WFC 2009
XIII° Congreso Forestal Mundial
XIII^th World Forestry Congress
XIII^e Congrès forestier mondial
Buenos Aires | Argentina
XIII World Forestry Congress
ABSTRACTS
18 - 23 october 2009

<< BACK
Español

ABSTRACTS

TITLE:

AUTHORS:

THEME:
Theme

SUBTHEME:
Subtheme

Search

Title: Sustainable management models applied to chestnut coppice in the north-east of Portugal

Authors: Patrício, Maria Do Sameiro; Geraldes, Sónia; Nunes, Luís Filipe; Monteiro, Maria Do Loreto

Thema: 2. Producing for development
Subtheme: 2.4 Maintenance and increase of productive capacity of forests

Abstract of the paper: The sweet chestnut (Castanea sativa Mill.) is a valuable species in Portugal, namely in North-east region, both for fruit and timber production that is important to value because it plays an important economical role in this disadvantaged territory. So, the differentiation of management options is needed as an alternative to the traditional practices. A trial with 4 permanent plots was established in a chestnut coppice in 1994, two years after the conversion of a old high forest stand, located in this region (41º 30' 41''N, 7º 37' 15'' W). Three silvicultural management models were applied based on Bourgeois (1992) and adapted to our site conditions. The aim of this research is to study sustainable management models to produce timber with small, medium and large dimensions. These management models are compared with the situation "without intervention" which is the most frequent situation of the coppices in this region. The treatments are: T1= Model 1: small dimensions; T2 = Model 2: medium dimensions; T3 = Control: coppice without intervention; T4 = Model 3: Large dimensions. At sixteen years old we analyse the growth under different management models as well as the potentiality of the shoots to produce quality timber. A PCA and RDA multivariate analysis is performed using qualitative variables of shoots. The results show that the best timber quality of the shoots is associated to the treatments T2 and T4. The control "without intervention" is associated to a stratified canopy due to high competition between shoots in this case. The shoots quality of timber is worse in treatment T3 comparatively to the others. These results demonstrate that the quality of timber is better and more valuable when the silvicultural management models are applied. The evolution of growth in different treatments was analysed. Castanea sativa Mill., Chestnut coppice, management models, growth and yield, quality timber production.

Email: sampat@ipb.pt, sonia.aa.geraldes@alunos.ipb.pt, lfnunes@ipb.pt, loreto@ipb.pt

Full paper: -

Go to Page 1