

PROFILE OF MISSOURI NORTON WINE AROMA USING SOLID PHASE  
MICROEXTRACTION OF HEADSPACE, GAS CHROMATOGRAPHY –  
OLFACTOMETRY, MASS SPECTROMETRY

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**ABSTRACT**

Ten Norton wines from across the state of Missouri were analyzed using gas chromatography/mass spectrometry/olfactometry (GC/MS/O) in order to catalog common volatile compounds. Extraction of volatile compounds was performed using headspace solid-phase microextraction (HS-SPME) and identified by a trained panel. The samples were then diluted to determine the most important odor active compounds, resulting in thirty one compounds responsible for the nine most common descriptors of diluted Norton samples. Positive identification was confirmed with Kovat's Retention Indices (RI) using C<sub>5</sub>-C<sub>27</sub> standards. In total 119 volatile compounds were identified, 39 of which had previously reported RI values. This research aims to provide the basis for further investigation into important odorants and characteristic aromas of Norton produced in Missouri.