

Winter 2007 issue

COOL TIMES

The Quarterly News Letter of the Cool Chain Association



Photo Courtesy of Jelger de Vriend

Inside this issue:

- **Message from the Board**
- **Industry Activity**
- **Spotlight On – Partnership For Quality**
By Jelger de Vriend, Innovative Fresh
- **RFID: Smart sensors**
By Georg Nentwig, Project Manager, DHL Innovation Center
- **Upcoming Events**

Message from the Board

The Challenge of a new Kyoto Protocol

By Robert Arendal – Chairman of the CCA

There is not a day - these days - without reports and new facts regarding the carbon footprint being reported in the media. During the first 2 weeks of this month, the United Nations Climate Change Conference 2007 took place in Bali, Indonesia. At the time of this writing we did not yet have the full report and conclusions, yet most people believe that the best we can expect is a consensus for a work-plan of comprehensive negotiations to ensure a broader and expanded agreement for the new Kyoto 2012 Protocol; expected to be signed in Copenhagen, Denmark in end 2009.



Whatever the outcome, it shall certainly affect us all and there is no doubt it will be a costly undertaking, even much more so than how we feel about it today. Yet almost everybody, in some form or another, agrees that there is no way around a stricter CO₂ emissions policy if we want to – at best – slow down the global warming of the planet. The real challenge shall be to include ALL the countries in the world in the new Kyoto Protocol (the present agreement includes only 36 countries) as well as find “acceptable limits” that everyone can live with and at the same time meet the target of a maximum 2% degree increase of the global temperature or other limits that shall be agreed upon. But again, without the USA, China and some other countries being committed to the process, it will be difficult if not impossible to reach real improvements.

With this global scenario in mind it is imperative that we all get the figures right; that we all talk the same languages in terms of energy factor references (kWatts or Joules) and that our references are trustworthy. The media has to the best of their ability provided us with endless figures and statistics yet it still seems difficult to find simple and comparable information. Over time, we shall certainly also get those facts right.

As you will recall, Jean Pierre Emond of the University of Florida and Tony Wright from Exelsius are jointly working hard on behalf of the CCA to gather trustworthy information and then compare this in terms we all understand without been a CO₂ specialist. In their interim report, they highlight the status of development and at the same time explain how difficult it is to obtain meaningful facts. But progress is being made and early next year we should have a first draft of their report for our further evaluation. They shall provide us with different scenarios and it could very well be that we conclude that further and additional work shall be required. This report shall be one of the subjects that we shall discuss and debate at our AGM 2008.

At the same time, we are also talking to IATA in order to avoid doing a “double” work and/or overlap. While IATA shall be evaluating the CO₂ footprint in general for aviation, we shall focus on the PTSP’s (transported both by air and sea as well as compared to locally grown products). Furthermore, in order to reduce the magnitude of the project, it has been decided at this stage to end the calculation of the carbon footprint at the distribution center of a retailer. This way all the energy consumed between the distribution center and the stores will be considered identical for each scenario. The level of waste associated with each mode of transportation will be taken into account in the study.

Why do we undertake this study and what can it bring? First, we shall all learn more about our industry's CO₂ emission and each of us can then decide how he or she wants to tackle the issue. But as good citizens and neighbors, I'm sure we all want to do whatever each of us can, within each of our own means, to assist in combating global warming. Secondly, it might be better for our industry to participate openly in the forthcoming global and public debate about this issue as well as to avoid, if possible, that unreasonable limitations are imposed on our industry by governments. Third, and very important, we must be able to defend ourselves with factual CO₂ footprint facts, should our industry be incorrectly accused or quoted.

And needless to say, as we go along and more information as well as new technology becomes available, we shall keep updating our "CO₂ Emission Library" for the benefit of all concerned. And maybe some form of a reduction of carbon footprint target should be part of this year's New Year resolution.

I wish you all a Merry Christmas and Prosperous as well as a Happy New Year.

Industry Activity

Events reports

By Christian Helms

Air Cargo Americas



Recently I had the opportunity to attend the Air Cargo Americas conference in Miami, where I was asked to moderate a panel discussion with the topic "Improvements and shortcomings in service regarding the transportation of perishables".

