



August 27, 2013

Kendall Powell, CEO
General Mills, Häagen-Dazs
500 Washington Avenue South, Suite 2040
Minneapolis, MN 55415

Dear Mr. Powell,

On behalf of the Campaign for Natural Vanilla, Friends of the Earth and a coalition of environmental, health, and justice organizations would like to invite Häagen-Dazs to show its commitment to quality natural vanilla, small-scale natural vanilla farmers and consumer right to know by joining leading companies in their commitment to not purchase vanilla flavoring produced using synthetic biology (synbio vanilla) when it comes to market in 2014.

FOE is part of a coalition of 166 environmental, health, and justice organizations, including ETC Group, Center for Food Safety, and Movement Generation concerned about synthetic biology products. The coalition published the *Principles for the Oversight of Synthetic Biology* which outlines the need to safeguard public health and the environment from the novel risks of synthetic biology and to ensure open, meaningful and full public participation in decisions regarding its uses.

Consumers across the world enjoy vanilla ice cream as a delightful treat. Häagen-Dazs lists natural vanilla extract or flavor as an ingredient in its ice cream products and through its pilot sustainable vanilla sourcing program has shown its commitment to using “only the purest ingredients”. Häagen-Dazs customers trust they are getting the highest quality of *natural* vanilla ice cream. Consumers are not looking for synthetic biology vanillin, produced with a new experimental genetic technology that is raising significant controversy. Synthetic biology is an extreme version of genetic engineering, to which consumer opposition is high and growing fast in the food sector. Synthetic biology vanillin is about to be introduced into the marketplace as the first high profile synthetic biology ingredient to be used in food.

Synthetic biology vanillin is made in labs using synthetic DNA not found in nature to reprogram yeastⁱ. Despite this fact, a synthetic biology company, Evolva[®], in collaboration with International Flavors and Fragrances, are about to masquerade their synthetic biology vanillin on the market as a “natural” and “sustainable”^{ii,iii} product. However, the tremendous growth in the natural and organic food sector in recent years demonstrates consumers want what your products promise: quality *natural* vanilla. As with other genetically engineered products, this should be labeled as either being genetically engineered or as a product of “synthetic biology”, but never as “natural”. As consumers have done with GMOs, they

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will likely reject products which contain synthetic biology ingredients falsely labeled as “natural”, and may consider this a form of “greenwashing”.

This new product is neither “natural”, nor “sustainable”, and is virtually unregulated. The entire synthetic biology process relies on industry “self regulation,” with almost no independent oversight.^{iv}

Synthetic biology vanillin poses several human health, environmental and economic concerns for consumers, food companies and other stakeholders. Synthetic Biology vanillin could speed rainforest destruction and could harm sustainable farmers and poor communities across the world. For a detailed explanation of these concerns, please refer to the attached list and factsheet.

Friends of the Earth and our allies believe that Häagen-Dazs, which has a loyal base of customers that trust they are purchasing *natural* ice cream, should maintain that commitment to quality natural vanilla flavoring and commit to not use synthetic biology vanillin.

We feel it is imperative that synthetic organisms and their synthetic byproducts should not be commercialized or released until proper international regulations and environmental and human health safety evaluations are in place. Products of synthetic biology should be labeled with full disclosure to the public about the synthetic organism and its safety status.^v

In light of our numerous concerns about this new ingredient, we are asking Häagen-Dazs to commit to not use synthetic biology vanillin in its ice cream products. We will list all companies that make public their policy to not purchase or use synthetic biology vanillin should it come to market as a food additive in 2014. These companies will be highlighted on our websites, in social media, and in the press, so that consumers can see which companies’ ice cream contains unnatural vanilla produced through synthetic biology, and which companies have rejected this risky ingredient. We will also publish a list of companies that have not made this commitment and whose products may contain synthetic biology derived vanilla flavoring in the near future to ensure consumers have access to this important information.

Responsible companies are committing to not use synthetic biology vanillin and we believe consumers will reward companies that are clear in their commitment to not use this synthetic, genetically engineered product.

Please contact Dana Perls, Food and Technology Campaigner at Friends of the Earth at dperls@foe.org or 510-978-4425 by September 11, 2013 so that we may discuss how Häagen-Dazs can show its leadership in corporate sustainability and responsibility by committing to not use synthetic biology vanillin.

Thank you for your attention to this important issue. We look forward to highlighting your Häagen-Dazs’s leadership protecting our right to make informed decisions about what we’re feeding our families.

Sincerely,

Dana Perls
Friends of the Earth

Ronnie Cummins
Organic Consumers Association

Dave Murphy
Food Democracy Now!

