



# mountains2016

3-7 october · bragança · portugal

I International  
Conference on Research  
for Sustainable Development  
in Mountain Regions

Book of Abstracts



Title: I International Conference on Research for Sustainable Development in Mountain Regions: Book of Abstracts

Editors: Centro de Investigação de Montanha (CIMO)

Published by: Instituto Politécnico de Bragança  
Campus de Santa Apolónia 5300-253 Bragança, Portugal  
<http://www.ipb.pt>

ISBN: 978-972-745-214-9

URI: <http://hdl.handle.net/10198/12135>

Cover design: Atilano Suarez, Serviços de Imagem do Instituto Politécnico de Bragança

# **I International Conference on Research for Sustainable Development in Mountain Regions**

*Book of abstracts*

*Edited by*

Centro de Investigação de Montanha (CIMO)

Instituto Politécnico de Bragança, Portugal  
2016

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## **Sy06P11**

### **Growing hops in Bragança (NE Portugal): past, present and future**

Manuel Ângelo Rodrigues, Jorge Sá Morais, João Paulo Castro  
*Polytechnic Institute of Bragança, Bragança, Portugal*

This paper presents an overview of the importance of hops in the past in the region of Bragança (NE, Portugal) and the current situation of the crop. It will be still presented an evaluation of the ecological conditions of the region for growing hops and discussed the future of hop sector and the need for a deep restructuration of the cropping system. The maximum area under cultivation of hops in Portugal reached 205.8 ha in 1976. In the Bragança region, a historic peak of 99.5 ha was recorded in 1986. In 1970 decade Portugal produced hops to fulfil the needs of the national brewing industry and exported hops in two years of that decade. A difficult international situation and problems at farm level originated a progressive disinterest of the farmers in this crop. Currently, there are only 12 ha of hop fields in Portugal, all in the Bragança region. However, the region of Bragança presents very favorable ecological conditions for growing hops. The plant grows spontaneously along the waterways of the region and the producers who resist of abandonment often reach hop yields above 2000 kg/ha, values higher than that are achieved in the main hops producing countries. The current cropping technique is based on an irrigation system consisting of flooding the space between rows, which reduces competitiveness of the crop due to the associated costs (water, energy, labor, ...). We are looking to the future thinking in the restructuration of the whole cropping technique, changing the irrigation system from flooding to drip irrigation. This change reduces the direct costs with irrigation and may improve the microclimate of the canopy which in turn can reduce the phytosanitary pressure. It also allows managing the soil with cover crops as an alternative to tillage, an aspect with positive economic and environmental implications.