Those of you who were among the over 300 attendees will remember that I presented the case that our market sector has up to a 30% damage quotient, this caused by inefficiencies in the supply chain and a lack of standards to guarantee an adequate management of the entire supply chain (other than our CCA's CCQI).

Yet not all is grim in this picture; airlines such as LAN Cargo, Tampa Cargo and Martinair Cargo have made significant improvements. Several airports in Latin America have invested in new infrastructure to support the transport of perishables, particularly with refrigerated warehouses and IT systems to manage the process.

Latin America and the Caribbean has also benefited from the latest wave of bilateral free trade agreements between the US and different countries in the region. The problem resides in the fact that these benefits are repeatedly being offset by the constant changes in security regulations regarding products entering the USA.

The bottom line is that there is clearly room for improvement. The future profitability of the business will not improve through higher earnings per kilogram, but through a combination of appropriate staff training and clear guidelines which will in turn result in significantly lower cargo wasted.

Spotlight on: Partnership for Quality: Revolutionizing Quality Management from Field to Shelf

By Jelger de Vriend - Innovative Fresh

From a retail point of view we are all working for the same customer; the consumer that walks into a supermarket and that buys the products we produce and distribute. We have to surprise her everyday by giving her excellent products at competitive prices. To quote Feargal Quinn of Superquinn supermarkets in Ireland; we have to crown the customer! And what better way to crown the customer than to offer superior quality. Ask yourself this question; have you ever met a consumer that demanded bad quality? I didn't think so.



Consumers reward superior quality by simply buying more. There are many examples that prove that a consistent focus on superior product quality across the cool chain leads to higher sales and profitability. Particularly, on items that are more perishable, this strategy can lead to enormous growth in sales. Focusing on quality in the retail channel is one of the best ways to add value and to drive sales.

On the cost side quality is having an equal impact. In the supermarket store alone, an average retailer will have shrinkage levels in fruit and vegetables of roughly 4-8%. With the millions of euros in sales that most retailers have it is clear how large the impact of quality is. For a retailer to optimize the cost of shrinkage is the single biggest opportunity to reduce cost in the cool chain. Actually, for all partners in the cool chain it is the single biggest opportunity to reduce integral costs.

It is very easy to see that investing in quality pays off; both in consumption and in costs. So why are we not all more committed to quality? How can we bring quality management and quality awareness to a higher level across the cool chain? If we are all focused on satisfying the consumer; how can we make quality management a key driver for consumer satisfaction?

We need to make quality management tangible!



That starts by taking our scientific understanding of how perishables behave after harvest and elevate that. Instead of developing graphs of respiration rates at different temperatures or at different oxygen levels, we need to actually translate that information into a more actionable concept: Shelf Life Loss.

A temperature graph during transport only tells you if a certain temperature has been exceeded, but even the brightest professor can not estimate the effect of a specific temperature regime on Shelf Life Loss. For that you need to have mathematical formulas that calculate

Shelf Life Loss. A number of leading companies in the industry is very advanced in developing these Shelf Life Loss models and incorporating them in RFID/Temperature technology. This will revolutionize the way we look at cool chains and perishables.

With control over Shelf Life Loss we will encounter another opportunity: to harvest products at higher maturity. This very often improves eating quality but by definition it shortens shelf life. With Shelf Life Loss under control we can start to optimize taste. The effect this can have on the perishables industry is enormous.

Collaboratively monitoring and managing Shelf Life Loss is a very powerful way to drive quality throughout the cool chain.

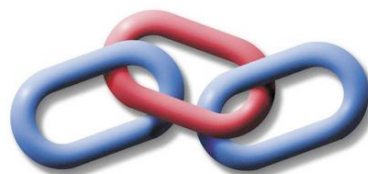
Once we control Shelf Life Loss of a specific product it is very easy to link that to shrinkage data in the retail store. Suddenly we no longer talk about scientific data such as respiration rates, but we talk Dollars and Euros. Suddenly we create a mutual and tangible responsibility and thus a shared accountability for quality in the cool chain and we can balance that with optimum eating quality.



I will even go one step further. When we are able to monitor Shelf Life Loss and we know the cost involved, we can translate this concept into product specifications. Retailers can then agree with their cool chain partners that all oranges arriving at their depot not only meet their normal quality specification, but that they also have a Remaining Shelf Life of, for instance, 5 to 8 days when stored at room temperature. That best guarantees optimum eating quality for consumers while optimizing shrinkage in the store and maximizing profit across the cool chain.

