

## **0332 - AGROBIOFILM PROJECT. DEVELOPMENT OF ENHANCED BIODEGRADABLE FILMS FOR HORTICULTURE AND VITICULTURE**

Costa-Rodrigues, C.<sup>1</sup>, Martins, M.<sup>2</sup>, Oliveira, M.<sup>2,3</sup>, Lima, A.<sup>2</sup>, Duarte, E.<sup>2</sup>, Monteiro, A.<sup>2</sup>

<sup>1</sup>*Silvex, Quinta da Brasileira, Lote 10, 2130-999, Benavente, Portugal,* <sup>2</sup>*Instituto Superior de Agronomia, Tapada da Ajuda, 1349-017, Lisboa, Portugal,* <sup>3</sup>*Escola Superior Agrária de Santarém, Quinta do Galinheiro, S. Pedro 2001-904, Santarém, Portugal*

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The current practise and use of plastics in horticulture and viticulture is associated with several sustainability drawbacks and negative environmental impacts. Plastics must be removed at the end of each cropping cycle, and, noncompliant disposal of plastics is well documented and widespread. Recent technological advances give biodegradable materials made of starch-based polymers a significant potential for improved environmental sustainability and cost efficiency for end-users. The major value of such materials is that film residues can simply be ploughed into the soil before regular soil preparation for the next crop. The purpose of AGROBIOFILM is to overcome scientific and technical barriers, associated with broad scale introduction of biodegradable mulch film in viticulture and horticulture. Based on small scale tests and field test data, yield/costs analysis will be performed allowing a comparison between different types of biofilms, against a conventional production methodology for the crops in question. These results in a dataset of resource use (fertiliser, pesticides, water, film, traction energy) and output at different growing practice, as well as, a definition of the conditions in which these results are expected to be achieved. This research will lead to the development of novel products, as well as, performance validations of customized product specifications and a study on the implementation conditions which, together with an environmental liability study, will demonstrate the benefits of biodegradable mulch films. According to the activity tasks, field trials began in April 12, with the installation of a vineyard in France. Later, in April 28 and May 6, the experimental field tests for melon and bell-pepper were settled in Portugal. By late July, the first results of the short cycle crops will be obtained for later data treatment, integrating all the monitored variables. In September/October it is predicted to start the strawberry crop evaluation both in Portugal and Spain.