



## Cornelius Health and Food Bites

### New Products on the Market

Most of our new products are drink based for this edition which points to a new trend of beverage based functionality. The time of the yogurt may now have to make way for the drinks market.

Nestlé have launched a beauty drink called **Glowelle**. This product will appear in the States. The dietary supplement for beauty is pictured below. The drink was released in September and contains antioxidants, vitamins, and botanical & fruit extracts. The drink will come in juice and powder packet form. Nestlé claim the drink helps delay aging by hydrating the skin from the inside and out. Two flavors are available: raspberry jasmine and pomegranate lychee



Now on to another beauty drink. This one is called **sip** and was launched nation wide. The drink was developed by two beauty conscious women for women everywhere who describe a delicately flavoured still water packed with beauty boosting natural ingredients. sip contains 100% pure ingredients and no artificial sweeteners which provides hydration and clarity to the skin just like water. But its vitamins, antioxidant and natural botanical properties further refresh and nurture skin. The drink contains natural vitamin E, selenium and extracts of calendula, rose and sweet violet. Sip comes in four flavours which are Elderflower, Strawberry & Mint, Mango and Lemongrass & Ginger.



Minute Maid in the US has released the Enhanced range. This range is split into two flavour categories. The first is pomegranate. The pomegranate flavour range includes: Enhanced pomegranate lemonade which provides antioxidants, vitamins C & E to help support the immune system. The next is enhanced pomegranate flavoured tea. This drink blends black tea with vitamin C & E. The last in this flavour range is Enhanced pomegranate and blueberry which has 50mg per 8fl oz of added omega 3/DHA to help nourish your brain.

The second flavour range is made from orange juice. It includes a Heart wise juice with plant sterols. Minute Maid claim this is the only orange juice which is clinically proven to help reduce cholesterol. Minute Maid Active contains 750mg of glucosamine HCL to help protect healthy joints from the stress of daily activities. The third and final orange juice in this range is Minute Maid Multi-vitamin which contains 16 vitamins and minerals.

## Cornelius Can Help

We can supply a variety of materials which could help you create your own functional product. Various Green Teas and a water soluble Fiber called Sunfibre are available from Taiyo  
A wide range of plant extracts glucosamine and from Fenchem  
Watsons can custom make many vitamin and mineral premixes for beverages

## Cornelius Lab



### Trehalose acting as a moisture barrier on iced buns

#### Method:

A solution of 25% Trehalose in water was made. This was then sprayed on the un-iced bun and left to dry. The icing mix was then spread on the top of the bun and left to set.

The control used a normal iced bun.

The buns were then left for a number of days to see if any differences could be observed. As you can see the control buns icing has started to dissolve and melt away where as the buns which used a moisture barrier of Trehalose showed little change.

#### Control



#### Trehalose



In conclusion it can be seen that Trehalose can be used as an effective moisture barrier in iced buns

## Cornelius can help

Trehalose (Treha) samples are available on request along with any other information you would like to know about this product.

## Trials and Studies: Macular Pigment and Visual Performance Under Glare Conditions.

FloraGLO Lutein 5% Manufactured by Kemin and Zeaxanthin manufactured by DSM were used in this study.



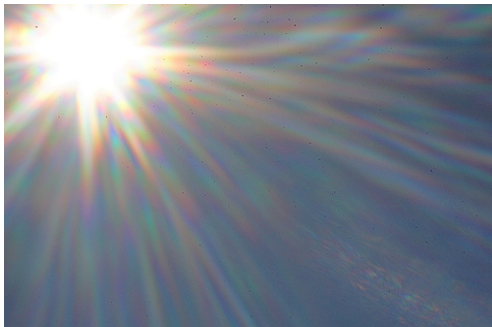
### Abstract

#### Purpose:

Many parameters of visual performance are compromised under glaring light conditions. Recent data indicates that macular pigment is strongly related to improvements in glare disability and photostress recovery based on a filtering mechanism. In this study the causality of this relation by supplementing lutein and zeaxanthin for 6 months while measuring macular pigment, glare disability, and photostress recovery were assessed.

