



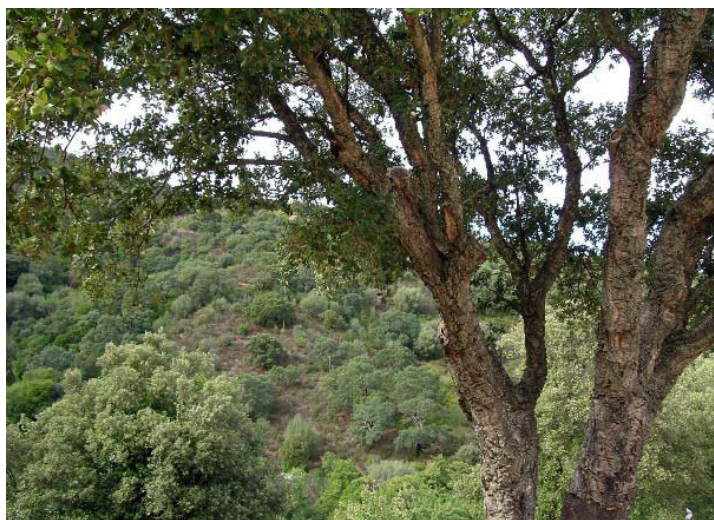
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3° National Congress of Cork

Sassari, May 25 – 26 2017

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**ISBN**            **978-88-907678-0-7**

**DOI**             **<https://doi.org/10.14275/978-88-907678-0-7>**

### ***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)*

**Dettori S., Fligheddu M.R., Cillara M. Editors**

**Printed by**  
**Università degli Studi di Sassari**  
**Centro Stampa**

## POSTER

*Session 5: Cork supply chain technology, supply chain arrangements, markets and trade foresight, product and process innovation*



## MONITORING OF TCA CONCENTRATION IN STOPPERS OBTAINED BY CORK OAK FROM DIFFERENT SARDINIAN AREAS

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A big quantity of cork oak stoppers obtained by raw materials of known origin were submitted to analysis for TCA (Tri-chlorine-anisole) content. Data collection was made possible through the traceability quality system of the F.lli Molinas Company, sited in Calangianus, who friendly supplied stoppers obtained by cork collected during 2011 until 2014 years, in 17 different Sardinian areas.

A spatial and temporal distribution analysis of TCA biosynthesis phenomenon in the cork, through the use of both analytical data of sensory type and other instrumental determinations, was performed. By means of the sensory analysis, following the methodology of ISO 20752/2007 (E), it was determined the number of TCA-positive stoppers released and the percentage of caps with different defects. In each batch of caps, different scents have been identified: corked taste, mold, abnormal odor and doubt. The processed data from sensory analysis were broken down by geographic distribution and related to the instrumental determinations.

The chromatographic instrumental analysis showed a variation of very low concentrations of TCA, as regards the four years of observation and for the lots considered. However, the threshold of sensitivity for the corked flavor (4-6 nL) was frequently overcome. The ultimate goal of the research was to not only verify the existence of correlation between the results of sensory analysis on the different cork matches and TCA content but also highlight possible relationships between the experimental data and some eco-physiological variables. Among others, average temperature (minimum and maximum), average annual pluviometry, referring to the decade of the cork plank development were tested for the correlation with TCA content.

Keywords: Tri-chloro-anisole, stopper taste, sensory analysis