

Kennedy's Confection

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SENSIENT®

Food colours open up a whole
new world of possibilities



Nestlé seeks to reduce sugar by 40% – full details

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When the true colours take us by storm

The story of Sensient Colors Europe

by Angus Kennedy

“Dad, there’s a hurricane today, are you flying somewhere this morning?” asked one of my kids while tucking into his Rice Krispies.

“Yes I’m on my way to see a factory where they can make just about any colour in the world; and what hurricane is that?”

“Cool dad I like colours, that’s your storm,” my son said. “It’s called storm Angus!”

So off we set accompanied by Denbigh Lloyd, currently working as Sensient’s Marketing & Business Development Consultant for Europe, now seated next to me in the plane to visit this wonderful factory in Geesthacht, just outside Hamburg.

I was looking forward very much to ‘seeing the true colours’ and I was to be in good hands. Sensient is one of the leading global developers and

manufacturer of colours, flavours and fragrances. The Sensient Color Group with its European HQ in Germany, was our destination. A place we hoped we would get to on time, but the pilot announced there was a suspicious delay while taxiing.

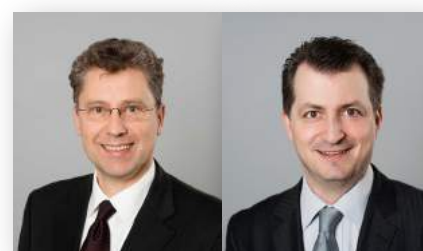
Denbigh looked around at me and I turned to him while seated on the plane and we both said simultaneously, “Storm Angus.” Which brought instant amusement to defuse our delay. At this juncture, I promised myself I would feature ‘my storm’ in the article as I must say, it was quite an unusual coincidence. Oddly, the effect of the storm was so strong that the tailwind blew our plane at a considerably increased speed direct to Hamburg.

“We think of everything here at Kennedy’s you know”, I said as we landed on time, now feeling rather proud of my personalised weather system.

I was greeted by the Sensient Color Group team: Dr Roland Beck, Managing Director, Thomas Krahl, Manager Application Service and Anu Landgrebe, their Marketing Manager. And I was keen to get a picture of the group and its size.

Part of Sensient Technologies, the Sensient Color Group division has its global headquarters in St. Louis,

Dr Roland Beck (left), and Thomas Krahl (right) – experts from the Sensient Color Group who explained to Angus the company’s full capabilities



USA and recorded revenue of \$471 million (£378m) in 2015. Some 57% of the colour group's business is in food and beverage colours, and confectionery producers I am told, are hugely important, providing a highly innovative sector to the group, where confectioners often are the leaders in driving change and innovation for the whole industry.

But surely a colour is a colour, a yellow is yellow is it not? I wish I could have been even slightly as intelligent as my hosts. "Not exactly", replies Thomas Krahl. A yellow will have different colour if it's in a garage store compared to a supermarket or in direct sunlight. And it changes completely. That is why we test colours in all lights and have specialist equipment for that specifically, which you will see later."

"Colour is reflected light", he continued. "We don't really make it Angus, it's created by light bouncing off what we create and it's received in the brain and translated to be classified as a colour in the mind. I have been here for many years and we still find things out all the time!"

"For example, if you add more colours to an assortment of gums, research reveals that you will sell more of the product. Kids will always go for bright and shiny colours too."

"Yes, that's right", adds Roland Beck, their wonderfully enthusiastic MD. "Colour is the science of art. It is very much the essential process to the attractiveness of products and if I asked you what are the two 'number one' factors considered when buying a food product, you might include taste. But actually, the two most important factors when buying a product are its shape and its colour! We can show you this later on when we have some fun in the laboratory!"

"We call it the holy room, where we create everything! We are the alchemists of colour! But colour and flavour are intrinsically linked. We taste with our eyes," he said, analysing my face for a reaction, for which an element of surprise was now snaking its way across my lips. "Come, I'll show you", and I was taken to the most wonderful room with huge windows



Christina Dahlhof, Application Specialist at Sensient Colors Europe, helps Angus Kennedy to produce some star-shaped jellies

for natural light where we went back to basics, and I duly got down the important task at hand of making my own coloured jellies and hard candies.

Thomas was keen to demonstrate another fascinating item on the agenda. We produced some rather fine orange star shaped jellies (with the help of Christina Dahlhof, Application Specialist) again who knew so much I was struggling to keep up with the doses and measurements. But she explained it all beautifully.

They selected a flavour to put into the Orange jellies, but not an Orange as one would expect; but with a blackcurrant-type flavour. The products were neatly placed into a container and placed in my hand which I was invited to take home. "Take them to your family", says Christina, "and see what flavour they think it is without saying what flavour it is".

