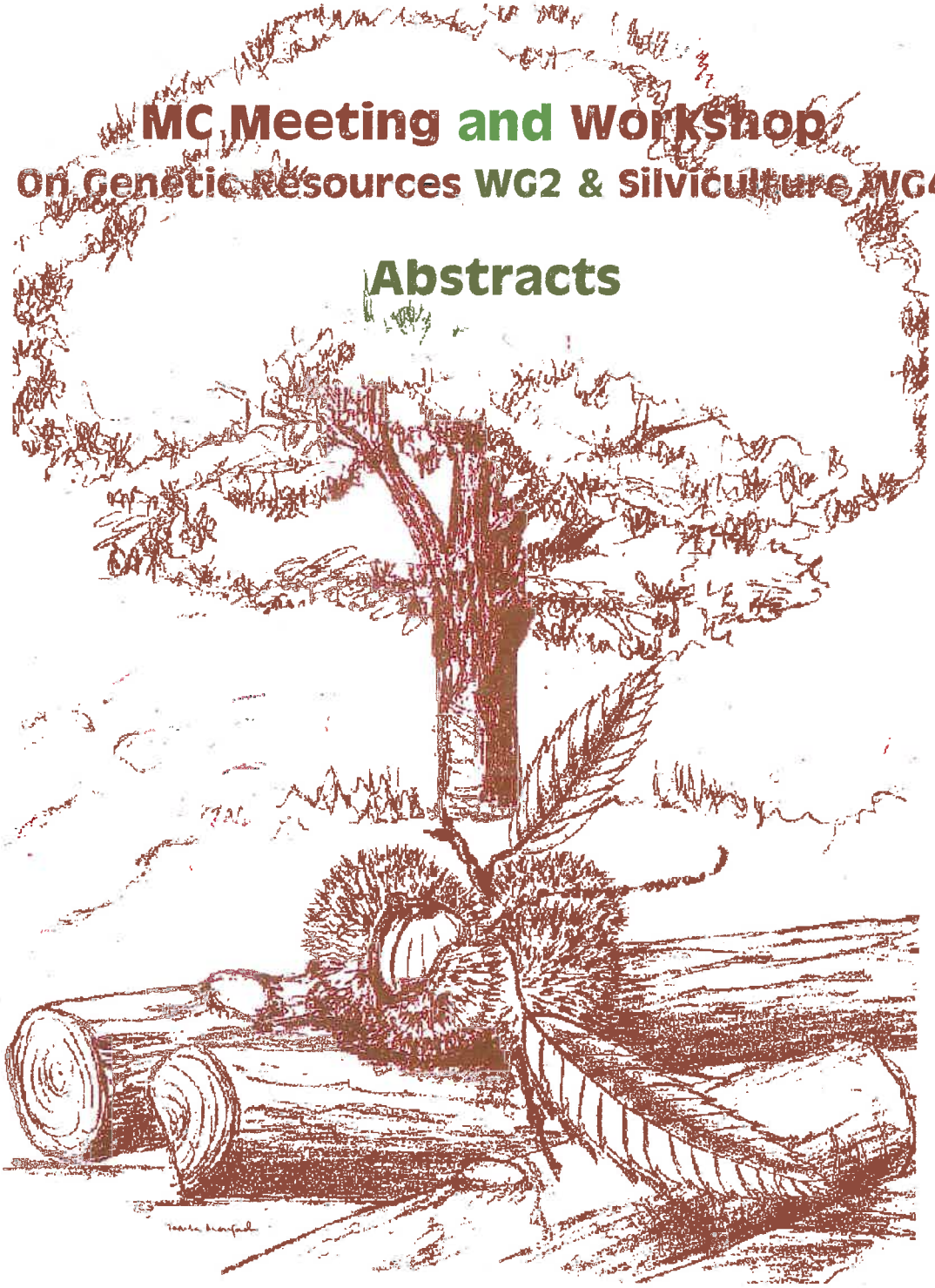
# COST ACTION G4

## Multidisciplinary Chestnut Research

## MC Meeting and Workshop

## On Genetic Resources WG2 & Silviculture WG4

## Abstracts



COST

EUROPEAN COMMISSION

utad

Vila Real, Portugal

October, 18 - 22, 2000

# COST ACTION G 4

## Multidisciplinary Chestnut Research

Co-Ordinator

Eva Wilhelm

## Workshop on

## Genetic Resources WG 2
## &
## Silviculture WG 4

### Working group leaders

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# Abstracts

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Afonso Martins
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Vila Real, Portugal
October 18-22 2000

# COST ACTION G 4

## Multidisciplinary Chestnut Research

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**Genetic Resources WG 2**
**&**
**Silviculture WG 4**

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## Contents

# Sustained management of a high forest chestnut stand in the Serra da Padrela

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**keywords:** Chestnut, high forest, sustainability, productive potentiality

## Abstract

The reform of the "PAC" in 1992 lead to the alteration of the model of incentives to farmers with financial aids being now directly attributed to the revenue as compensations per hectare. In this context the regime of afforestation of agricultural lands is created by the Council through the Regulation 2080/92 establishing a regime of financial aids to forest activities in agriculture land. This program has been applied since 1994.

As an example of the application of this regime there have been established 1050 ha of chestnut stands for wood production in Bragança County between 1994 and 1998. It should be noticed the importance of this value since land is distributed mainly in the 1 ha and 1 to 4 ha size classes. In the same period of time there have been established 6883 ha of chestnut to be managed as forestry and agroforestry systems. There are 40300 ha of areas with chestnut in Portugal according to the forest inventory of 1995.

Adult stands of high forest have poor representation among the areas mentioned above. Thus, its study is fundamental. In this work we studied a chestnut stand of 3.2 ha located in the Serra da Padrela. This area is communal property and according to the economical objectives indicated by the owners it will be submitted to final felling. We marked all the trees and evaluated a set of dendrometric variables, according the following table, that could provide information for the sustained management of the stand.

| Stand area (ha) | N | hg (m) | $h_{dom}$ (m) | dg (cm) | $d_{dom}$ (cm) | G ($m^2$) | V ($m^3$) |
|---|---|---|---|---|---|---|---|
| 3.2 | 513 | 23.0 | 24.9 | 38.9 | 44.6 | 61.10 | 686.433 |

We selected phenotypicaly superior trees (better vigor; straight and cylindrical stems with less defects, more balanced crowns) regularly distributed in the stand with the purpose of assuring seminal regeneration.

During the tree felling other studies will be conducted with the aim of developing tools that contribute to the analysis of the sustainability of the existing production systems and to increase our knowledge about the correlation between productivity and wood quality and its relationship with site factors.

To achieve this objectives we will collect data on felled trees that allow the conduction of several biometric studies namely site quality index, models of total volume estimation by use categories, models of total biomass estimation by components, and quantification of the chemical composition of the biomass components.

Finally we will analyze wood quality including variation of the axial and radial density, width of the rings and characterization of the knots based on samples obtained from the felled trees.