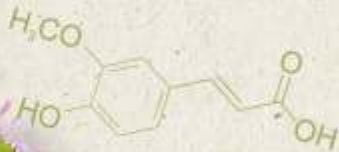
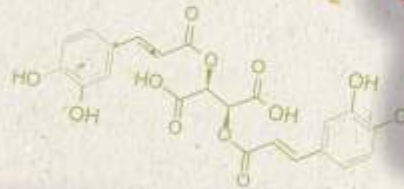


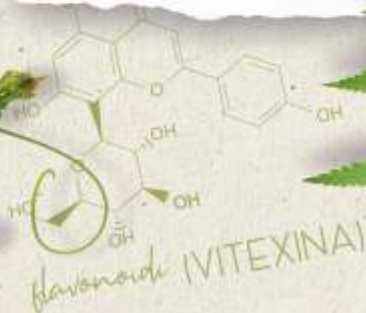
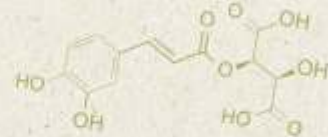
Acido Rosmarinico
(ma anche flavonoidi)



Acido Ciconico
e Caffeico



OfficinAgriBi



Acido Chlorogenico



AGRIBIOENERGIA

was born with the project of creating a local supply chain linked to

agro-energies

OUR HISTORY

2005



A group of young people farmers found **AGRIBIOENERGIA** Soc. Coop. Agricola.

2010



One of the first biodigesters in the province of Bologna starts up. The 25 members cultivate dedicated biomasses by transforming them into electrical energy.

2011



A part of dedicated biomasses is replaced with vegetal by-products.

2014



A new company branch is born, related to cultivation and drying of medicinal herbs.



1000 kWh
of electrical power
produced every hour

1000 kWh
of thermal energy produced
every hour in the form
of hot water at 80°C

230 kWp
of electricity produced
by fotovoltaic system

10 Dryers
that can be powered
at the same time

2018

2020

2023

Oggi

The new building is built with the intention of using it for the drying, processing and storage of medicinal plants.

Enlargement of the processing and packaging line in order to facilitate the activity of our operators.

Installed 467 photovoltaic panels with advanced technologies to further reduce energy consumption to benefit the environment.

30 specialized
farmer members
3000 hectares
of cultivated land

OUR STRENGTHS



High availability of renewable electric and thermal energy



Fertile soils



The company type: 30 specialized farmers



The possibility of having very large rotations on cultivated land



Precision and high technology machinery - equipment in order to guarantee the best products with the lowest impact





Coming together is a beginning ...



THE BIOGAS PLANT FOR ANAEROBIC DIGESTION OF DIFFERENT ORGANIC MATRIX

Corn, sorghum, cattle slurry and by-products of agro-industrial processing come reused to obtain renewable electrical and thermal energy.



Production of **renewable electrical and thermal energy** which is a source of replicable power that takes advantage of the sun and the photo-synthesis of plants from year to year.



The use of agro-industrial by-products allows to **reduce the pollution** caused by the disposal of agro-industrial matrix and to reduce costs.



Localized energy production, closer to the end-customer.



Possibility of **storing energy** under the form of compressed or liquefied methane.



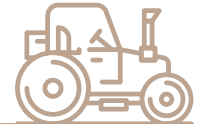
Reduction in the use of synthetic chemical fertilizers: digestate is an excellent organic fertilizer.



The use of thermal energy maximizes the **energy efficiency** of these systems.



...staying together is progress...



