



## **TECHNOLOGY BLUEPRINT FOR UHT MILK MACHINE**

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**Faculty** : **Applied Science**

**Program** : **Hons. Biomolecular Science**

**Program Code** : **AS244**

**Course** : **Technology Entrepreneurship**

**Course Code** : **ENT600**

**Semester** : **5**

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**Submission Date**  
**25 June 2018**

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## 1.0 EXECUTIVE SUMMARY

Cosmofarm Enterprise is a small medium company that facing some problem regarding goat's milk processing machine. The problem effects the time taken for each production, where it will longer the production time and it will become inefficient for the production of each product. The current pasteurize machine at the company lack of ability to produce Ultra High Temperature (UHT) milk where it causes the milk to quickly get spoiled. The different between UHT and pasteurize milk is the period of the spoiled, which UHT milk can be good up to 6 months but pasteurize milk can be spoiled just between 2 to 3 weeks.

The pasteurize machine that proposed will have an ability to produce UHT milk where this machine can boil up the milk at UHT production temperature, 135°C. The pasteurize machine is not proposed as a single idea, but the idea is to connect all the machine to produce a high quality UHT milk in term of hygiene and variety of flavor. Thus, the current machine that already able at Cosmofarm will be upgrade and few machines will be add and connected by stainless steel pipe. Then, it will work continuously, and unfortunately will lighten the workers burden.

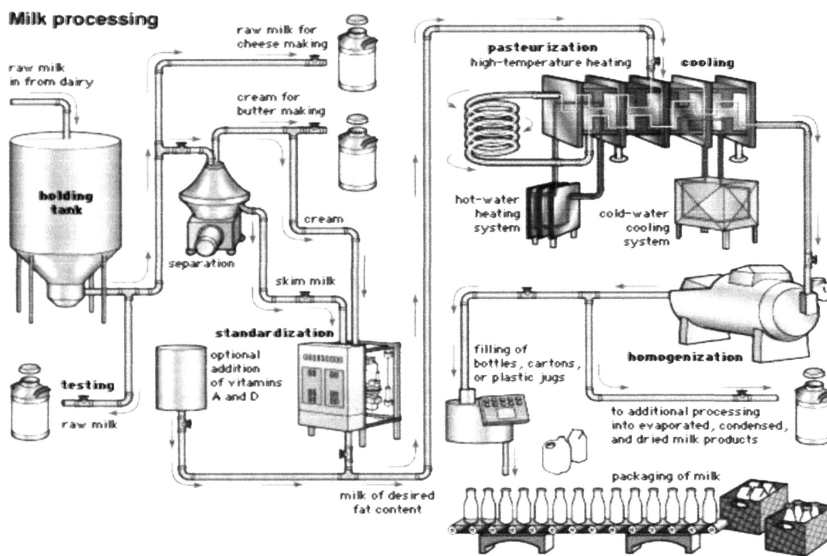
This product was only targeted to Cosmofarm as we only focused to their problem of goat's milk production. The cost that will covered up the whole upgraded product is RM 90,000.00 approximately. The cost was calculated by involved the cost of the improvement and the addition of few machines that were economically chose and also compared to other cost of machines that available in the market.

The management team included the financial team, operational team, marketing team and administration team. Each team will conduct different task that suitable as their position. All the tasks will help in developing the product that will improve goat's milk production at Cosmofarm Enterprise.

## 2.0 PRODUCT OR SERVICE DESCRIPTION

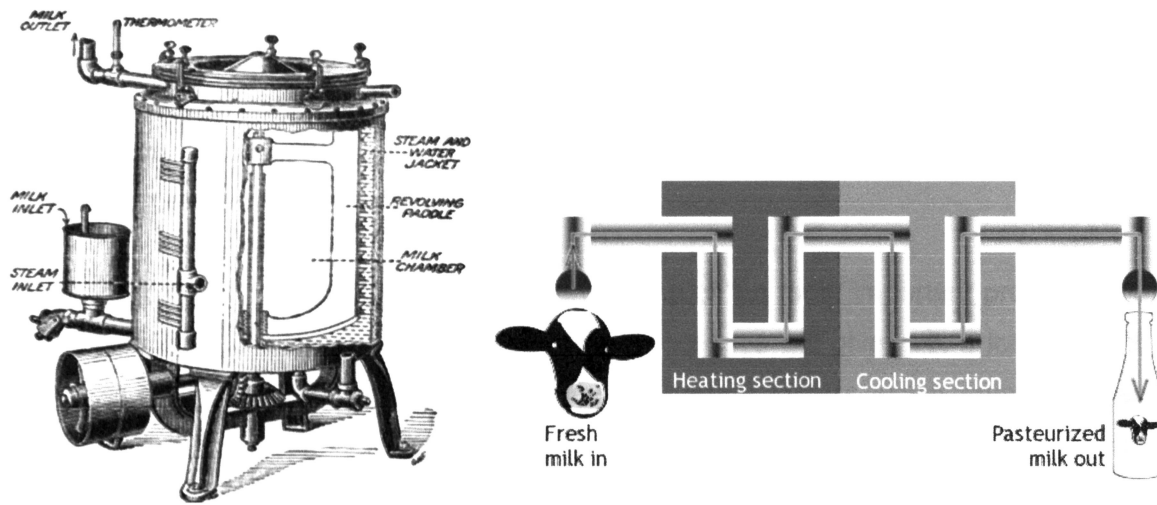
In today's milk processing industry, pasteurization is a popular technology widely applied in milk sterilization. Milk pasteurizer machine is able to eliminate those pathogenic bacteria harmful to our health, and preserve milk quality as much as possible.

Milk pasteurization machine works under the principle of tubercle bacillus destruction curve and cream separation thermal destruction curve. It can not only sterilize raw milk, but also plays a part in fermentation. Below is the milk processing machine use in dairy production where they need to process pasteurize without UHT treatment, and pasteurize also were conduct in different tank.



Generally speaking, most bagged milks have been processed by milk pasteurizer machine. Milk production process usually begins with fresh milk. It is gathered by factories and pre-processed under low-temperature, they undergo a series of pasteurization process. This description reveals the general principle of milk production, while the specific process is much more complex. Currently, milk pasteurizer machine is applied for business purpose, and pasteurization is known as the general sterilization standard internationally.

Below is the sketch diagram of our multifunctional pasteurize tank.



This new pasteurize tank can supply farmers with high-efficiency milk pasteurization tank equipped with cold water cycling system. This is the principle of our pasteurize tank where it works with more than one function such as pasteurize function together with UHT, filter and cooling of milk. This pasteurize tank is equipped with a float valve assembly which controls the liquid level nearly constant ensuring uniform heads pressure on the product leaving the tank. The overflow level must always be below the level of lowest milk passage in regenerator. Therefore, it helps to maintain a higher pressure on the pasteurized and UHT treatment.

This **pasteurizer** has electronic control panel. There we can set:

**1. Temperature.** Pasteurizer will reach and hold the temperature you need.

Extra thermometer for double check.

**2. Time.** Pasteurizer will hold necessary temperature as long as you need. When the set time is over the heater will switch off.

### **Process milk handier and not waste it!**

This **pasteurizer** has a water layer between heater and milk container. As result, the milk will not burn inside and be wasted.

### **Cool down the milk without any efforts!**

All we need is to put the inlet hose of this **pasteurizer** on the tap. Then just open the cold water and it will cool down the milk in the short time.

### **This milk pasteurizer machine has an auto sterile!**

So, it's very easy to pour out the milk from the container and clean it, as well. You don't need to lift all device.

### **Only the best for your health!**