Comparison between Sangiovese grapes composition and quality of the wine aged in oak barrels obtained with or without early defoliation

Anita Nari, Angela Zinnai, Chiara Sanmartin, Isabella Taglieri, Gianpaolo Andrich, Xiaoguo Ying and Francesca Venturi
University of Pisa, Italy

Leaf removal (defoliation) in the fruiting zone is a canopy management practice which could be applied in vineyard at any time, from fruit set to veraison, to enhance air circulation and light penetration in dense foliage. Grape composition and its technological characteristics, together with the values of the physical and chemical parameters adopted in winemaking, are the most fundamental aspects which can influence on the future of wine sensory quality and composition. To verify the usefulness of early defoliation as a tool to reduce cluster compactness and yield and improve grape composition and wine quality, a research was carried out in a Sangiovese vineyard located in Tuscany. Two different methods for early defoliation, consisting of removal of all leaves from the first 5-7 nodes, was tested close around flowering: manual and pseudo-mechanical. Non-defoliated vines were considered as a control. The effect of the canopy management method adopted on yield, grape composition and sensorial expression of grapes was evaluated following the methods reported in previous works, as well as the evolution of wines obtained by defoliated grapes in the previous two harvest seasons, as a function of aging in oak barrels. Early defoliation, especially the manual one, reduced cluster compactness and yield but increased total phenolic concentration in berries. However, the differences tend to decrease during wine aging.

Biography

Anita Nari is graduated in Food Biosafety and Quality. She is a PhD student (II year) in Agriculture, Food and Environment at the University of Pisa with a research project about producing olive oil with a high nutraceutical and organoleptic quality using innovative operative technique (extraction and storage methods). She is interested in R&D activities, development and validation of analytical methods for food quality of raw materials and products, qualification, characterization and monitoring of food technologies.

anita.nari@agr.unipi.it

Notes: