

A heating system for greenhouses turns agricultural waste into fuel

LOCATION: La Mojonera (Almería)

DURATION: 1'27"

SUMMARY: Researchers from the Las Palmerillas Cajamar Foundation Experimental Station and from the Chemistry Department at the University of Almería are starting to use the remains of pruning as biomass to heat greenhouses during the coldest months. This system is completely clean and green, and in addition it means a solution for one of the main problems of greenhouses, waste management. In addition, this pioneer technique permits capturing the CO₂ generated in combustion, using it to improve the performance of plants.

VTR:

A greenhouse that generates its own energy. It does with the remains of pruning. A pioneer project developed in Almería that offers a solution for two problems that affect the environment: vegetal waste management and energy self-sufficiency.

MARÍA DOLORES FERNÁNDEZ
Researcher

"What we do is burning this waste in a furnace. We use that heat for greenhouse heating during the coldest months and we also capture CO₂ generated in combustion and we introduce it in the greenhouse during the day. We can obtain this material from this waste, which is denser and can be used in the furnace."

Researchers from the Las Palmerillas Cajamar Foundation Experimental Station and from the Chemistry Department at the University of Almería are using this system for the first time.

MARÍA DOLORES FERNÁNDEZ
Researcher

"What is new about this system is using the remains of pruning generated in the greenhouses of Almería as fuel. With this we are trying to give a solution to the serious problem existing in the area due to the huge amount of vegetable waste generated every year."

Each hectare of crop in the province of Almería generates a ton of waste every year, that's why farmers have welcomed this project.

EUGENIO MARTÍN
Farmer

"It seems correct for me because if it solves a big problem we have in these crops regarding agricultural waste that project would be interesting."

An initiative that also means a 15% of energy saving compared to other industrial techniques used until now.

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