

The influence of climatic factors on the elemental composition of Feteasca Regala wine from three southern regions [†]

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Abstract: The research targeted the investigation of the aromatic profile for 2019 Feteasca Regala wine resulted from three Romanian traditional vineyards: Samburesti, Corcova and Avincis Dragasani. After the liquid / liquid extraction, 42 aroma compounds were identified and quantified by gas chromatography coupled with mass spectrometry (GC-MS), the obtained results differentiating them based on the area of origin and climatic factors. The higher alcohols varied between 28644.53 µg /L and 33969.27 µg / L, while the esters showed values between 4221.10 µg /L and 7901.25 µg /L. Significant amounts were also observed for fatty acids, between 5310.99 µg /L and 6045.15 µg /L, while lactones showed values starting from 727.39 µg /L and accumulated up to 988.01 µg/L. The most significant results were noticeable in the case of Feteasca Regală wine from Avincis Dragasani, where the climatic indicators were in an optimal ratio, imposing specific quantifiable elements.

Keywords: aroma compounds, climatic indicators, Feteasca Regala wine, GC-MS

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