

GIVAUDAN EXPANDS TASTESOLUTIONS<sup>™</sup> SWEETNESS PROGRAMME TO HELP FOOD AND BEVERAGE MANUFACTURERS ACHIEVE SUGAR REDUCTION GOALS

Dübendorf, 11 April 2011 – Givaudan is expanding its TasteSolutions<sup>™</sup> Health and Wellness programme by increasing investment and resources in taste technology to address food manufacturers' sweetness challenges. The company continues to grow its discovery programme to develop new natural ingredients from botanical sources and biotechnology. Givaudan also has a pipeline of artificial molecules and USA GRAS\* regulatory approval for a new sweetness modifier to add to its existing flavour ingredients palette to help create sweetness and mouthfeel solutions for sugar reduction.

These initiatives are in response to increasing consumer demand for food and beverage products which are perceived as healthier – yet do not compromise on taste. Over the past year, there has been an additional challenge as sugar prices have increased significantly and, in some countries, sugar itself is in short supply.

"There is already a trend towards reduced-sugar products and the spectacular rise in sugar prices over the last year is accelerating this pattern," says Mike Size, Global Head of Beverages. "We can help customers mitigate rising raw material prices and obtain the great taste and mouthfeel they expect in foods and beverages by enhancing sweetness in low-sugar applications through novel ingredients and building-blocks to bring the taste profile as close as possible to full-sugar."

Consumers desire the sweetness profile of sugar even in low- and zero-calorie products – often preferring this to the taste of high intensity sweeteners. Investment in sweetness modulation technology has enabled Givaudan to develop its TasteSolutions<sup>™</sup> programme, providing sensoriallybalanced profiles for both naturally and artificially sweetened low- and zero-calorie products, by enhancing their sweetness characteristics while masking undesirable notes and improving the flavour to gain consumer acceptance in the finished application. For consumers who prefer natural ingredients, the challenge of masking the bitter off-notes of Stevia extract Reb-A can be overcome using similar methods. In addition, Givaudan has developed an in-depth sensory understanding of high-intensity sweeteners designed to replace sugar and sugar-based solutions. Internationally, the company manages panels of trained tasters sensitive to high-intensity sweeteners including Reb-A, sucralose and all major sweeteners to help capture consumer perceptions. The sensory panels also help Givaudan to validate the efficacy of sweetness ingredients and flavours.

Outputs from these panels have helped Givaudan to develop its own language covering aroma, taste and mouthfeel: Sense It<sup>™</sup> Sweet describes the different tastes imparted by sweeteners in food and beverage applications and helps to guide Givaudan's flavourists in their creation of new sweetness solutions. With this sensory knowledge, Givaudan has mapped out a proprietary 'Sweet curve' to visually demonstrate the changes in perceptions of sweetness over time.

"Achieving desirable levels of sweetness is not simply about replacing or reducing sugar," says Minerva Calatayud, Global Product Manager, Sweet Goods and Dairy. "Customers can partner with Givaudan's flavour creation team to optimise the flavour and taste profile in sugar-reduced products, enhancing sweet taste perception and building desirable, sugar-like mouthfeel while masking undesirable off-notes. Givaudan's applications experts then undertake testing to ensure solutions can withstand customers' manufacturing processes and shelf-stability of the final product."

Together with its flavour creation, application technology and sensory science capabilities,

Givaudan is creating complete sweetness solutions for sugar-reduced applications for beverages, milk drinks, yoghurts, ice creams, cereals and baked goods.

\*GRAS: Generally Recognized As Safe

## About Givaudan Flavours

Givaudan is a trusted partner to the world's leading food and beverage companies, combining its global expertise in sensory understanding and analysis and consumer-led innovation in support of unique product applications and new market opportunities. From concept to store shelves and quick serve restaurants, Givaudan works with food and beverage manufacturers to develop flavours and tastes for market leading products across five continents.

For further information, please contact:

Shelby Rohwedder, Coburn Communications T +1 212 536 9836 E shelbyrohwedder@coburnww.com

Kate Clough, Razor College Hill T +44 1869 353 807 E kate.clough@collegehill.com