#### Method:

Forty healthy subjects with a mean age of 23.9 participated in this study. Subjects were studied for 6 months and assessed at baseline, 1, 2, 4 and 6 months. Spatial density profiles of macular pigment were measured using heterochromatic flicker photometry. Disability glare was measured using a 1 degree-diameter circular grating surround by a broadband glare source (a xenon-white annulus). The intensity of the annulus (11 degree inner and 12 degree outer diameters) was adjusted by the subject until the grating target was no longer seen. For the photostress recovery experiment, the time required to detect a 1 degree-diameter grating stimulus after a 5-s exposure to a 2.5  $\mu\text{W}/\text{cm}^2$ , 5 degree-diameter disk was recorded. Subjects were tested under central viewing and eccentric viewing (10 degree temporal retina) conditions.



#### Results:

At the baseline time point, macular pigment optical density at 30' eccentricity ranged from 0.08 to 1.04, and was strongly correlated with improved visual performance in two glare tasks. After 6 months of lutein and Zeaxanthin supplementation, average macular pigment optical density (at 30' eccentricity) has increased from 0.41 to 0.57, and was shown to significantly reduce the deleterious effects of glare for both the visual performance tasks assessed.

#### Conclusion:

Macular pigmentation is strongly related to improvements in glare disability and photostress recovery in a manner strongly consistent with its spectral absorption and spatial profile. Four to 6 months of 12mg daily lutein and zeaxanthin supplementation significantly increase macular pigment optical density and improves visual performance in glare for most subjects.

## Cornelius Can Help

For the full version of this study please contact us. FloraGLO Lutein is available from Cornelius

## News from Cornelius

Cornelius and Kemin attended a successful Satiety Conference at Leatherhead Food International on 7th October. The Conference was well attended, indicating that Satiety is of interest to many food and nutritional companies at the moment.

We were promoting Slendesta, a potato extract which is a natural satiety ingredient for weight management.

It contains an active ingredient Proteinase Inhibitor II (PI2), a protein naturally found in white potatoes. Slendesta enhances the release of Cholecystokinin (CCK) a natural peptide within our body. Once released, CCK travels through the blood and acts on various target organs, including the stomach and brain, where it induces feelings of fullness and satisfaction. This feeling of fullness and satisfaction is known as satiety.



Slendesta helps dieters feel satisfied sooner and longer, and therefore dieters can manage their hunger, reduce their calorie intake with smaller portions, and control between meal snacking. Reducing calorie intake without hunger helps dieters meet their weight loss goals.

As a satiety ingredient, Slendesta works naturally with the body to send the signal "I'm full! Stop eating!". Slendesta is also a safe, natural, stimulant-free ingredient, so there are no adverse effects associated with its intake.

If you would like further information or samples, please contact your usual Cornelius sales representative or alternatively Laura Thompson on the below contact details.

## Watsons Glitter Kits



Cornelius has just launched an Edible Glitter kit made up of Watsons Edible glitters. The kits contain everything from small samples to certificates. The Edible Glitters are perfect for decorating cakes and confectionery. We have natural, pearlescent, metallic and EU approved colours so if you are interested in these glitters please contact us.

## Legislation - Still No Agreement over Fibre Definition

In 2008 there is still no universally accepted definition of fibre, from a legal point of view.

The Scientific Advisory Committee on Nutrition (SACN) has recently published a draft 'Statement on dietary fibre & health and the dietary fibre definition'. This diverges from the definition of dietary fibre recently adopted by the EU Commission for use in Nutrition Labelling in that it excludes prebiotics & oligosaccharides. SACN states that these substances have not been proven to have a demonstrable beneficial health effect to the host. They intend to use their 'narrow' definition as the UK position during discussions at Codex in setting a definition for fibre. Codex currently favours the 'wider' definition.

Watch this space for further developments over the definition of fibre.



## Cornelius Can help

Cornelius can offer a water soluble fibre called Sunfiber. Samples and information are available on request

## Cornelius Column: Globesity

Obesity is a major concern for the world's medical care systems. The NHS is seeing an increase in obesity related diseases and death. Whether it be heart disease or type 2 diabetes the number of sufferers is on the up. Obesity is fast becoming one of the world's leading causes of death.

