



## **Sensient's palm-free range of colours offers much more than a "free from" alternative**

GEESTHACHT, GERMANY – April 3, 2014 –

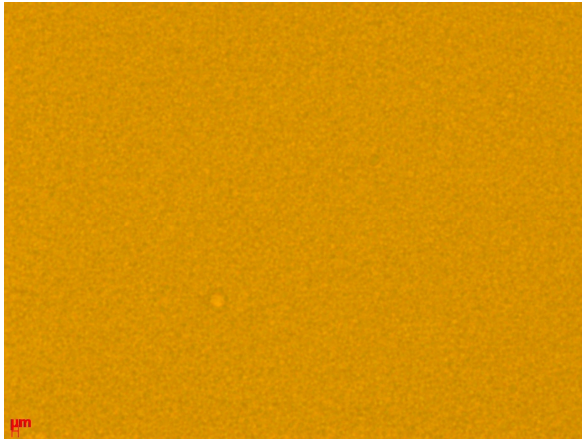
Concerns about the sustainability of palm oil plantations have caused many companies within the food and beverage industry to search for viable alternatives to use in their product formulations. In order to address this challenge, Sensient Food Colors Europe has successfully developed a range of palm-free products which take full advantage of the natural properties of palm-free ingredients used for natural colour formulations.

The core objective for this new product range is to maintain or improve the performance of natural colours over the existing palm-derived ranges. The major challenge is to replace all palm-derived ingredients used for different formulations: from emulsions to dispersions to powders. No other colour company has attempted to introduce this broad range of palm-free colour alternatives.

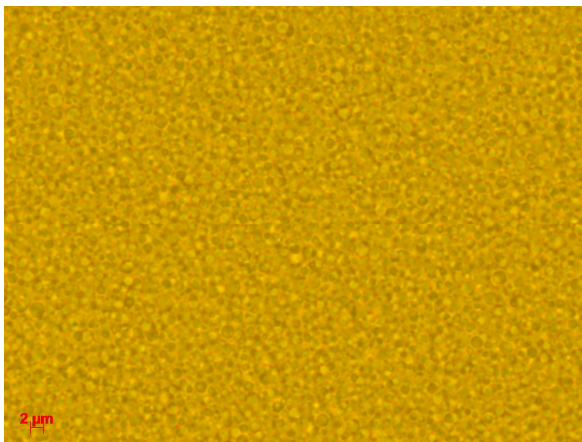
Today, one third of globally consumed plant oil is derived from palm fruit, which has historically been regarded as widely available and cost effective. The oil is characterized by its excellent heat and oxidation stability and low viscosity, making it very flexible in applications.

To create the new palm-free product range, Sensient focuses on natural formulation systems using a novel selection of palm-free components chosen through a dedicated research program. Sensient's product range has eliminated all ingredients of palm origin, including the carotenes, as well as other formulation ingredients, through more sophisticated process technology or through the substitution of palm-free components which offer improved efficiency.

As a result, Sensient has now established a palm-free and dynamic product range with superior quality in several applications. This is clearly demonstrated by natural colour emulsions for beverages, one of the most demanding application areas. In terms of droplet size and distribution, the microscopic pictures show the enhanced emulsion quality of Sensient's new palm-free Natural Carotene in comparison to a standard carotene emulsion.