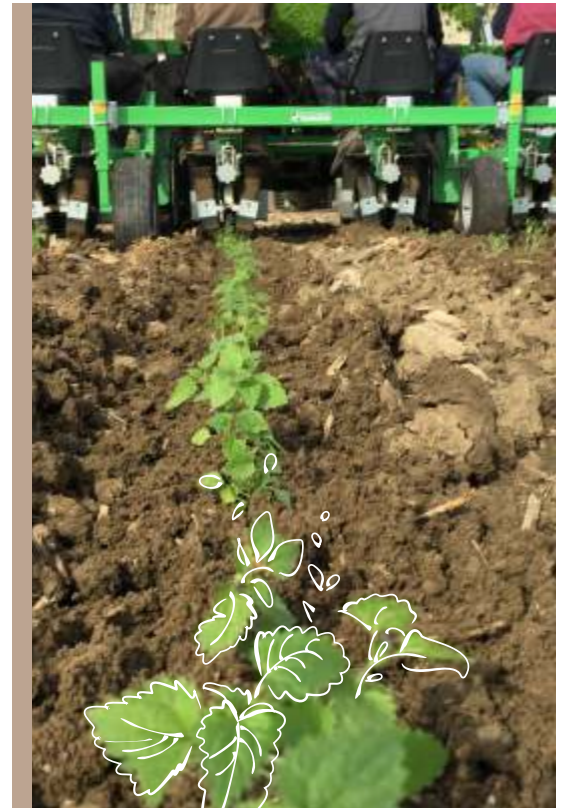
AGRIBIOENERGIA IS A COOPERATIVE OF FARMERS WHO LOVE THEIR WORK

The herbs are cultivated by the members of the cooperative by following specific agronomic techniques and practices.

Each processing is carried out with **highly technological methods**: precision farming, which achieves the best results through satellite guidance systems, **in respect of the plant's need** by eliminating the use of herbicides in organic and conventional crops.

The farmers are supported by the agronomic manager of the cooperative, who monitors the trend of cultivation throughout the **production cycle** and who establishes together with the farmer himself which agronomic practices must be carried out and which is the best time of harvesting.

From 2022, members will record all processing on an app installed on their smartphones. In this way we know in real time what is happening in our fields, thus also enhancing our traceability system.



The fertilization of medicinal plants is mainly carried out using **DIGESTATE**, an organic fertilizer coming from the biogas plant.

The harvest takes place through a mower-loader machine that avoids the contact of the plant with the ground and it happens during the balsamic time, the period in which the plant offers its best qualities; the herbs are then delivered to the factory, where they are dried at low temperatures (between 35 °C and 55 °C) and at controlled humidity.

The drying process begins immediately after the harvest in order to **stabilize the characteristics of the plant** as quickly as possible.



The professionalism of the farmers, the constant presence on the fields of the agronomic manager and precision farming method lead to obtain excellent results from the quality's view in the cultivation of medicinal plants.

...working together is a success!



GIVING VALUE TO THE BY-PRODUCTS

To make the most of the abundance of thermal energy, a research study has been carried out and it has led to the birth of a new supply chain linked to the cultivation and processing of medicinal plants.



THE RAW MATERIAL The plants are cultivated by the members of the cooperative and delivered to the factory so that the manufacturing process can start.



MACHINE FOR THE DISTRIBUTION OF THE FRESH PRODUCT IN THE BASKETS

Through conveyor belts, the fresh product is distributed inside the baskets, which are then weighed by the load cells positioned under the machine, the weight inserted in the individual baskets is homogeneous and the product evenly distributed. This process allows the drying process to take place correctly.



THE DRYERS The drying ovens are supplied with the renewable energy and hot water coming from the biogas plant, and they are controlled by a software which allows them to manage the different drying phases according to the individual herb, the humidity and temperature conditions present at the moment of drying. A customized "drying recipe" has been set for each plant.



