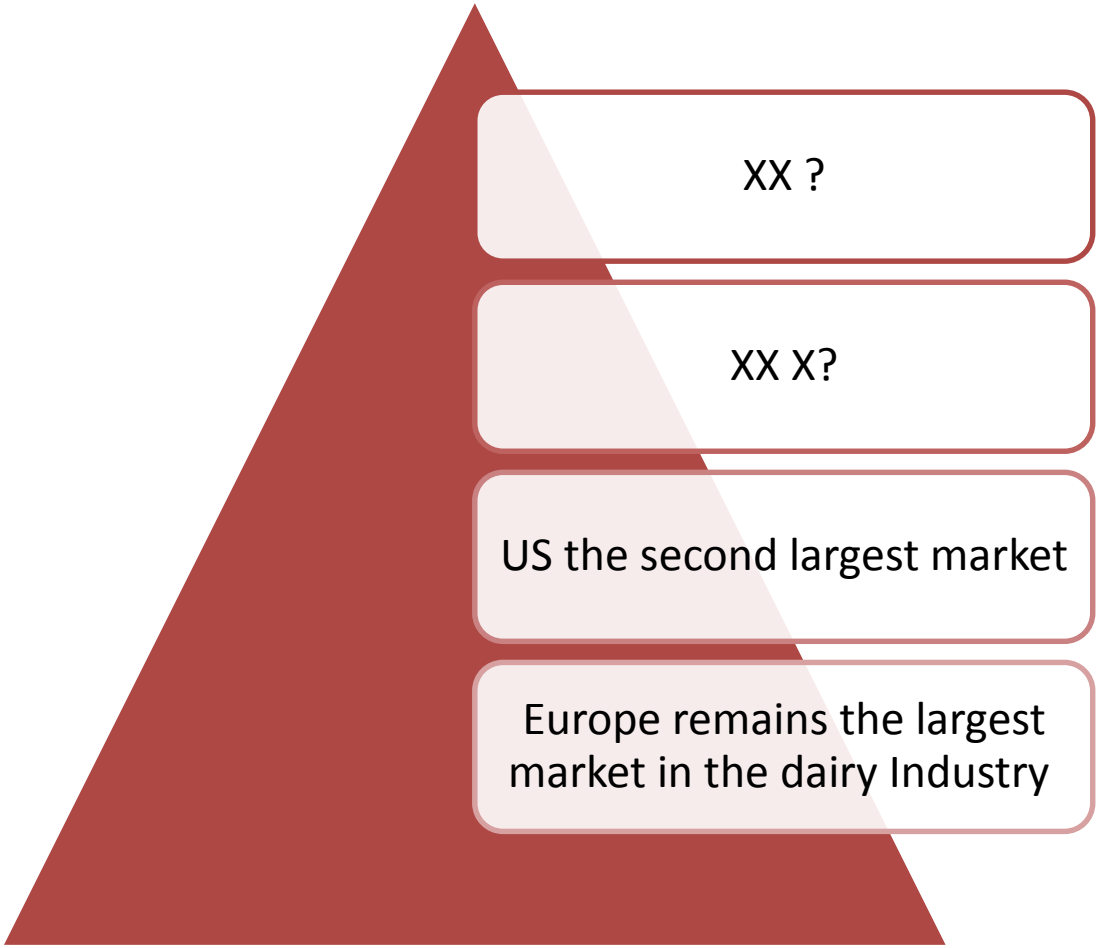

Dairy Industry
Cheese
Chilled Desserts
Milk
Yoghurt
Cream
Spreadable fats
others

Dairy Products from Yemen


حليب بقري طبيعي
Natural Cow Milk
Full Cream
يماني
يماني بيبي

Global Scenario of Dairy Industry

Global Scenario of Dairy Industry



International Players in Dairy Industry

Rank	Name	Country	Dairy sales in US$ billions, 2009
1	Nestlé	Switzerland	25.9
2	Danone	France	14.79
3	Lactalis*	France	12.68
4	FrieslandCampina	Netherlands	11.17
5	Fonterra	New Zealand	10.2
6	Dean Foods	USA	9.74
7	Arla Foods	Denmark/ Sweden	8.64
8	Dairy Farmers of America**	USA	8.1
9	Kraft Foods	USA	6.79
10	Unilever	Netherlands/ UK	6.38
11	Meiji Dairies	Japan	5.13
12	Saputo	Canada	4.97
13	Parmalat*	Italy	4.93
14	Morinaga Milk Industry	Japan	4.81
15	Bongrain	France	4.57
16	Mengniu	China	3.77
17	Yili	China	3.54
18	Land O'Lakes	USA	3.21
19	Bel	France	3.1
20	Tine	Norway	3.02

Global Players

Switzerland , started in 1866 with sales

New Zealand, started in 2001

Denmark , started in 1881

Barcelona, Spain started in 1994,

International Specific Processing Practices

- According to OECD and FAO, the milk and dairy sector will remain one of the fastest-growing agricultural subsectors over the coming decade in terms of production;
- only exceeded by poultry meat and vegetable oils.

Objective Nutrition

Objectif Nutrition N°43 (January 1999)

FORMULAS FOR INFANTS AND YOUNG CHILDREN

Diet composition of infants is of primary importance, especially in the early stages of life. Feeding has to fulfill babies' unique and rapidly changing nutritional needs. Breast milk always remains the ideal infant nourishment. However, considerable progress has been achieved in the composition and processing of commercial feeding formulas for infants and young children.

Thirty years ago, infant formulas consisted simply in largely unmodified powdered milk. Skim milk was used for infants before the age of 4 months, and whole milk thereafter. Advancement in food industry over the past few years has led to greatly improved infant formulas, now closer in composition to the unsurpassed reference, human milk.

- Starter infant formulas provide the right composition to meet the nutritional needs of infants during the first four to six months of life.

