

INFLUENCE OF *NON-SACCHAROMYCES* YEASTS ON WHITE DRY WINES

Alain POULARD¹, Xenia PASCARI², Boris GAINA³,

Abstract. *It was demonstrated a positive action of the non-Saccharomyces yeasts on the organoleptic properties of wines. Also, their participation in fermentation process did not involve an excessive accumulation of volatile acidity or other taste and aroma defects. The involvement of the non-Saccharomyces yeasts in practical oenology that keeps on recent achievements in oenological biotechnologies allow an increase of aromatic intensity (floral, fruitful etc.) in varietal wines and preserve the varietal identity of obtained wines.*

Keywords: yeasts, *non-Saccharomyces*, *Saccharomyces cerevisiae*, alcoholic fermentation, kinetics of alcoholic fermentation, white dry wines.

Introduction

Yeasts are microscopic fungi that transform naturally the sugar from grapes into ethylic alcohol. These microorganisms have an extremely simplified anatomy. They are the basic agent in wine production because they are responsible of alcoholic fermentation mentioned above. These yeasts are retained by berries skin by the pruine. Their dispersion across plantation is realized by insects, named *Drosophila*, also by the wind etc.

Nowadays, the world market offers to winemakers a wide spectrum of products that ensure a good alcoholic fermentation. The enzymes of selected *Saccharomyces* strains prevalent the fermentation environment and thereby provide a rapid and reliable fermentation, ensuring wines with a constant quality. On the other part, the wines that are produced by mono-seeding are recognized as being less complexes and too “standardized”. However, once in the alcoholic fermentation process the *non-Saccharomyces* yeasts are involved, it can be obtained a positive influence on the organoleptic characteristics of wines. At the same time natural microflora fermentations risk to stop because of the sensibility of these yeasts to the environmental conditions (alcohol, pH and others. From these reasons it is proposed to use a multi-starter culture that contains both strains *Saccharomyces* and *non-Saccharomyces*. This seeding technique

¹ Institut Français de la Vigne et du Vin, Nantes, France

² Technical University of Moldova

³ Academy of Science of Moldova, Honorary member Academy of Romanian Scientists