Sure enough, when I returned home, my enthusiastic test panel of kids back home said they were orange flavour; when actually they weren't.

Okay, perhaps this is not rocket science to our Kennedy's Confection readers, but it does demonstrate what a psychological experience eating confectionery really is (bordering on the philosophical too!). Sometimes we can think too hard about texture, size and flavour without realising the major effect that the colour has on our product. And to top it all (as I saw in their amazing light machine) that the colour that we thought our product was when it left the factory is a completely different colour when it is consumed in someone's house in domestic lighting conditions for example. "There is no true colour", adds Thomas.

Surely I should have known this in my Editor's position, I was thinking. We taste with our eyes, I thought as I held a vibrantly coloured red star-shaped jelly up to the light. Whether I liked it or not, I was waking up to true colour or rather, unlearning much of what I was taught about colour at school!

The same thing happens when we read, he announces. The colour is dominant. Thomas shows me text to read where I have to read words that are coloured like this: **Orange**, **Blue** and **Yellow** and so forth and as I read this long list to my audience, I called the words by their colour and not by reading the word. "People think things are what they are





just because of the colour”, added Thomas enthusiastically. “And because of that, you can change the flavour of a product in someone’s mind just because of the colour you give it.”

“So how did this all start”, I asked Roland. “Well”, he added, “in the 1920s, synthetic colours were first introduced, then the 1970s saw the first production of natural colours and – quite recently and especially after the Southampton report – there is a huge demand for colouring foods. So we are involved in the primary extraction and we have another plant in Italy, for example which we would love you to see next time around Angus, producing grape skin extracts and other fruit and vegetable concentrates. Here in Germany we have truly, a state-of-the-art production site, with continuous investment.”

Sensient Food Colors Europe currently has very much on its agenda ‘Natural Colours’, and explained that a key international consumer trend indicates a global shift towards more natural and clean label colours.

However, he added. “There is a lack of trust in the food supply chain: 75 percent of US consumers are either ‘very’ or ‘somewhat concerned’ with food safety, while the enormity of the food industry has 77 percent of UK consumers concerned. With an ‘all natural’ banana consisting of ‘E’ numbers and other ingredients that consumers may feel uncomfortable with, it’s understandable as to why consumers are seeking natural colours as an ingredient wherever possible.”

Findings, I am informed, also reveal that when it comes to New Product Development, there is a split between natural and artificial colours. In 2011,

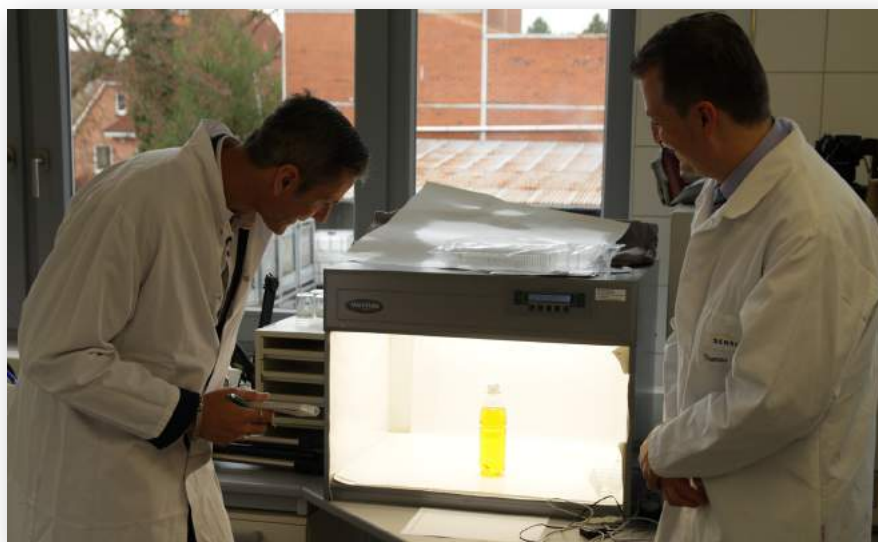
the global use of colours in food and drink launches

saw 65% using natural colours, with 35% featuring artificial colours. However, the scales have tipped in the favour of natural colours each and every year since, and in 2015, 72% featured natural colours (with 28% now featuring artificial colours).

In Europe, however, natural colours dominate – and the natural / artificial split for NPD on this continent in 2015 was 89% natural and 11% artificial. A significant difference and a sign that Europe is leading the way in the transition to natural colours.