Wenonah Hauter
Food and Water Watch

Jim Thomas
ETC Group

Gopal Dayaneni
Movement Generation

Jaydee Hanson
Center for Food Safety

Environmental, Health, and Social Justice Concerns:

- **Products with synthetic biology vanillin may be erroneously labeled as “natural”**, misleading consumers who are seeking truly natural products. Even though the yeast’s DNA has been synthesized by a computer and would not be found in nature, marketers claim synthetic biology vanilla flavoring is the result of a “natural” process of fermentation, and would meet the requirements of “natural status” under US and EU labeling regulations^{vi,vii}. These companies are also marketing this ingredient’s production as “sustainable”. **Virtually unregulated:** There is currently no governmental body regulating or assessing the potential impacts that synthetically engineered ingredients or their production may have. In 2012, President Obama’s Commission for the Study of Bioethical Issues agreed that it was sufficient for the industry to self-regulate. Regulatory agencies such as the FDA and EPA will use “prudent vigilance” to assess any problems that may arise. In response to the lack of regulatory oversight of synthetic biology, 116 organizations from around the world have endorsed the Principles for the Oversight of Synthetic Biology, a global declaration from civil society which outlines principles recommended to protect public health and our environment from the risks posed by synthetic biology.^{viii}
- **Synthetic Biology vanillin sets a precedent** for replacing natural ingredients with ones produced using this “extreme genetic engineering,” which are untested, unregulated, and labeled falsely as “natural”.
- **Synthetic Biology vanillin production is not sustainable and could speed rainforest destruction.**
 - **The feedstocks required to produce this product could present risks to tropical rainforests, dwindling water supplies, and exploit workers.** While natural vanilla beans grow in intact tropical ecosystems, the demand for sugar needed to feed the yeast engineered for synthetic biology could result in clear cutting tropical forests in Latin America, Africa and South East Asia for more sugar cane production. These problems will be exacerbated as this and other synthetic biology applications using yeast scale up to meet increasing demand and replace current production of natural and artificial flavors and fragrances, including vanilla.^{ix,x,xi}
 - **Scientists say it is unlikely that the synthetic organisms can be contained** and if they escape into the environment – either as an experiment or unintentionally, it could lead to extreme environmental contamination of similar organisms such as yeasts^{xii}. Once in the environment, it will be impossible to remove these synthetically engineered organisms.
- **Synthetic Biology Vanillin could harm sustainable farmers and poor communities across the world:**
 - Natural vanilla farmers protect intact rainforests by growing the high valued vanilla orchids which depend on these tropical forests.
 - More than 200,000 farmers from across Madagascar, islands in the Southwest Indian Ocean, Mexico, and Central Africa depend on sustainable vanilla production for their livelihoods. If synthetic biology vanillin, marketed and labeled as “natural,” displaces truly natural vanilla, thousands of vanilla farming communities could be economically decimated.

ⁱ Griffith F. The significance of pneumococcal types. *J. Hygiene.* (1928);27:113–159. Hansen, EH, B. L. Møller, G. R. Kock, C. M. Büchner, C. Kristensen, O. R. Jensen, F. T. Okkels, C.E. Olsen, M. S. Motawia, and J. Hansen. 2009. De novo biosynthesis of Vanillin in Fission yeast (*Schizosaccharomyces pombe*) and Baker's yeast (*Saccharomyces cerevisiae*). *Applied and Environmental Microbiology* 75: 2765-2774.

ⁱⁱ Gorton, L. (2012, February 1). Natural artificial vanillin, at last. Retrieved July 11, 2013, from Baking Business website:<http://www.bakingbusiness.com/Features/Formulations/2012/2/Natural%20artificial%20vanillin%20at%20Olast.aspx?cck=1>

ⁱⁱⁱ Vanilla. (2013). Retrieved June 19, 2013, from Evolva website: <http://www.evolva.com/products/vanilla>

^{iv} Groups criticize Presidential Commission's recommendations on synthetic biology. (2012). Friends of the Earth US. <http://www.foe.org/news/blog/2010-12-groups-criticize-presidential-commissions-recommenda#sthash.I2NxcChC.dpuf>

^v The Principles for the Oversight of Synthetic Biology. (March 2012) Friends of the Earth. Available at <http://www.foe.org/news/archives/2012-03-global-coalition-calls-oversight-synthetic-biology>

^{vi} Gorton, L. (2012, February 1). Natural artificial vanillin, at last. Retrieved July 11, 2013, from Baking Business website:<http://www.bakingbusiness.com/Features/Formulations/2012/2/Natural%20artificial%20vanillin%20at%20Olast.aspx?cck=1>

^{vii} Vanilla. (2013). Retrieved June 19, 2013, from Evolva website: <http://www.evolva.com/products/vanilla>

^{viii} Global coalition calls for oversight of synthetic biology. (2012) Friends of the Earth.

<http://www.foe.org/news/blog/2012-03-global-coalition-calls-oversight-synthetic-biology#sthash.94Q96VZj.dpuf>

^{ix} International Civil Society Working Group on Synthetic Biology, ETC Group, Econexus, Friends of the Earth USA, International Center for Technology Assessment, & Sustainability Council of New Zealand. (2011).

^x ETC Group. 2010. *The New Biomasters: Synthetic Biology and The Next Assault on Biodiversity and Livelihoods.* www.etcgroup.org

^{xi} Brady, B., 2011. Testimony before The United States Senate Committee on Energy and Natural Resources Hearing to Review Department of Energy Biofuel Programs and Biofuel Infrastructure Issues. April 7, 2011. http://energy.senate.gov/public/_files/BillBradyTestimonyMascomaCorp.pdf

^{xii} Presidential Commission for the Study of Bioethical Issues. 2010. *New Directions: The Ethics of Synthetic Biology and Emerging Technologies*, December 2010, Washington, D.C.