# Impact of temperature on food rejection

Abstract:

Fresh cut leafy green vegetable companies that operate cold supply chains can potentially benefit from information compiled about the reasons of rejections and discarding of products. Most of the time the reason for this is temperature abuse and decay along the distribution chains. This temperature abuse is what causes decay. The vast compilation of information that is available to the cold chain operators from all the departments in the supply chain starting from procurement to the sales and customer services helps monitor and improve the success of the business. It is beneficial to the business to find the underlying cause or root cause of the temperature abuse.

This thesis attempts to determine the reasons behind temperature abuse that result in the rejection of the products. If there is a better way of transporting the products without temperature abuse happening to it. If the products distribution in specific packaging and different ways within the transportation vehicle.

This thesis will use statistical analysis to analyses the results compiled over a period of three months of rejections and their underlying cause. The findings of this thesis can help operators of transportation cold chains better distribute the product by using the correct packaging unit and distribution arrangement.

Introduction:

Technology today to monitor temperature if the supply chain environment is fairly accurate. Real-time cold chain monitoring systems are easily available and are used in different industries of perishable foods. The monitoring of these products has made the industry a little bit more clear than before, as it used to seem difficult to understand the handling of products. The information is shared by the industries to their customers. Understanding the information provided may seem difficult for the customer as it may seem like large quantities of information that is not displayed correctly. .

Specifically, this thesis seeks to study how cold chain information generated in real-time during distribution process can be interpreted and analyzed on order to reduce the temperature abuse and thus reduce rejections and improve the distribution of products.

Numerous areas are possible for investigation: however, temperature abuse due to packing unit, as this may have the greatest impact on the cause of temperature abuse. Additional work will focus on the packaging of the packing units in the transportation vehicles. The areas and spaces that the packing units are put on. The way that these units are packed in the transportation vehicle.

The fresh cut leafy greens will be the focus if this study. Raw materials processing facilities and customer distribution centers are the focus locations of the research study. Three processing facilities are studied and these facilities serve " number" of customers in total around the USA. The company serves these customers all year round and in all their locations. The products are processed, packaged, put into boxes and palletized, then

they are loaded onto the transportation vehicle and sent to the distribution centers or stores.

As the product is transported, the transportation vehicle is monitored by "" until it reaches the distribution center. The information is also recorded on paper. The information on excel files on the computer. Rejection information is monitored via a tracking system that notifies specific personnel when a product has been rejected, the location, the amount and the reason of the rejection. The product is then declared or denied if the only reason it was rejected was due to look and not quality or food safety.

This data can be compiled and help the business find the underlying cause's f these rejections and how to better avoid them.

This thesis will look at a model that identifies when a rejection will happen. This will then help the business manage the supply SC chain's performance and to take the corrective actions to prevent any product damage, financial losses ad to be able to respond to the specific events in the best way possible.