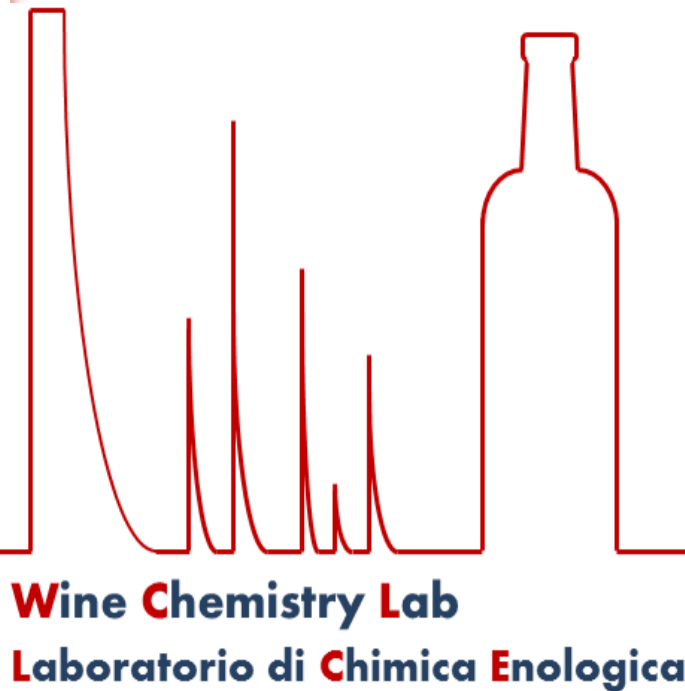


# Comparison between the volatile chemical profile of two different blends for PDO “Valpolicella Superiore”

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## INTRODUCTION

Valpolicella Superiore DOC is a red wine produced exclusively in the geographical area of Valpolicella, located in the province of Verona. Like the others PDO's wines of Valpolicella, also Valpolicella Superiore PDO is a wine obtained from the blend of native grapes of Valpolicella. The variety historically most used for the production of Valpolicella wines is Corvina, which according to regulations, can contribute up to 95% to the final blend. The recent change of the 2019 regulation allows the producers of Valpolicella to use the Corvinone variety for a minimum of 45% to a maximum of 95%, thus equating it to the Corvina variety. In view of a growing interest on the part of the players of the Valpolicella wine industry for the enhancement of Valpolicella Superiore DOC, our study analyzed the chemical and aromatic profile of wines obtained from two different blends, the first blend with a majority Corvina (TD) the second blend with a majority Corvinone (SP) with grapes obtained from 6 different member companies of the Valpolicella Consortium.

