

Andalusian scientists obtain biodegradable plastic from tomato skin

LOCATION: Sevilla

DURATION: 1'49"

SUMMARY: Researchers in Seville have obtained completely biodegradable plastic from tomato skin. This would be a substitute for plastic bags which are sold at supermarkets. As these new bags are made out of the waste generated by the tomato industry, the manufacturing of these bags wouldn't imply food consumption. These researchers are now testing different additives to shorten the life of this plastic; this would be an added value for the package made out of this material, as the expiration of the product could be associated with the integrity of the package. This plastic, that is the result of two year of investigation, has been developed by the Institute of Materials Science in Seville with the collaboration of the University of Málaga.

VTR

Do you think that from something as natural as tomato we could create a piece of plastic as this one? The answer is yes, completely biodegradable and an ecological alternative to the one that comes from petroleum.

INMACULADA DE VARGAS
Researcher

"The tomato industry generates waste that can be used for the generation of the product we need to make plastic. 70% of it is degraded within 90days versus, for example, and the polyethene used for egg packaging that can last around 500 years."

It is obtained baking a compound found in tomato's skin, a skin that acts as a natural package that contains the water of this product. The resultant plastic won't leave any toxic waste in its whole life.

INMACULADA DE VARGAS
Researcher

"There are no toxic compounds during degradation."

JOSÉ JESUS BENÍTEZ
Director of the project

"The elaboration process doesn't need contaminant chemical products or heavy metals either, as it happens with traditional plastic."

The Institute of Materials Science in Seville, that collaborates with the University of Málaga in this investigation, is testing the resistance of this natural plastic with different additives that can regulate its duration.

JOSÉ JESUS BENÍTEZ
Director of the project

"It can be important for perishable products. Let's imagine that we have a package whose duration can be controlled, this means that the moment in which the package deteriorates can be linked to the expiration date of the product."

And an alternative to the biodegradable bags we already find at the supermarket.

JOSÉ JESUS BENÍTEZ
Director of the project

"With an additional advantage, to generate plastic bags we need to grow corn and potato. In this case, we wouldn't use a raw material, or something people eats, but a waste."

A plastic that will be in the market in two years, in a future that intends to be more sustainable.

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