

Up to 50% fewer phytosanitary products required to treat vine diseases

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Credit: Elhuyar Fundazioa

The FITOVID project, the results of which were presented recently, has managed to decrease the amount of phytosanitary products required in vineyards by up to 50 percent.

The project aimed to demonstrate that it is possible to reduce the [environmental impact](#) of [grape production](#) if fewer phytosanitary products are applied to vineyards. In the case of mildew, the project achieved a 50 percent reduction in the number of treatments required, and in relation to [powdery mildew](#), the amount of product dropped by 25 percent in comparison with the usual model employed by wineries and vine-growers.

Over a single hectare, this reduction leads to an economic savings of 28 percent in the case mildew and 90 percent in the case of powdery mildew. The results were presented at an event held in Arkaute.

The FITOVID project lasted for three years and focused on the treatment of mildew and powdery mildew, the two most common diseases in the vineyards of La Rioja Alavesa and txakoli vineyards. Work was carried out in plots located in two different agro-climate zones, one in Laguardia (Alava) and the other in Aia (Gipuzkoa). A diverse range of phytosanitary products were applied to the most representative vine variety in each region: Tempranillo in Laguardia and Hondarrabi zuri in Aia. The research work consisted of using new handling techniques with the most common phytosanitary products, as well as assessing the use of so-called 'zero residue' phytosanitary products as an alternative to conventional varieties.

The plots were divided into sub-plots, with a different combination of treatment being applied to each during the 2015 and 2016 seasons. The fruit and harvests obtained were analysed at the UPV/EHU in order to assess the persistence of phytosanitary products in the soil, water and vine products themselves (grapes, must and wine). AZTI was responsible for carrying out human toxicity and bio-accessibility analyses for these same products using zebra fish. Tecnalia's input consisted of the development of a device which is capable of detecting mildew before the moment that its symptoms become visible to the human eye. This

tool will make it easier to decide when, exactly, to apply the first treatment in order to decrease the infectious pressure of the micro-organism which causes the disease. UPC has run training courses for vine growers and technicians working in the industry regarding how to calibrate the machinery used to apply phytosanitary products, paying special attention to the need to ensure optimum conditions in these machines in order to help reduce the amount of product released into the environment. Also, ensuring the correct dose reduces excess residue in the end product.

Provided by Elhuyar Fundazioa

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