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- Follow-up formulas are intended for children after the age of four to six months (weaning formulas) and for children one to three years old (toddler formulas) who have begun a diversified diet. These formulas are closer in composition to cow's milk than starter formulas (table 2). However, follow-up formulas differ from cow's milk in the following: they are enriched with essential fatty acids (achieved by replacing all or some of the milk fats by vegetable fats, as in infant formulas), they have a higher vitamin E content and they are fortified in iron and vitamin D.
- http://www.danoneinstitute.org/objective_nutrition_newsletter/on43.php

- Improved absorption of minerals and providing a prebiotic effect (Michaelsen *et al., 2011a).*

- Other dairy products have also been used successfully in the treatment of moderate malnutrition in children.

- Fermented milk (and yoghurt) has been suggested to be a good alternative to fresh milk as it has a nutritional content similar to fresh milk (apart from less lactose); it also keeps better so the risk of growth of pathogenic bacteria is reduced (Michaelsen *et al., 2011a). "Filled milk", which is a* powdered product based on skimmed milk and vegetable oil, has the advantage that it is cheaper than whole-milk powder and the replacement of milk fat with vegetable oil could be beneficial from a nutritional point of view, depending on which vegetable oil is added, by reducing the levels of *trans fatty acids (TFAs) and SFA.*

- Although powdered milk is often cheaper and more easily available than liquid milk, it carries the risk of contamination during reconstitution.

- Evaporated milk and condensed milk should not be used as a drink but can be mixed into porridge and other foods (Michaelsen *et al., 2009). Chapter*

- Since 2005, both the American Academy of Pediatrics (AAP) and the American Heart Association (AHA) recommended that children drink skim or low-fat milk after age two. Because whole milk has more calories from fat than skim, 1% fat or 2% fat versions, the thinking was that the lighter varieties would help youngsters to avoid weight gain and curb the growing problem of overweight and obesity in childhood.