America was one of the first countries to suffer from the effect of this growing trend but now the problem has spread to become a world wide problem sparking the term Globesity. As the human race eat more and decrease the amount of exercise they part take in the problem will continue to grow. It has been estimated that every fourth person on earth is now overweight.



While we start to win the fight with many infectious diseases our appetite for unhealthy foods and laziness grows leading to more health problems. In effect we are consciously replacing one problem with another.

This problem is not only linked to developed countries. There are now more people who are overweight than those that go hungry. It is very likely that underdeveloped countries are going to suffer more from this problem through lack of help and education. It is also true that many poor people cannot afford to buy the range of foods

to constitute a healthy balanced diet. After watching a recent documentary it was brought to my attention that in Africa and countries alike many people are buying unhealthy large cuts of meat to feed their families as they do not have the money to buy lean healthy meats. Also a lot of the foods which are sold from the street vendors are made from these meats so people are increasing buying and consuming more unhealthy foods due to lack of money.

Cheap and un-nutritious foods are available every where in the world, we have also been conditioned to prefer the fatty salty taste these foods provide.

Convenience foods have taken over from the home cooked meals of yester year. Many cannot cook or claim they just do not have the time. Jamie Oliver is currently trying to tackle these issues with his new show "Ministry of Food" I am sure many of us were amazed that a young girl on the show did not know what boiling water looked like.

Many of these convenience foods and take-aways lack the important nutrients we need to maintain a healthy balanced diet and instead are fully of empty calories. Functional foods and beverages go some way to help improve our health by including some of these nutrients. Omega 3, vitamins and minerals, calcium and fibre are just some of the added functionality these foods provide.



More food applications are becoming available to house these added nutrients so the more day to day foods which include these functional ingredients could improve our % RDA for the important nutrients needed. If we ate more healthily and consumed some of these functional products we would go even further to top up our RDA's.



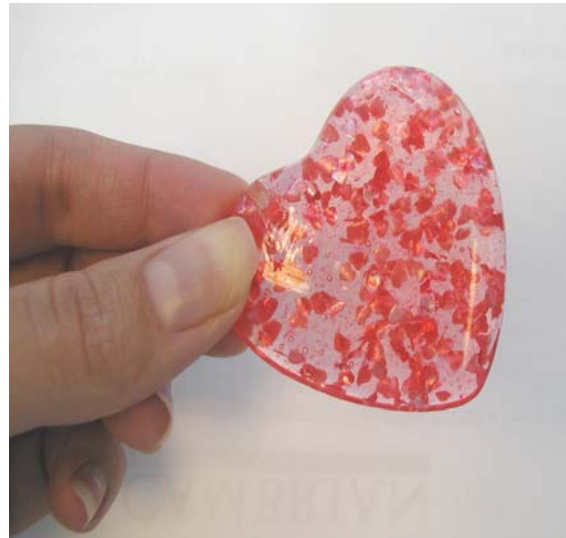
Slimming aids are now becoming more prevalent in light of the Globesity problem. These products are now made with from more natural ingredients which can be consumed along with or hours before a meal to reduce snacking.

It should be said that the food industry needs to react more quickly to this growing epidemic of Globesity. Many fast food companies are starting to change the way they entice customers, concerned that the consumer wants more healthy options. McDonalds has healthier menus and is phasing out super sizing. Pizza Hut has even gone as far as completely changing its name to Pasta Hut, introducing more healthy pasta dishes.

More education is needed to provide our younger generation with the important facts about the dangers of not maintaining a healthy diet. Teach them how to cook and encourage exercise. If these simple points are not put into practice we will face a generation of fat children growing up to develop more obesity based illnesses who die young.

## Formulation – Confectionery Hearts

Material	Weight	%
Sugar (granular)	70	59.32
Water	22g	18.65
liquid glucose 42 DE grade	26g	22.03
Metallic Gold Stars	qs	
Red Pearlescent Hearts	qs	



### Method

Add sugar water and glucose to sauce pan.  
Heat until temperature reaches 145 deg.  
Remove from heat  
Sprinkle in shapes and mix  
Pour into moulds and leave to set hard.

This newsletter is brought to you by the Cornelius Group Technical Centre.  
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Any feedback would be appreciated.