



UNIÃO EUROPEIA Fundo Europeu de Desenvolvimento Regional

FICHA DE PROJETO

Acrónimo:	Biosave
Designação do projeto (PT/EN):	Promoção do potencial económico e da sustentabilidade dos setores do azeite e da castanha
Código do projeto:	POCI-01-0145-FEDER-023721
Objetivo principal:	Reforçar a investigação, o desenvolvimento tecnológico e a inovação
Entidade financiadora/Programa de financiamento:	FEDER / POCI
Região de intervenção:	NUTS 2/3
Custo total elegível:	13.482,60 EUR
Apoio financeiro da União Europeia:	11.460,21 EUR
Apoio financeiro público nacional/regional:	2.022,39 EUR
Taxas de financiamento:	85%
Entidade beneficiária:	Instituto Politécnico de Santarém - ESAS
Investigador Responsável:	Maria do Céu Godinho
Parceiros:	 INSTITUTO POLITECNICO DE BRAGANÇA CENTRO NACIONAL DE COMPETÊNCIAS DOS FRUTOS SECOS - ASSOCIAÇÃO CNCFS ACUSHLA, S.A.
Orçamento global elegível:	148.300,26 EUR
Equipa:	Maria do Céu Godinho
Data da aprovação:	24-05-2017
Data de início:	15-05-2017
Data da conclusão:	12-05-2019
Domínio científico e subárea científica:	Ciências Naturais e do Ambiente (Natural and Environmental Sciences)
Resumo (objetivos, atividades e resultados esperados) - em PT e/ou EN:	About the Project The major constraints to crop production are pests and diseases via their effects on both yield and quality. Usually, their control has relied extensively on the use of chemical pesticides. These not only pose problems for human health and for environmental contamination, but also generate resistance to pesticides by pests and

pathogenic agents. EU
has adopted a framework directive (Directive
2009/128/EC) that promotes the use of sustainable
control methods of
pests and diseases. In this context, two socio-
economic important crops in Portugal, olive and
chestnut trees, have
phytosanitary problems that need to be tackled
through the use of environmentally friendly
methods. Thus, this project
aims to develop and implement sustainable
strategies and agricultural practices that can be
used by farmers to control
pests and diseases of olive and chestnut trees. For
that, functional biodiversity in olive and chestnut
groves will be
studied (activity 1) considering an increasing
gradient of soil management, irrigation and landscape heterogeneity.
Due to their functions in the agroecosystem, soil
arthropods and parasitoids of two important pests,
i.e., the olive
fruit fly, the key pest of commercial olives and the
Asian chestnut gall wasp, that recently invaded
Portugal and
can cause serious losses to the chestnut fruit sector,
will be collected and identified (using both
morphological and
ecological approached through the application of
functional traits). In activity 2, biotechnical
methods, e.g., application
of Kaolin, will be used against both target pests and
efficacy and side effects on non-target arthropods
will be evaluated.
Biodiversity collected in treated and non-treated
trees will be compared as well as the attack rate of
plant organs by
the target pests. Diseases will be also focused in this
project and in the activity 3, Phytophthora
specimens infecting
chestnuts will be detected and identified by
molecular tools. In activity 4, the influence of the
nutritional status of
trees, in particular leaf nitrogen and calcium levels,
in olive leaf spot severity will be studied.
Chlorophyll fluorescence,
photosynthetic pigments, water content, soluble
sugars and starch will be analyzed and correlated
with the olive leaf
spot severity. Potentially, the results could lead to
improve viability of sustainable practices and obtain
high quality
olive and chestnut fruits. This project will greatly
 benefit from the expertise of the IPBragança and

IDContoném tooma
IPSantarém teams
in biodiversity of natural enemies and soil ecology.
The participation of Acushla, an enterprise
dedicated to the olive
oil business with more than 200 ha of olive grove
will allow establishing practices that can be adopted
in the grove.
Moreover, students from both high education
institutions can visit experimental plots and
practice, in loco, different
methods for sustainable management. CNCFS will
support field work and disseminate results related
with the chestnut
crop among its members.