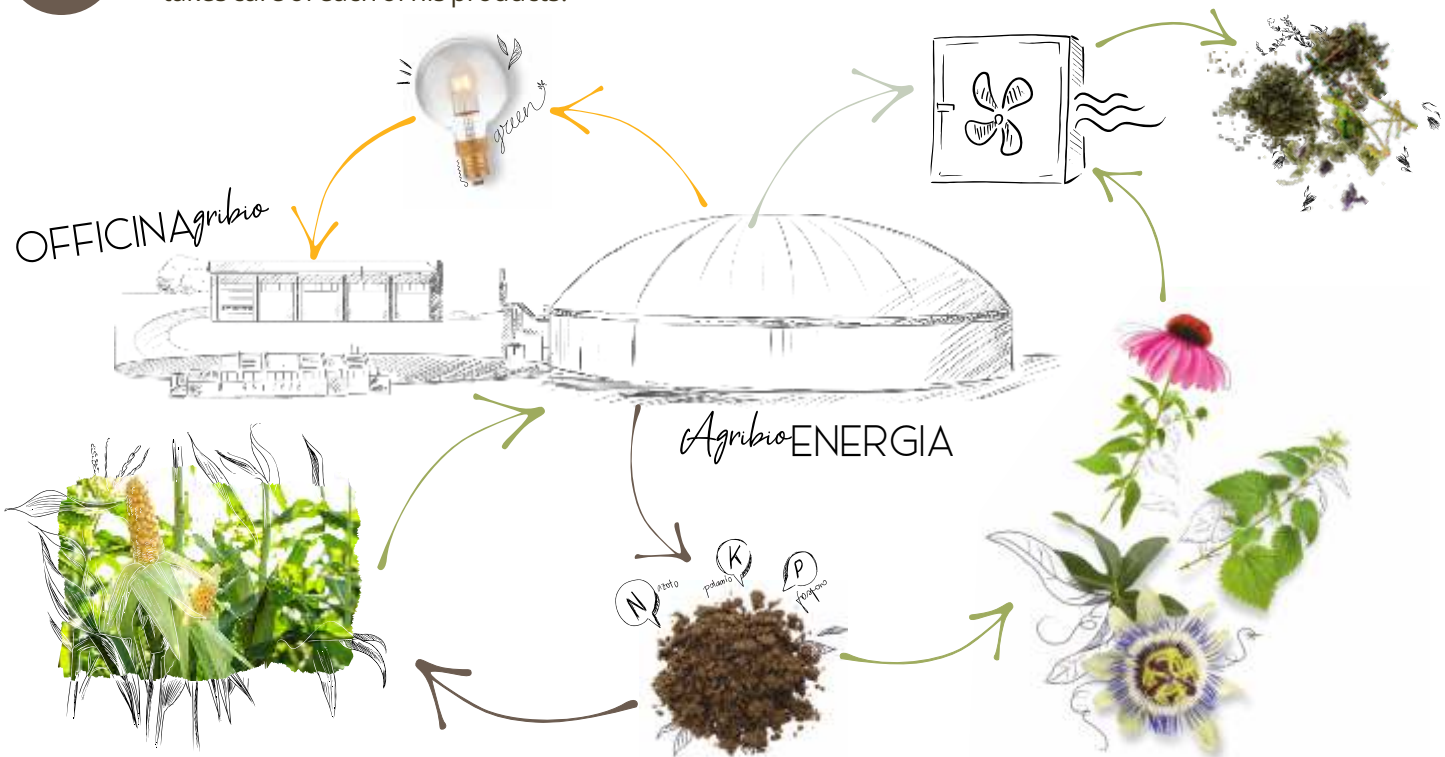
THE PROCESSING ROOM we are equipped with machinery for stem-leaf separation, for cutting and calibration.



THE WAREHOUSE The warehouse of dried herbs is a dark room, with controlled temperature and humidity, in order to guarantee the best preservation of the products.



QUALITY TRACEABILITY AND CERTIFICATIONS, we approach our work with the professionalism of a great dynamic and ever-evolving company, but also with the typical spirit of the craftsman who loves and takes care of each of his products.



THE PROCESSING LINE

Thanks to the introduction of the new packaging machine, we have automated all the processing steps of the dried product, from the pre-cutting phase to the final packaging.

