A car cocktail: Ford, tequila-maker mix for auto parts

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Researchers are studying ways to use components of the agave plant in the manufacture of a bioplastic that could replace fiberglass or caulk

Booze and driving are a bad combination, but US auto company Ford and Mexico's tequila maker Jose Cuervo have found a way to mix together.

The two companies have joined forces to explore the possibility of

transforming fibers from agave, the plant used to make tequila, to create bioplastic that could replace fiberglass or caulk.

Researchers are testing the material's durability and resistance to heat to see if it can be used in components such as wiring harnesses, air conditioning units and storage bins.

The bioplastic could help reduce the weight of a vehicle and cut energy consumption, while slashing pollution by using less petrochemicals.

"Agave is a good replacement and it's lighter in weight," Debbie Mielewski, the senior technical leader at Ford's sustainability research department, told AFP.

Lighter cars

Mielewski has worked on finding renewable materials for vehicle components since the 1990s, helping Ford find alternatives to petrol-based products, whose costs are affected by global oil prices.

In 2001, she and her team designed soy-based foam, which is used to make car seats that made their debut seven years later in the legendary Ford Mustang.

Now the seats of all Ford vehicles produced in North America are made of biomaterials.

"The average vehicle contains about 400 pounds (180 kilos) of plastic and our goal is to replace as much as possible with sustainable biomaterials, further reducing our use of petroleum-based plastic," Mielewski said.

The company uses materials found in the regions where vehicles are

manufactured.

In Asia, Ford uses kenaf, a tropical plant. In the United States, it's cotton fiber. And in Canada, wheat straw.

Tequila maker Jose Cuervo and auto company Ford have joined forces to explore the possibility of transforming fibers from agave, the plant used to make tequila, to create bioplastic that could replace fiberglass or caulk

Mielewski realized that agave could be used at Ford's factory in Hermosillo, in the northwestern state of Sonora.

She thought of the first tequila company that came to mind, Jose Cuervo.

"I think it will be a revenue stream for them and agave farmers," she

said.

Other automakers interested

To make tequila, the heart of agave—a plant with tall, thick and pointy leaves—is harvested, roasted and ground before its juices are squeezed for distillation.

More than 700,000 tonnes of agave are used every year to make Mexico's famous drink, and 40 percent of the husk is discarded, according to the Tequila Regulation Council.

Jose Cuervo, which has been making tequila since 1795, uses some of the fibers as compost for its fields while local artisans make crafts and paper from the byproduct.

Cristobal Mariscal, Jose Cuervo's director of institutional relations, said the company is exploring the possibility of using agave for the large-scale production of paper.

Ana Laborde, founder of Biosolutions, a Mexican company that makes bioplastics with agave, told AFP that "more and more automobile companies are interested in incorporating natural fibers into their auto parts."

Laborde's firm, which is not working with Ford, makes bags and packages but it is also experimenting with polymer that could be used for vehicles.

She said making such materials for cars would be a commitment toward the environment instead of profits because there is no large market for it for now.

"By reducing the weight of a car, it uses less fuel and it pollutes less," Laborde said.