- Read more: Skim Milk May Not Lower Obesity Risk Among Children | TIME.com http://healthland.time.com/2013/03/19/skim-milk-may-not-lower-obesity-risk-among-children/#ixzz2n0o0k2dy

- Not all of the studies supported this idea, however; some found no relationship between the type of milk preschoolers drank and their body weight, while others found that skim milk drinkers were heavier than their whole milk-drinking counterparts. So Dr. Mark Daniel DeBoer, an associate professor of pediatric endocrinology at the University of Virginia School of Medicine and his colleagues turned to a large database of 10,700 children in the Early Childhood Longitudinal Survey, Birth Cohort to investigate the relationship between the type of milk children drank and their body mass index (BMI).

- Read more: Skim Milk May Not Lower Obesity Risk Among Children | TIME.com http://healthland.time.com/2013/03/19/skim-milk-may-not-lower-obesity-risk-among-children/#ixzz2n0oQfHaB

our brand

Delik
Blanco
UHT milk
UHT cream
powder milk and powder whey
"Ekstra" butter
sour cream
cheese
Dutch Type Cheese
Cream
services

"Meadow drink"

Meadow drink is an UHT product. It is produced from skimmed cows milk with vegetable fat added (3,2%). Meadow drink is available in convenient cartoons with a nut with a capacity of 1 litre. The drink remains stable for 6 months from the production date.
It can be consumed both cold and hot.

Energy content in 100ml of milk:

246 kJ (59 kcal)

Nutritional value in 100ml:

proteins - ca 2,6g,
carbohydrates - ca 4,9g,
fat - ca 3,2g,


No Artificial Growth Hormone†
Tastes Rich & Creamy Like 2% Milk
SMART BALANCE
Fat Free Milk
and
Omega-3s
American Heart Association
CERTIFIED
25% MORE CALCIUM
Tastes Rich & Creamy Like 2% Milk
25% MORE PROTEIN
ULTRA-PASTEURIZED
VITAMINS A & D ADDED
HALF GALLON (1.89L)


SMART BALANCE
Fat Free Milk
SMART BALANCE
Fat Free Milk
SMART BALANCE
Heart Right
Fat Free Milk
Heart Right
SMART BALANCE
Low Fat Milk

- Studies suggest that milk enriched with plant sterols shows promise in terms of reducing CVD risk factors (Madsen, Jensen and Schmidt, 2007; Hansel *et al., 2007;* Mannarino *et al., 2009; Ba*ꝏ*uls et al., 2010). Plant sterols, such as β-sitosterol and* campesterol, are naturally occurring compounds that are found in all foods of plant origin, including vegetable oils, nuts, cereal grains and legumes.

- Plant sterols are reported to reduce the plasma level of LDL-cholesterol but the precise mechanism of action is not fully understood (Rudkowska, 2010).
- Although plant sterols/stanols have received acceptance by the European Union (EU) (EFSA, 2009b) and FDA (FDA, 2009), discussions are ongoing regarding the risk of overdosing with these ingredients, and their use is limited in industry

- Some fat and healthy vegetable oils are also needed to provide essential fatty acids and to enhance the body’s ability to absorb vitamin A from plant foods.

Benecol® Yogurt Drinks

Drinking one little bottle per day contains just the right amount of pla[illegible]n to lower your cholesterol. These handy little drinks come in a delicious range of fl[illegible] are enjoyable on their own or poured over cereal or fruit. Enjoy our fresh-tasting Original or lower calorie Light version. Or treat your taste buds to the fresh fruit flavour of Blueberry, Raspberry, Strawberry or Peach & Apricot.

Blueberry

Raspberry

Peach & Apricot

Strawberry

Original

Light

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Benecol® Servings Guide

1-a-day

Benecol® Servings Guide

1-a-day

Enjoy one bottle of Benecol® yogurt or dairy free drink daily

or 2-3-a-day

Enjoy 2-3 servings of Benecol® spread, and yogurts daily

View Ranges

Dairy Regulation Developments

- There are several regulations related to the dairy industry introduced during the last a few years.
- Some of these regulation introduced by international bodies, others by competent authorities in various countries.

The End