Vigna Energetica

Prof Robert Ghirlando

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THE PARTNERS

Istituto Regionale Vini & Oli di Sicilia
Corissia
Csei Catania
ABE srl
Ministry for Resources and Rural Affairs
University of Malta

Aims:

to reduce dependence on traditional energy sources and to develop new technology for the production of energy from renewable sources.

More specifically:

reducing emissions and energy costs of production,

ecological waste disposal,

development of new sources of income,

maintenance of results after the conclusion of the project.

Activities planned:

- management and coordination and communication,
- the evaluation of the available energy through the estimation of the quantities of residual biomass in Sicily and Malta,
- verification of an additive of agricultural origin for the production of bio-diesel and characterization of low-blend ethanol-diesel fuels,
- the reuse of wastewater from winemaking,
- the uptake of CO2 by fermentation of the wine industry for use in food industry or in the energy sector,
- the use of solar energy to power cooling systems used in the cellars.

WP 1		1. Cordinamento Partenariato 2. Segreteria 3. Gestione finanziaria
WP 2		2.1 Valutazione del potenziale energetico disponibile in biomasse 2.2 Sperimentazione di processi tecnologici relativi all'avvio di impianti a biomasse 2.3 Sperimentazione dei sistemi naturali per il trattamento delle acque reflue enologiche 4.2 Estrazione di componenti di interesse per l'industria farmaceutica da vitigni autoctoni e internazionali

WP 3		1. Valutazione del potenziale energetico disponibile in termini di etanolo e additivo naturale 2. Sperimentazione dell'additivo combinato all'etanolo e al diesel
WP 4		4.1 Fissazione della CO2
WP 5		5.1 Utilizzo dell'energia solare per il raffreddamento delle cantine

WP 6		6.1 Attività di informazione per operatori del settore 6.2 Attività di divulgazione 6.3 Ufficio stampa 6.4 Realizzazione di un centro studi a Malta 6.5 Conferenza conclusiva

WP 5, “The use of solar cooling technology in the processing of wine”, co-ordinated and supervised by Prof R Ghirlando, involves the following activities:

- Researching and designing two solar driven refrigeration systems, using off-the-shelf components:
  - (1) a vapour absorption machine driven with heat from solar panels.
  - (2) a conventional vapour compression machine driven by electricity from PV panels.
- Preparation of tender documents for procuring the equipment and instrumentation;
- Supervising the installation and commissioning of the equipment and instrumentation
- Monitoring the operation of the two systems, with a view to establishing the relative advantages.
- Related activities.

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The systems will be installed at the Wine Research Centre at Buskett.

Current status of project: Process for the employment of a Research Support Officer in progress.

THE END