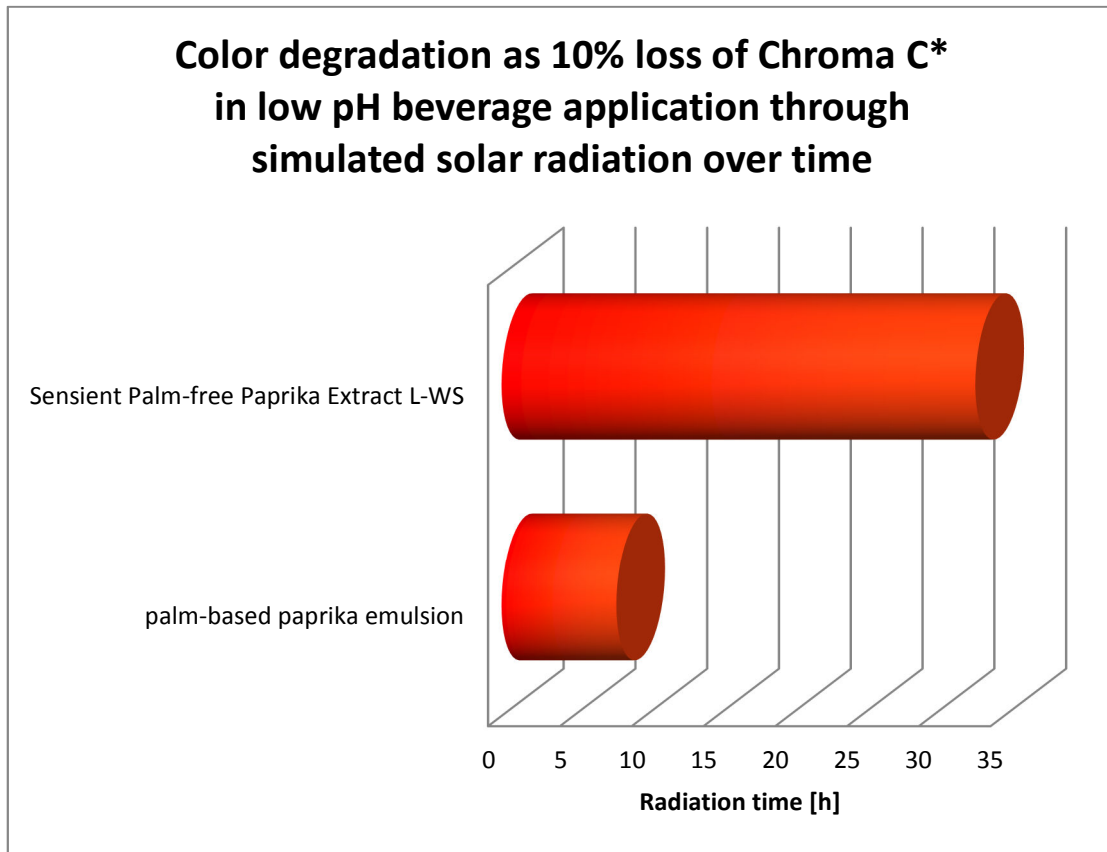


Sensient Palm-free Natural Carotene



Standard Carotene

Sensient's palm-free products offer outstanding protection against oxidation, creating a high level of light stability. In a solar radiation test, the colour stability of Sensient's new palm-free Paprika Extract emulsion performs more than 5 times better than a standard palm-based paprika emulsion. While the palm-free version withstands severe irradiation for the entire test duration (loss in chroma C\* of 10%), the palm-based standard product turns from orange to yellow (loss in chroma C\* of over 50%).



Another key advantage of the new Sensient palm-free formulations is the improved performance in relation to bottle neck ringing and package staining, which is a serious issue in PET filled beverages. Here tests prove that with the dedicated palm-free and transparent product range for beverages, no staining of the PET occurs during the entire shelf life period of the final product.



**Palm-based carotene**

**Sensient palm-free transparent carotene**

The new Sensient products are taste neutral and extremely palatable, unlike palm oil based products. There is no oily, fatty aftertaste or any unpleasant oily note, which is critically important with sweet and fruity flavoured end products. The palm-free Sensient range also includes dedicated products for confectionery, dairy, ice-cream, savoury and a wide selection of other uses in food.



The use of Sensient's alternatives to replace palm-based ingredients in natural colour formulations will not only maintain the quality of the end-product, but also improve its performance. This is true even in the most demanding natural color applications such as beverages. Stability studies have also shown that this new range meets and often exceeds present industry standards. With these products Sensient offers a wide range of unique products meeting future customer demand for effective palm-free products.

### **About Sensient Food Colors**

Sensient Colors brings life to products, adding colour and visual enjoyment to food and beverage applications worldwide. Offering unparalleled colour innovation and proprietary technologies, Sensient Food Colors applies industry defining colour expertise, enhancing brand value through premium sensory appeal and performance.



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Sensient Food Colors Europe is a unit of Sensient Technologies Corporation, a leading global manufacturer and marketer of colours, flavours and fragrances. Sensient employs advanced technologies at facilities around the world to develop speciality food and beverage systems, cosmetic and pharmaceutical systems, inkjet and speciality inks and colours, and other speciality and fine chemicals. The company's customers include major international manufacturers representing many of the world's best-known brands.

<http://www.sensient-fce.com>