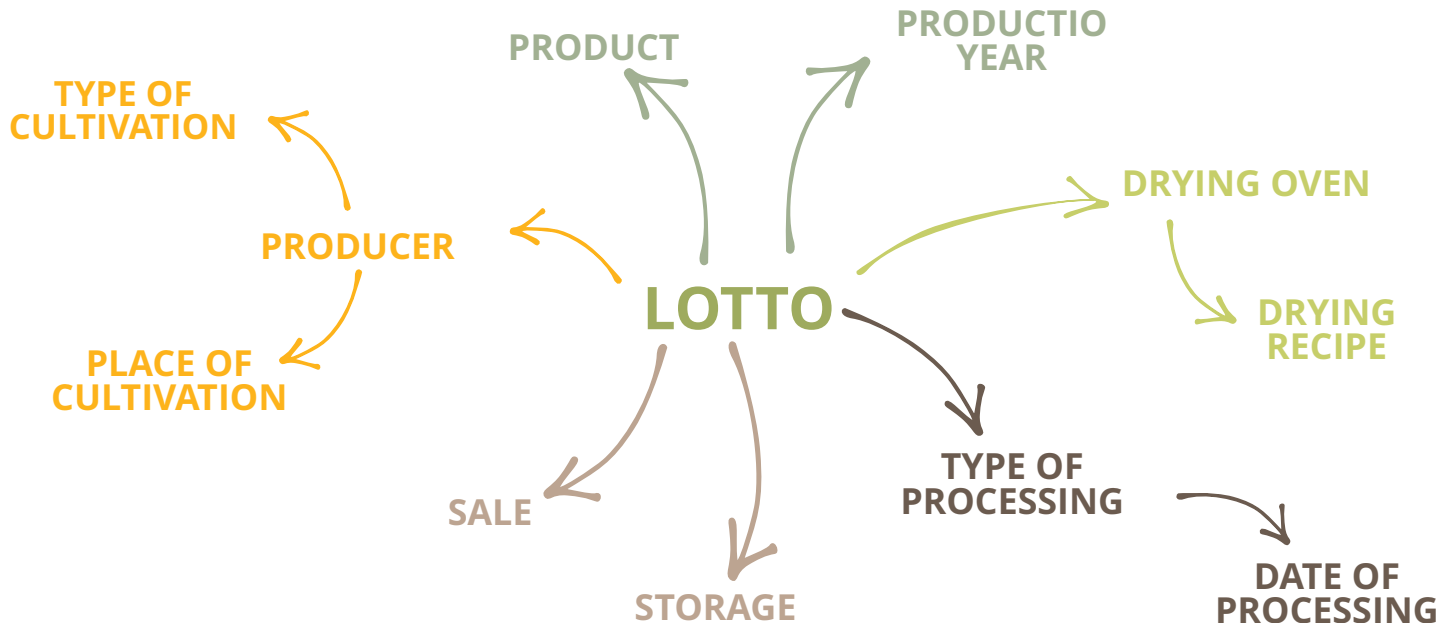


Manual operations have been reduced, this allows to diminish as much as possible any contaminations and to improve the working conditions of operators.

TRACEABILITY

Quality and traceability are essential for our company.

Each plant has a **specific protocol** which concerns the entire production process
Every single step related to the plant is traced and recorded: from planting in the field, to harvesting, drying and subsequent processings.



RESEARCH AND DEVELOPMENT

Our company constantly invests in research and development.



MANUFACTURING LINE Each year we make improvements with the aim of increasing the efficiency of the line and the quality of our products.

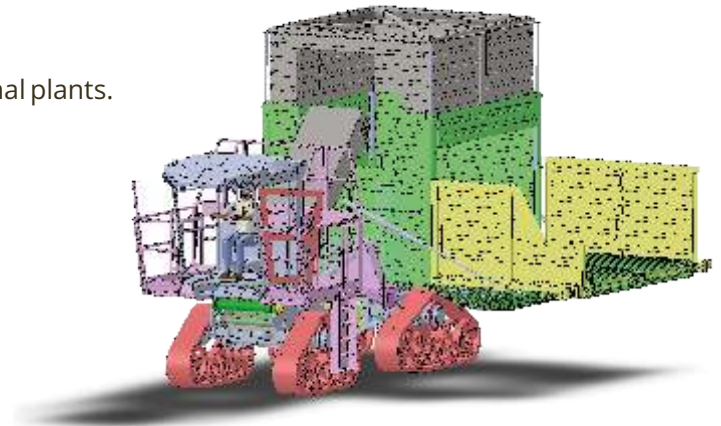


DOCTORATE OF INDUSTRIAL RESEARCH Thanks to PNRR funds, a PhD program has been activated in 2022 in collaboration with the University of Bologna on the medicinal herbs sector.



AGRICULTURAL MECHANIZATION

We are designing a new machine for harvesting medicinal plants.





Our products are cultivated-processed in Italy and exported to Europe, Australia, United States and China.





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