In the top ten categories using artificial colours globally, sugar and gum confectionery emerged as number one, followed by bakery, snacks, desserts and ice cream; with chocolate confectionery in sixth place. Sensient has a range of over 1,000 products and add 200 new ones a year. The all-natural colour trend is gaining pace rapidly, and the idea of more regional sourcing is always on the agenda around boardrooms and plants alike.

Angus is taken on a journey through Sensient’s range of vivid colours – many of which can offer added health credentials



So much is current growth that they have completed a brand new facility that was five times bigger than the one I was in for this visit.

This company loves colour so much, they even take their entire staff on rather tempting painting weekends to help them learn about the use of colours, art and influence of its magic. I wanted to be on the next trip!

Roland believes that we will see many more colouring food options coming into the market, as it’s clear that colour is one of the key drivers of purchasing in the supermarket. He also says that many customers are saying that some standard fruit colours and flavours are boring and welcomes the revolution! “Naturalness is everywhere,” he says.

Naturalness helps to address consumers’ food safety concerns, and consumers want more natural, with less processed foods and made with familiar ingredients. The focus is on clean labels, greater transparency and more artisanal values.

Sensient believes that colour can be used to create a perception of health, and that artificial colours will continue to be phased out as the focus on natural colours sharpens. The shift to natural colours will continue as consumer demand for natural ingredients rises.

Colouring, in particular, can assist with three key areas consumers consider

The Colour of Innovation



Each innovation differs.

With a vibrant and eye catching shade, they truly stand out. Sensient's food colours enhance the unique character of your food and beverage products and add value to your brand. With Cardea™, our outstanding innovation of exclusively natural colouring foods,

Sensient unlocks nature's potential supporting your specific needs. We offer the leading global natural colours and colouring foods portfolio, process and application expertise, regulatory insight and local presence – let's create together your colouring solution.

Contact us to make your ideas a colourful success:

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With a focus on clean labels, greater transparency and artisanal values, Sensient's colours can assist confectioners in many different ways

when purchasing confectionery products – product identification, judgment of quality, and flavour identification. Therefore, colour becomes a powerful tool for manufacturers to make their products unique, Thomas informed me, citing the red Coca-Cola can and blue Pepsi can as examples.

As we drew to a close of my

fascinating day with my wonderful hosts, and walked to their original building that was there over 100 years ago (now offices), I came away wondering what would have happened if we didn't have food colours! A true colour lies within true knowledge of the colour and a deep understanding of this highly subjective subject

and one that now will fascinate me every time I look at my next grade of chocolate colour or hard candy.

Above all, these are really wonderful people to work with; autonomous, charismatic and fun to be with and their US owners have assisted in enabling them to maintain their characters and vibrant personalities which I would say, yes, is reflected and radiates from their spectacular range of colours.

I was rather sad to leave my hosts for many reasons; come on, who doesn't want to play with colours all day! I was handed a box of samples by Anu that I had made in the Holy room (well Christina did really) and walked away with Denbigh feeling like a new alchemist on the block, ready to colour the world!

Oh before I go!

Even when you visit during a nasty grey incessant 'Storm Angus', ha! There's nothing like a bit of colour to pave the grey.

5 Things we also like about Sensient Colors Europe



One of the key advantages of Sensient is its Application Service Centres. Sensient transfers its customer's individual needs into colouring solutions by: in-house stability testing, application systems, process support, scale up assistance, and customer training and seminars.



Their Research & Development Laboratory is able to develop highly innovative formulated colour systems, analyse and select high quality sources of raw material, create market-driven product performances, design products for a broad range of applications, and customise unique shade solutions.



The company uses aqueous and solvent extraction processes, possibly the most innovative emulsion technology

around, with high performance dispersion systems, and powder processing and blending technology. It also has involvement in product safety and environmental protection programmes, and are FSSC, HACCP and ISO certified. Other credentials include them being GMO-free, Kosher and Halal.



Offering stable and attractive colour solutions, with a number of palm free options available, they offer, for example, new bright yellow and orange shades, suitable for an extensive range of sweet and savoury applications. They are effective in various confectionery products, water ices, ice creams, desserts, dairy and bakery products. These new colouring foods now make it possible to

achieve vibrant yellow and orange shades without the need for colour additives. Various sweet flavours can be matched, ranging from lemon, banana, pineapple, and melon through to apricot, peach, mandarin, orange, papaya and tropical fruits. Moreover, these new colouring food products complete the range of bright strawberry red shades when used in combination with red colouring food preparations like Black Carrot Juice Concentrate or Beetroot Juice.



We loved the local landscape and architecture – small town, great little lake to take the kids, beautiful woods, shops and amazing local hotel and as I always find, lovely warm-hearted German people!

If you would like an interview/article like this send your idea to editor@kennedys.co.uk