

MATARROMERA LEADS MINECO'S "LIBRETT" PROJECT

Project Title: A COMPREHENSIVE FIGHT AGAINST PHENOLIC COMPOUNDS IN WINE. DEVELOPING NEW TECHNIQUES TO CONTROL AND ELIMINATE BRETTANOMYCES FROM THE MANUFACTURING PROCESS OF RED WINES - LIBRETT

Project collaborators:

- Matarromera Winery Ltd.(leader)
- Ekinsa Industrial EquipmentPLC
- The Wine Technology Park (Vitec)

Project duration:03/02/2014-31/12/2017

Call for proposals: MINECO Challenge Collaboration 2014. Performance Rating: 8.28

Objective:

To develop new methods and strategies for eliminating phenolic components from red wines whilst avoiding the use of allergenic compounds.

Specific objectives:

In order to control and/or eliminate the presence of this microorganism, a series of specific technical intermediate objectives should be laid out and addressed:

1. Reducing the quantity of Brettanomyces in wine during the production process
2. Sanitization of barrels. Compliance with EUDirectives.
3. Reducing the ethylphenol content of wine
4. Pilot tests. Scaling up findings for use on an industrial scale

Proposition

Among the modifying compounds found in wines that develop during production, it is the Brett component that is responsible for the large majority of defective wines. As an issue that affects the wine market on a global scale, the elimination of these compounds is seen as a key priority in the wine-making sector. Although the proliferation of this modifying microorganism can occur at any stage in the wine-making process, it is during the barrel-ageing stage that this risk is at its highest.

Owing to a lack of viable alternative options, the ban on the use of sulphur dioxide as a disinfectant during the sanitization of barrels has left the industry defenseless against this problem. This has led to a tough economic blow, as well as a worldwide decline in the quality of Spanish barrel-aged wines. At present, there are no efficient or economically viable means or methods of controlling and reducing the presence of Brettanomyces bruxellensis in barrels used during the ageing process, meaning this stage in the production process continues to be a weak spot.

This project will allow new appliances for oak barrel disinfection to be launched onto the market, which will ensure the complete elimination of Brettanomyces and continued quality of barrels, as well as compliance with Directive 98/8 of the European Commission on the use of biocidal products.