# Biogas Systems

# Tarenti Farm

# PROJECT INTRODUCTION

At the Tarenti farm, 15 km south of Tunis, Mr. and Mrs. Daoud have been growing trees and raising dairy cattle for the production of Cheese of Drawer in their own cheese factory on the farm. Before reaching out to Methania, they suffered from high electricity cost and the instability of the electrical grid. To produce cheese, Mrs. Daoud used hot water heated with an oil boiler. This fuel, which even subsidized, has a high cost affecting the cheese production activity's profitability on the farm. In addition, the Daouds had to spend additional money on mineral fertilizers and pesticides to produce grapes, olives and vegetables.

### THE JALLAGAZ PROCESS

In 2019, the Daouds installed a dry methanization solution JallaGaz 02 manufactured and installed by Methania on only 160 m² of land with an investment of 278 kDT. This solution has a treatment capacity of 300 tons of bovine straw manure per year.

#### FROM MANURE TO BIOGAS

Since its installation, the dry batch process micro-methanization unit has allowed them to valorize their manure into biogas. Thanks to a 6 kWh biogas micro-cogenerator, the biogas is being transformed into electrical and thermal energy. Thus, Mr. and Mrs. Daoud were able to cover all their electricity needs, while solving the problems of instability on the electrical network. In addition, they covered 80% of their hot water needs, which helped them to considerably reduce their cheese production costs.

The manure digestate coming out of the JallaGaz digesters is hygienised, of improved nutritional quality. Its application has reduced the farm's manure expenses by 30%.



# **PROJECT DATA**

• Location: Tunis, Tunisia

# **UNIQUENESS OF THE PROJECT**

- JallaGaz is a dry digestion solution with an annual treatment capacity of 300 to 3000 tons of municipal or agricultural waste.
- JallaGaz is modular, automated and can be supervised and controlled remotely.
- JallaGaz is insensitive to contaminants, without any sorting required before digestion.

# For more information:

- www.methania.com
- <u>ibtihel.bouajila@methania.com</u>





