

## Cavitation of grape pomace for enhancement for energy purposes

### Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

CaVin

Tematica

Energia rinnovabile

Information

Time frame

2017 - 2020

Durata

34 months

Partners (no.)

3

Regione

Emilia-Romagna

Comparto

Viticultura

Localizzazione

ITH51 - Piacenza

ITH53 - Reggio nell'Emilia

Costo totale

€159.816,59

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP003: Italy - Rural Development

Programme (Regional) - Emilia Romagna

Parole chiave

Climate and climate change

Waste, by-products and residues management

Energy management

Sito web

<http://cavin.crpa.it>

Project status

completed



### Objectives

The Operational Group (OG) wants to enhance the grape pomace for energy purposes and, in particular, test the hydrodynamic cavitation pretreatment to increase the potential methanogenic of the grape pomace, with laboratory testing, and operational checks on a farm, OG partner, equipped with a biogas plant with cavitation.

### Activities

The cavitation pretreatment acts on the fibrous component of the pomace, increasing the surface attacked by anaerobic bacteria. The laboratory tests will evaluate the efficiency of this pretreatment. The experimental work will be conducted with a multi-level approach: characterization of individual biomass before and after cavitation (Action 1) and the assessment during an anaerobic digestion tests continuously (Action 2). Finally all the problems related to the management of the grape pomace, such as logistics, storage and feeding to the digester in full scale will be analyzed (Action 3).

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	C.R.P.A. S.p.A.	V.le Timavo 42/2 42121 Reggio Emilia RE Italy	0522 436999	info@crpa.it
Partner	Cantine Riunite & CIV soc. coop. agricola	Via Brodolini 24 42040 Campegine RE Italy	0522 905711	info@riuniteciv.it
Partner	Società Agricola Fontana ss	Via del Colombarone 6 29015 Castel San Giovanni PC Italy	0377 56410	p.ivana60@libero.it

## Pratiche abstract

### Description

The Emilia Romagna Region produces about 6.3 million hectoliters of wine (ISTAT 2014), generating a good availability of by-products (pomace, stalks, seeds). The wine industry byproducts, are already partly started to energy recovery from anaerobic digestion, but given the presence of fibrous matrices, their potential is exploited only partially. The Operational Group (OG) wants to promote the grape pomace for energy purposes and, in particular, test the cavitation pretreatment to increase the methanogenic potential of the grape pomace, with laboratory testing, and operational checks on a farm, a OG partner, with biogas plant. The OG wants to develop links between the wine cellars that produce by-products and farms with biogas plants.

The OG will try to understand the current use and/or destination of such byproducts/residues and evaluate which and how many by-products may advantageously be sent to the production of biogas in the many biogas agricultural plants present in Emilia-Romagna Region.

### Link utili

Titolo/Descrizione	Url	Tipologia
Sito web del progetto	<a href="http://cavin.crpa.it">http://cavin.crpa.it</a>	Sito web
In una newsletter le nuove attività del GOI	<a href="http://cavin.crpa.it/nqcontent.cfm?a_id=19787">http://cavin.crpa.it/nqcontent.cfm?a_id=19787</a>	Materiali utili
Prova di cavitazione controllata delle vinacce	<a href="http://cavin.crpa.it/nqcontent.cfm?a_id=19858">http://cavin.crpa.it/nqcontent.cfm?a_id=19858</a>	Materiali utili
Un articolo su Cavin su Pianeta Psr	<a href="http://www.pianetapsr.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/2286">http://www.pianetapsr.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/2286</a>	Materiali utili

<b>Titolo/Descrizione</b>	<b>Url</b>	<b>Tipologia</b>
Intervista con gli attori del progetto	<a href="http://cavin.crpa.it/nqcontent.cfm?a_id=20176">http://cavin.crpa.it/nqcontent.cfm?a_id=20176</a>	Materiali utili
Su Tecnologie Alimentari un articolo su biometano e cavitazione	<a href="http://cavin.crpa.it/nqcontent.cfm?a_id=20277">http://cavin.crpa.it/nqcontent.cfm?a_id=20277</a>	Materiali utili
La cavitazione delle vinacce funziona	<a href="http://cavin.crpa.it/nqcontent.cfm?a_id=20549">http://cavin.crpa.it/nqcontent.cfm?a_id=20549</a>	Sito web
In un opuscolo i risultati di Cavin	<a href="http://cavin.crpa.it/nqcontent.cfm?a_id=20769">http://cavin.crpa.it/nqcontent.cfm?a_id=20769</a>	Materiali utili
In una newsletter i risultati del GOI CaVin	<a href="http://cavin.crpa.it/nqcontent.cfm?a_id=20810&amp;tt=t_bt_app1_www">http://cavin.crpa.it/nqcontent.cfm?a_id=20810&amp;tt=t_bt_app1_www</a>	Materiali utili
Terra e Vita parla del progetto Cavin	<a href="http://cavin.crpa.it/nqcontent.cfm?a_id=20886">http://cavin.crpa.it/nqcontent.cfm?a_id=20886</a>	Materiali utili