

Cheaper bioplastic using olive tree pruning waste

LOCATION: Martos (Jaén)

DURATION: 1'49"

SUMMARY: The Andaltec Technological Centre for Plastics, based in Martos, a village in the province of Jaén, and the University of Jaén, have developed a bioplastic made with fibre obtained from olive tree pruning waste. This material is more resistant and cheaper. Its resemblance to wood and the possibility to transform it, makes it suitable for multiple applications, from packaging to tools manufacturing, or even agriculture.

VTR

This may look like resin, but it is a completely degradable bioplastic that is by 30% cheaper than what is offered on the market. It was created in this lab of the Andaltec Technological Centre for Plastics, based in Martos, thanks to a research project of the University of Jaén. They have added fibre obtained from olive tree pruning waste, to a bioplastic polymeric matrix.

MARÍA DOLORES LA RUBIA
Engineering professor UJA

"As the most important cultivation of the province was the olive tree, we thought about using pruning waste, or wood, to reinforce this material."

FRANCISCO JAVIER NAVAS
Andaltec researcher

"With the first trials we realised that in terms of appearance and properties, the material had much potential, mostly regarding cost reduction."

When it solidifies it is more resistant than the original material and very similar to wood.

FRANCISCO JAVIER NAVAS
Andaltec researcher

"It has good appearance because it's very similar to wood, and better processability than wood, as it can be moulded through injection moulding, extrusion or thermoforming."

MARÍA DOLORES LA RUBIA
Engineering professor UJA

"It could substitute bioplastic in many applications of the packaging sector, in domestic utensils, agriculture... In any of the applications in which bioplastic is used, this material would reduce costs."

It could have multiple uses in the car industry or gardening.

CARMEN CASTELLÓN
Doctorate student

"In addition, we could replace those petroleum-based polymers, which are disadvantageous because of its high price and resource depletion, for this biodegradable polymer that helps us protecting the environment."

The research is already in its last stage, and this bioplastic will be available for the industry in the beginning of 2017.