



Febbraio 2018



## At D'Uva's school

### "DOLCI GRAPPOLI" FARM HOLIDAY

The D'Uva company  
Larino



## THE ENERGY BASIN OF THE VINE

Geothermal energy is a form of energy that derives from the heat present in the deeper layers of the earth's crust. Penetrating deep into the earth's surface, the temperature gradually becomes higher, increasing on average by about 30 ° C per km. Enthalpy represents a very important thermodynamic property and expresses the amount of energy potentially transferable to the environment and therefore transportable.

The company "Cantine D'Uva" of Larino in 2011 participated in a notice issued by the CCIAA of Campobasso , for the creation of a low enthalpy geothermal plant. This first application in Molise of a heat pump combined with geothermal, experimental and highly innovative project represents one of the many applications in the wine industry, replicable in the dairy, fruit and vegetable and / or food preserves sectors.



## Agrienergetic Basins

The energy basin of the vine is located in the irrigated hill where about 70% of the vine is present in the territory of ten municipalities, particularly in the municipalities of Campomarino and San Martino in Pensilis. In this area there are 6 large wineries with agricultural areas between 30 and 80 hectares, for a total of 300 ha and 3 cooperative wineries.

The energy enhancement of pruning in thermal, electric and refrigerating energy is being tested. The Region is providing training to operators, in particular to the social cellars, of the current technological possibilities of energy conversion of pruning. These plants will lead to significant energy and economic savings .

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## The D'Uva company

In the 40s grandfather Angelo D'Uva planted the first vineyards. Between the 60s and the 70s his son Sebastiano increased the company with constancy and absolute dedication. The leap in quality is carried out with Angelo, the current owner who specialized the company in the wine production and began in 2001 the direct transformation the grapes and the production of DOC and IGT wines. The calcareous clay soils characterize the wines. The -Trebbiano-, the -Malvasia- and the -Chardonnay- are grown for the white wines, the -Monte Pulciano-, the -Cabernet Sauvignon- for the red ones to which is added the autochthonous variety of -Tintilia-.



The geothermal and the low enthalpy, applied in a winery, which requires controlled climate conditions in various environments including the barrel, allows to maintain the desired microclimate with reduced consumption also encouraging the improvement of the quality of the wine, because it allows you to control temperature and humidity. The most important physical / environmental parameter in refining wines is the temperature because it regulates the speed of chemical reactions that are directly proportional to the temperature; for example for white wines generally the ideal temperature of agi-

## PLACE WHERE WINE BARRELS ARE



ing is between 12 ° C, for red wines it is between 14 ° C and 18 ° C. It is a fundamental parameter that influences the dissolution and consumption of oxygen by the wine; at low temperature the dissolution of the oxygen is favored, while at high temperature the consumption processes are favored.



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## ANGELO D'UVA WITH COMMITMENT AND PASSION



**"FOR THE LESS  
DESTRUCTION,  
LET'S REDUCE  
THE  
CONSUMPTION"**

The grapevine

The wine

The earth

The vintage

**I.I.S.S. "L. Pilla" Campobasso**

Sito web: [www.pillacb.gov.it](http://www.pillacb.gov.it)

E-mail: cbis02100c@istruzione.it

Pec: cbis02100c@pec.istruzione.it

Tel.: 087460015

**The D'Uva company**



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Ideazione e progettazione  
Prof.ssa Amalia Borelli

Teacher Ersilia Petardi  
Students Valeria Di Florio, Pina  
Miriam Farinaccio, Dora Porcarelli,  
Debora Moffa

The educational action promoted by the ERASMUS + project aims to spread awareness among young people of the consumption of natural resources and their conservation for future generations. Absolute priority is the knowledge of the use of renewable and alternative energy to fossil ones in productive activities for the future entrepreneurs.



**The grapevine- The wine -The earth- The vintage**