Science Fiction? Not really. Technologically we are not very far away from this world. Shelf life models are being developed and RFID/temperature integration is close to becoming commercially available. And leading retailers increasingly focus on “taste” as an important point of differentiation. More importantly we will need to all feel part of this Partnership for Quality; from field to retail shelf. We need to learn to deal with the transparency and responsibility it creates. We will need to move away from the world where temperature monitoring during transport is only done to “check” whether transport was according to specification; temperature monitoring has to serve optimization of shelf life and taste!

We should never forget; in the end we are all working for the consumer; let’s give her excellent products by revolutionizing the way we manage quality in the cool chain! In a Partnership for Quality.



Jelger de Vriend has extensive experience in the fresh produce world; from the banana farms of Latin America to the European retail shelves. He worked for Chiquita Brands, Albert Heijn and Royal Ahold covering areas from post harvest technology, agricultural production to retail merchandising. In 2007 he set up Innovative Fresh; an innovation company for the fresh produce world. You can contact him at: jdevriend@passion4produce.com

SmartSensor Temperature

Using UHF RFID Sensors to Better Monitor Temperature-Sensitive Products

By Georg Nentwig - Project Manager, DHL Innovation Center



Combining RFID with electronic sensors enables companies to offer new services, not only for the pharmaceutical industry, but for all industries shipping temperature-sensitive goods.

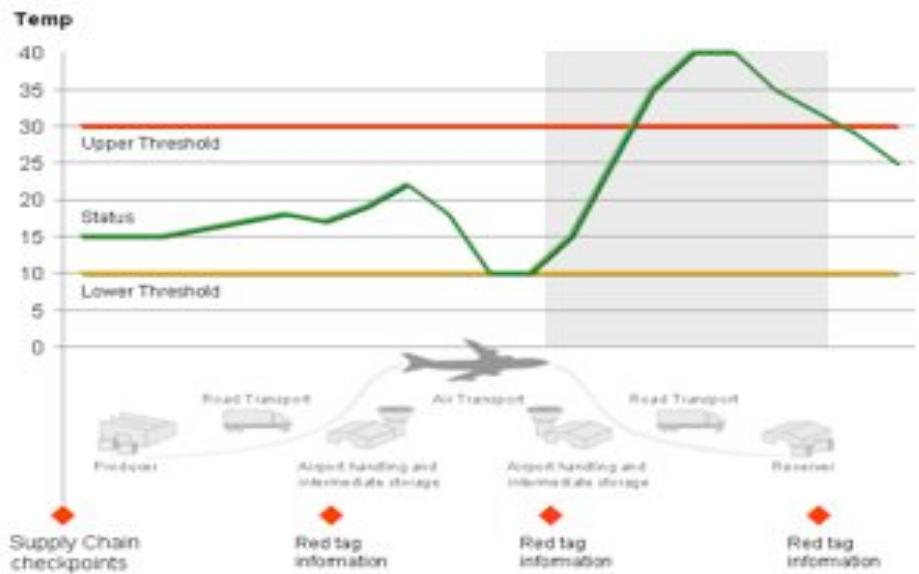
Increased demands by such legislative agencies as the FDA are driving manufacturers to view the supply chain as an important and critical part of their quality process. In a global market environment, more products are being moved internationally through multiple stages of the product supply chain.



In the pharmaceutical industry, for example, you find an increased use of liquid pharmaceuticals, biotechnological raw materials & production methods requiring controlled temperatures. Global warming is creating an increasingly less predictable climate and environment, and pin-points the challenge to ensuring product quality along the entire supply chain.



The system is designed for such temperature-sensitive products as flowers, pharmaceuticals, food, and chemicals. Especially designed to comply with requirements at the package and pallet level, the system offers new, previously unknown opportunities. It eases the shipment of temperature sensitive goods, based on scalable services.

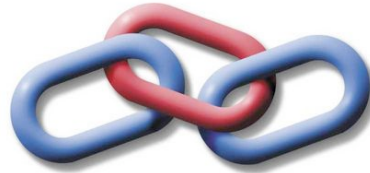


SmartSensor Temperature consists of an RFID sensor tag that acts as both a temperature sensor and RFID radio chip. It continually monitors, documents and calculates the condition of the product based on sophisticated algorithms. This data is transmitted at pick-up, inspection or delivery points, thus eliminating the need to open the package. To allow this unique functionality in a logistic environment, a UHF RFID interface is requested.

