



## **Pine Hill Dairy's new process and package**

**THE PINE HILL DAIRY has over the years kept up to date with the most modern technology both in terms of processing and packaging. Its brands have benefitted from this strategy and are leaders in their respective categories locally apart from being highly regarded both Regionally and Internationally.**

The company enjoys healthy relationships across all strata of Barbadian life including Government, customers, consumers and community organisations.

### **Pine Hill Dairy's Commitment**

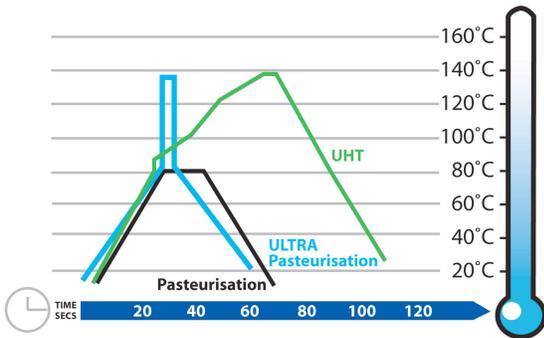
Our commitment to delivering the best quality products utilising the most technically advanced processes and packages is borne out by the recent launch of our TGA (Tetra Gemini Aseptic) Ultra Pasteurised product range. Our decision to adopt this cutting edge technology was arrived at after careful consideration of all factors (positive and negative) that such a change could bring. At the core of the decision was a requirement that the TGA product should not result in any significant change in taste compared to our previous HTST (High Temperature Short Time)

process. We are satisfied that the research carried out locally independently of PHD supports the position that the TGA product scored as high as the HTST product in this regard. We are however also mindful that taste is a very personal attribute and those subtle changes in taste can appear intensified to some individuals whilst being non-existent or minor to others. For those consumers in the former category, we appreciate your comments and continue to work with the equipment manufacturers to address your concerns.

### **Pasteurisation vs. Ultra Pasteurisation vs. UHT**

We also believe that it would help if the terms Ultra Pasteurised (UP) and TGA were fully explained; we therefore present herewith the full facts related to our new TGA product.

Prior to the introduction of the TGA product, Pine Hill produced two types of "white milk", the HTST treated fresh milk and the traditional UHT (Ultra High Temperature) treated shelf stable product. The difference between these products and the new Ultra Pasteurisation lies in the relationship between time and temperature. The graph below explains:

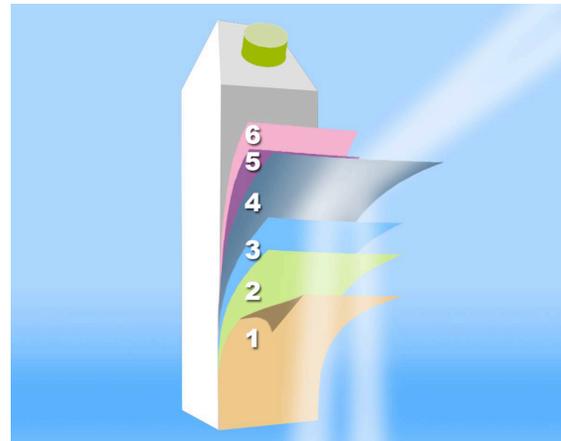


Whilst HTST treated milk is heated to a lower temperature (80°C) it gets to that temperature quicker and remains there longer (approximately 16 seconds). It is then cooled down to its recommended storage temperature; the entire process takes about 70 seconds. Traditional UHT treated milk is heated at virtually the same rate as HTST but the heating continues until a temperature of 138°C is reached; the milk is kept there for a short period and then gradually cooled. It is then cooled down to its recommended storage temperature, the entire process taking about 110 seconds. Ultra Pasteurisation raises the temperature slightly slower than HTST up to the 80°C point, upon reaching this point the temperature is spiked to 138°C for 4 seconds and then immediately flash cooled back to the 80°C. The cooling then continues until it reaches its recommended storage temperature, the entire process taking about 70 seconds.

From the above it is clear that both HTST and UP treatments expose the milk to heat for the same time period whereas the UHT process requires the milk to spend about 60% more time on heat.

## Ultra Modern Package

If we had chosen to use no other technology but Ultra Pasteurisation, then the TGA treated milk would still need to be stored, distributed and handled by consumers in the same way as HTST. What we would have achieved would have been a slightly longer shelf life. The real technological advance that gives the TGA milk the extended life and ability to store, distribute and handle at room temperature comes from the new package.



6 layers of protection protect the milk from light and oxygen, retaining calcium and vitamins, like no other packaging. It is the adoption of this technology that extends the shelf life to three months.

Our new TGA milk has a three-month shelf life and need not be refrigerated until opened, once open however it should be consumed within the timeframe noted separately on the carton. For larger consumers, there is no longer the need to freeze your additional quantities for future consumption and the new package must **NOT** be placed in a microwave. We have noted some consumers' preference for 2-litre packaging and thus reduced our ex-

factory price of the product so that 2 one-litre packages of TGA equal the price of 1 two-litre HTST at retail. We will continue to explore equipment options in relation to multi-packing (2, 4 and 6 packs) for the convenience of those larger consumers. We are also mindful of consumers at the lower end of the scale, for whom even a one-litre is large, and will shortly be launching a new 500ml TGA package.

### **Opportunities**

The adoption of this process and package places Barbados as the only country in the Eastern Caribbean with this technology and confirms our nation's status as market innovators and leaders in this field. It will afford us and our dairy partners the opportunity to supply fresh milk across the region to markets previously inaccessible because of the cost and limited shelf life of HTST product.

We hope the foregoing has been of assistance to you our valued consumers in better understanding the new TGA products and we assure you of our ongoing commitment to quality and innovation in everything we do.