

**Title** Detection of pectinmethylesterase activity in presence of methanol during grape pomace storage

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#### **Abstract**

Methanol is an unwanted component in the production of spirit beverages. Its presence in grape pomace stored until distillation greatly affects the composition of the final product, which requires redistillation, modifying the aromatic characteristics of the distillate. Consequently, reduction of methanol, by controlling its formation during pomace storage, can increase the quality of grappa. The aim of this work was to monitor pectinmethylesterase activity during grape pomace storage, in order to identify its presence related to methanol release. The enzyme activity was detected during various storage times by spectrophotometric and electrophoretic methods. Results show that yeasts do not contribute to PME production. Moreover, by using paranitrophenyl acetate, a specific substrate for esterase, also as PME substrate, we demonstrate the presence of several enzymes hydrolysing ester bonds.