Ford and Heinz explore potential of repurposed tomato parts

June 11 2014, by Nancy Owano

The Tomato, (Lycopersicon lycopersicum) flowering, associated with a young, developing fruit. Credit: Earth100/Wikipedia

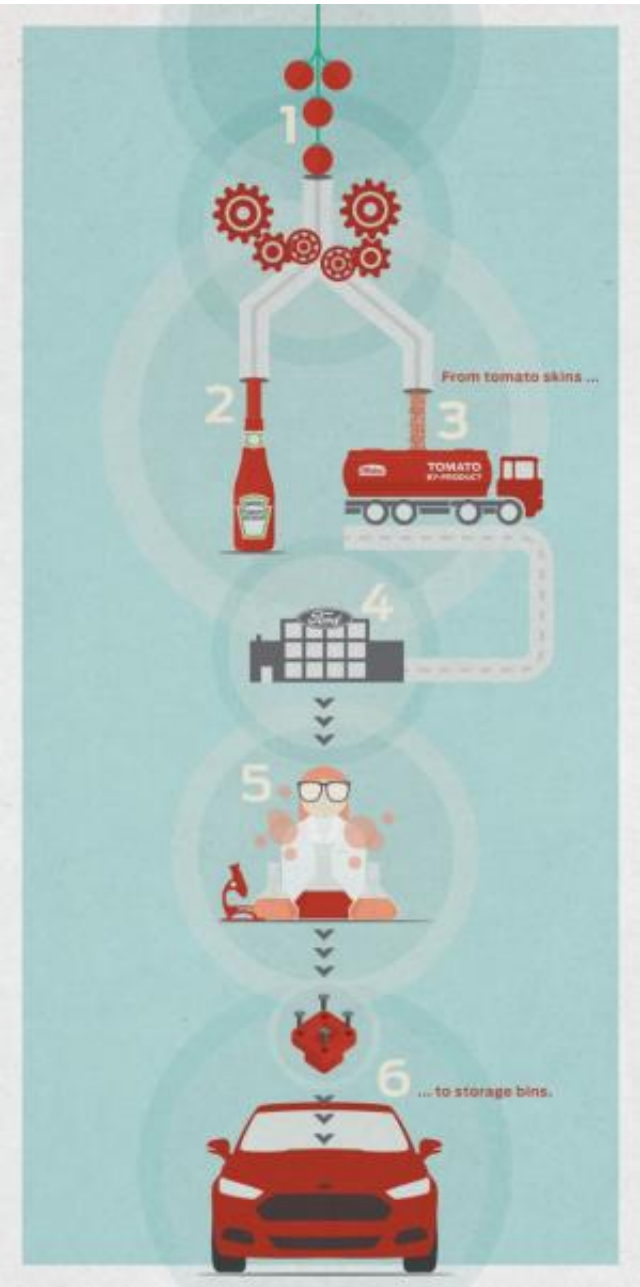
Heinz and Ford have become partners in research for turning tomato parts into plant-based plastics. Ford on Tuesday issued a statement about

the collaboration, saying "You say tomato: We say tom-auto." The food and auto collaboration is for the purpose of exploring the feasibility of tomato parts for a more sustainable bioplastic material for vehicles. "Success in developing a new more sustainable composite could reduce the use of petrochemicals in manufacturing and reduce the impact of vehicles on the environment," according to Ford. At Heinz, researchers were interested in finding ways to recycle and repurpose peels, stems and seeds from over two million tons of tomatoes used each year to produce Heinz Ketchup. A plant-based plastic using the parts may prove to have potential in many "green" areas, including a reduction in food waste, lower energy footprint at Ford, and reduced vehicle weight along with fuel economy. The material will also be recyclable.

The project is still in the feasibility stage, as researchers hope to assess the potential of the process in light of the goal of reducing the use of petroleum-based plastics, reducing energy consumption, and diverting food waste. Vidhu Nagpal, associate director, packaging R&D for Heinz, said, "Although we are in the very early stages of research, and many questions remain, we are excited about the possibilities this could produce for both Heinz and Ford, and the advancement of sustainable 100% plant-based plastics."

Specifically, dried tomato skins could become the wiring brackets in a Ford vehicle or the storage bin a Ford customer uses to hold coins and other small objects.

In 2012, both Ford and Heinz joined The Coca-Cola Company, NIKE, and Procter & Gamble in the formation of the Plant PET Technology Collaborative (PTC), for accelerating development and use of plant-based PET materials and fiber in their products. PET, which stands for polyethylene terephthalate, is a lightweight plastic used in products and materials including plastic bottles, apparel, footwear, automotive fabric and carpets.



Credit: Ford

In Tuesday's announcement, Ford said, "With cellulose fiber-reinforced console components and rice hull-filled electrical cowl brackets introduced in the last year, Ford's bio-based portfolio now includes eight

materials in production. Other examples are coconut-based composite materials, recycled cotton material for carpeting and seat fabrics, and soy foam seat cushions and head restraints."

As for the current effort with Heinz, Ellen Lee, plastics research technical specialist for Ford, said, "We are exploring whether this food processing byproduct makes sense for an automotive application." She said the goal was "to develop a strong, lightweight material that meets our vehicle requirements, while at the same time reducing our overall environmental impact."

More information: * media.ford.com/content/fordmed … ls-for-vehicles.html
* media.ford.com/content/fordmed … 2012/06/05/coca-cola—ford—heinz—nike—and-procter—-gamble-form-collabor.html

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