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Tipiditappi

Sughero d'albero fatto a pezzetti,
tipi di tappi , quelli che vuoi.
Tagliali lunghi, tagliali stretti,
tipi di tappi, fatti da noi.
Taglialo bene, taglialo tondo,
tipi di tappi, quanti ne vuoi.
Tappi di sughero per tutto il mondo,
tipi di tappi fatti da noi.
(Cecchi-Tognolini, Filastrocche e Canzoni)

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ORAL PRESENTATION

Session 1: *Ecology, ecophysiology, health and genetic resources*

IDENTIFICATION OF CORK CHARACTERS FOR PHENOTYPIC SELECTION

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Global change effects can determine major changes in species distribution and productivity. In the Mediterranean region of the severity of hot and dry periods is growing and an increased frequency of extreme events and a major vulnerability of natural ecosystems is evident. Cork oak (Quercus suber L.) is widely spread in the West Mediterranean region and its economic and social is important. Managing properly genetic resources is fundamental to preserve diversity and to increase the resilience of species, that assumes major importance in so sensible and delicate social, economic and ecological systems. This study is aimed to consider the phenotypic selection of basic materials for cork traits. Therefore, not only tree shape or wood production phenotypic traits as usual in most forest tree breeding programmes (EU Directive 1999/105/CE). The innovative idea is to introduce traits related to cork quality in the European FRM legislation. Cork samples (100 cm2) were collected from almost 30 mature trees in candidate seed stands in the stripping season. Trees were randomly sampled in three subareas/stand along an altitudinal gradient and characterized phenotypically for growth and shape traits. Traits were measured on Cork specimen keeping as a reference the main commercial requirements. Fresh and dry weigh were measured to estimate the percentage of empty volume determinate by slits, patchy, and insect damages. Damaged areas by slits, patchy, and insects were measured in transverse an tangential sections. Image analysis techniques were applied to measure lenticels (ImageJ program - image processing and analysis in JAVA) as well as outer and inner cork surface were measured for roughness and porosity. Data were managed to perform the multivariate Factor Analysis to identify the most significant cork traits to for seed stand selection and knowing the cork quality variation in Sardinian stands.
Keywords: phenotypic selection, breeding, cork quality, Sardinian cork oak, *Quercus suber*