The temperature data is transmitted via GSM / WLAN / LAN and stored on a data server, allowing the automatic generation of notifications and events. A web-portal displays temperature, time, histogram data as well as alerts and freshness information.

Download functionality allows the shipment and its condition during transport to be documented. A web-based application gives instant information about the product quality and reduces quarantine times.

SmartSensor Temperature helps customers manage cool chains and also makes possible a multitude of further RFID benefits in logistics processes.



The DHL Innovation center is a unique institution which brings researchers, developers and industry experts from all over the world together. It serves as a place where ideas and knowledge can be transformed into practical innovations for global use. The Center is also a place for communication. Representatives from politics, business or society and investors can obtain information on the latest developments in the logistics sector and experience them directly. For more information on the DHL innovation center or on how to implement SmartSensor technology, please visit www.dhl-innovation.de/en/

Coming Events/Conferences with CCA Participation

23rd – 25th January 2008

Air Cargo India 2008

World Trade Center – Mumbai, India

- Robert Arendal, Chairman of the CCA will be attending this event.

28th-30th Jan 2008

7th Annual Pharma IQ Cool Chain Conference

Sheraton Towers Brussels City Center – Brussels, Belgium

- Robert Arendal, Chairman of the CCA will be attending this event.

- Steven Boyd, Marketing Director of the CCA will be attending this event.

- The CCA is a media partner for this event.

7th – 9th February 2008

Fruit Logistica 2008

Berlin Messe – Berlin, Germany

- Robert Arendal, Chairman of the CCA will be attending this event.

- Christian Helms, Secretary General of the CCA will be attending this event.

12th – 14th February 2008

The World Air Cargo Event

Bahrain Convention & Exhibition Bureau – Manama, Bahrain

- Robert Arendal, Chairman of the CCA will be attending this event.

3rd – 6th March 2008

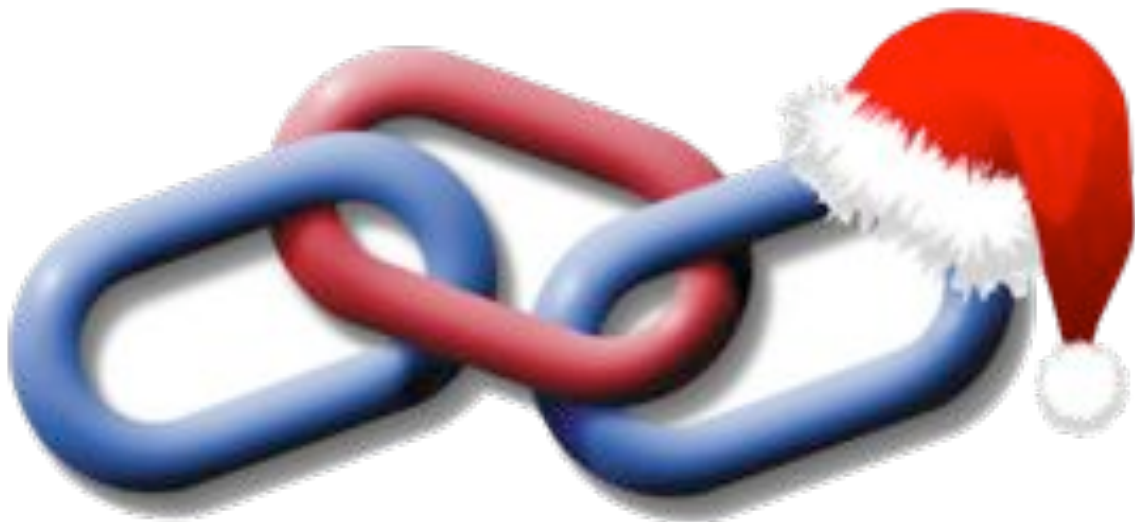
IATA World Cargo Symposium 2008

Rome Marriot Park Hotel Centre – Rome, Italy

- Robert Arendal, Chairman of the CCA will be attending this event.

- Steven Boyd, Marketing Director of the CCA will be attending this event.

*Merry Christmas and a
Happy New Year from the CCA!*



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