## MATERIAL & METHODS

### BLEND

#### TD

70% CORVINA  
30% RONDINELLA

#### C.U. TD

60% CORVINA  
20% CORVINONE  
20% RONDINELLA

#### SP

60% CORVINONE  
20% CORVINA  
20% RONDINELLA

STANDARD WINEMAKING PROTOCOLS



GC-MS FREE SORTING TASK

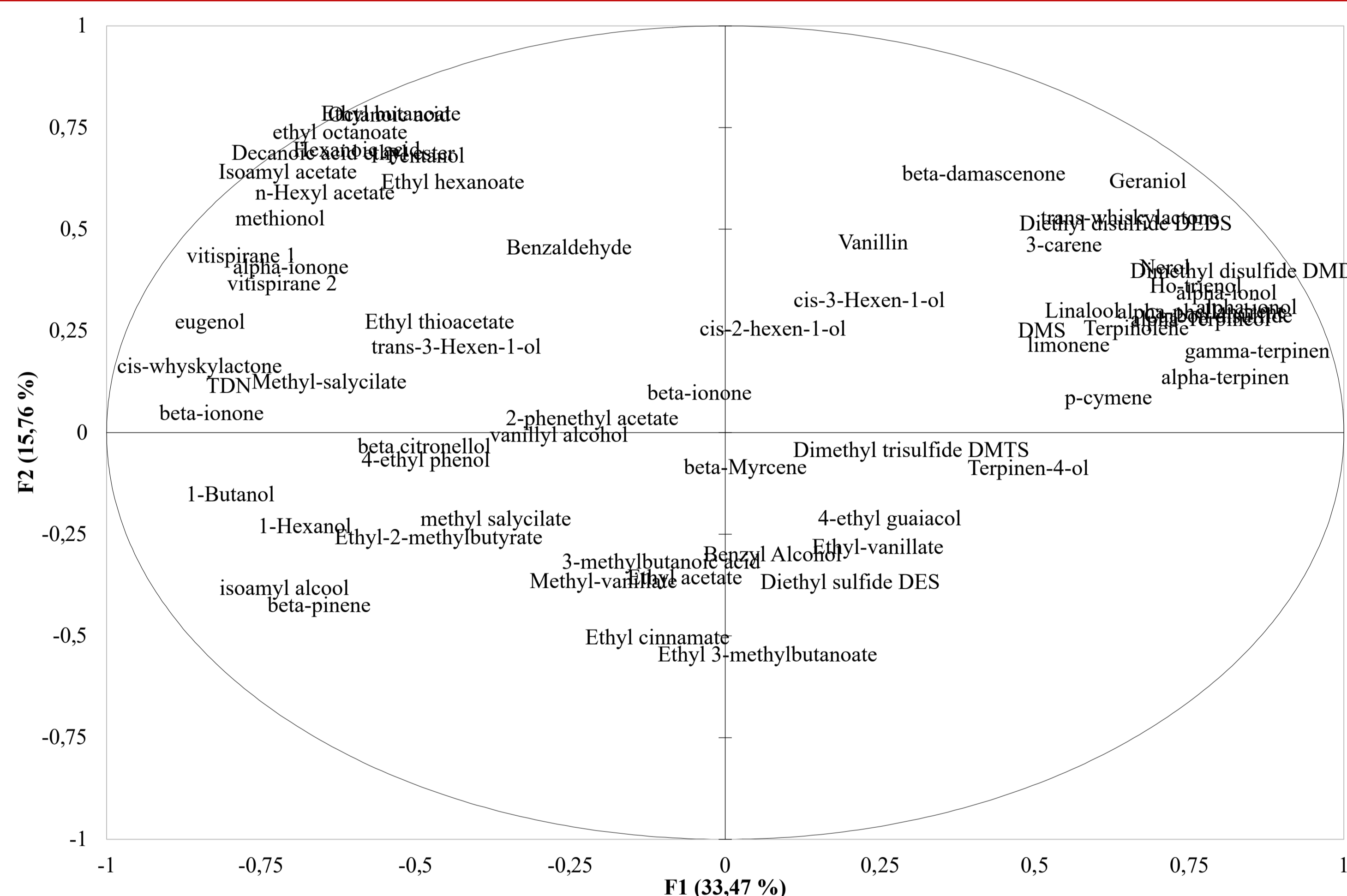
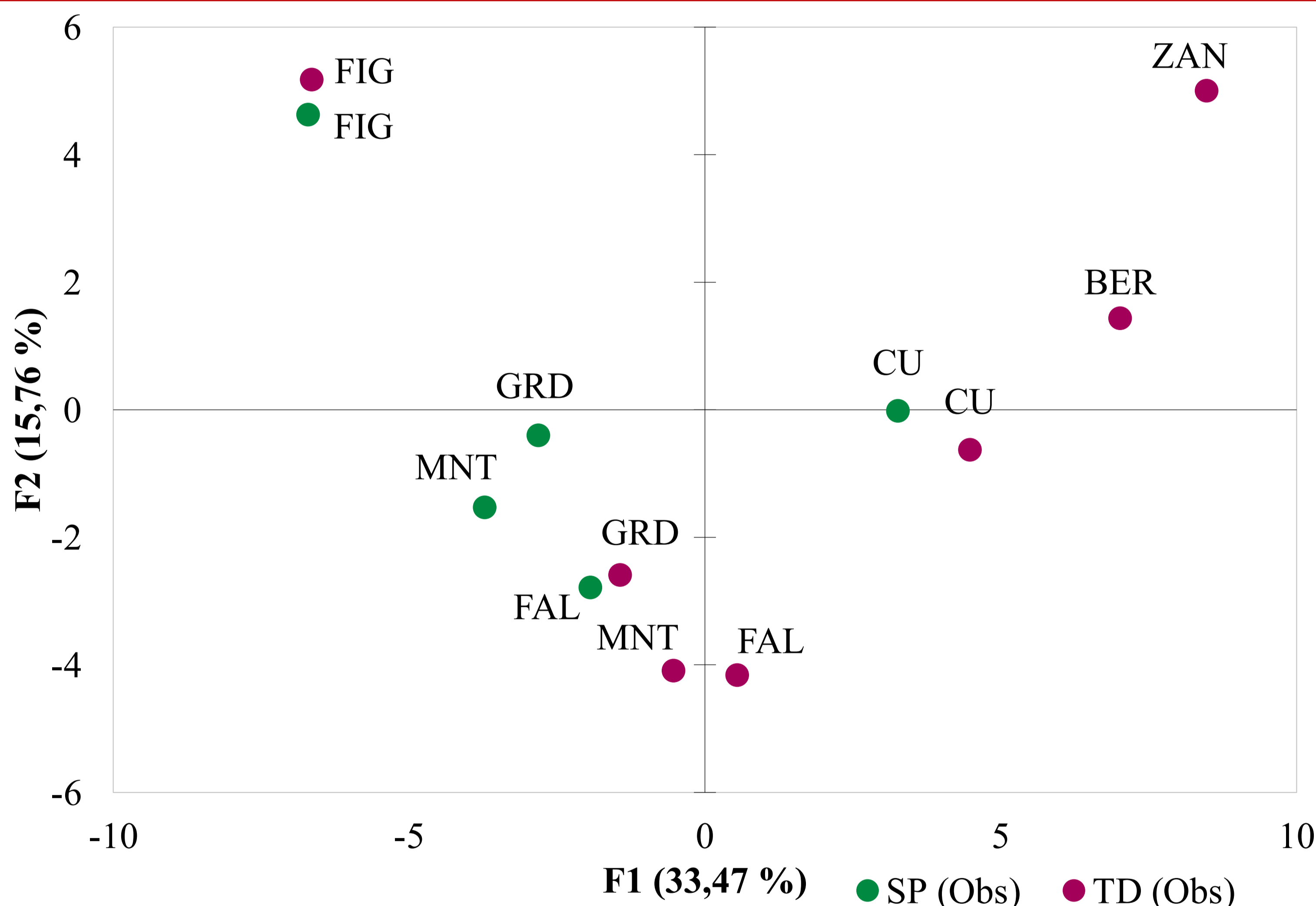


## MUSTS

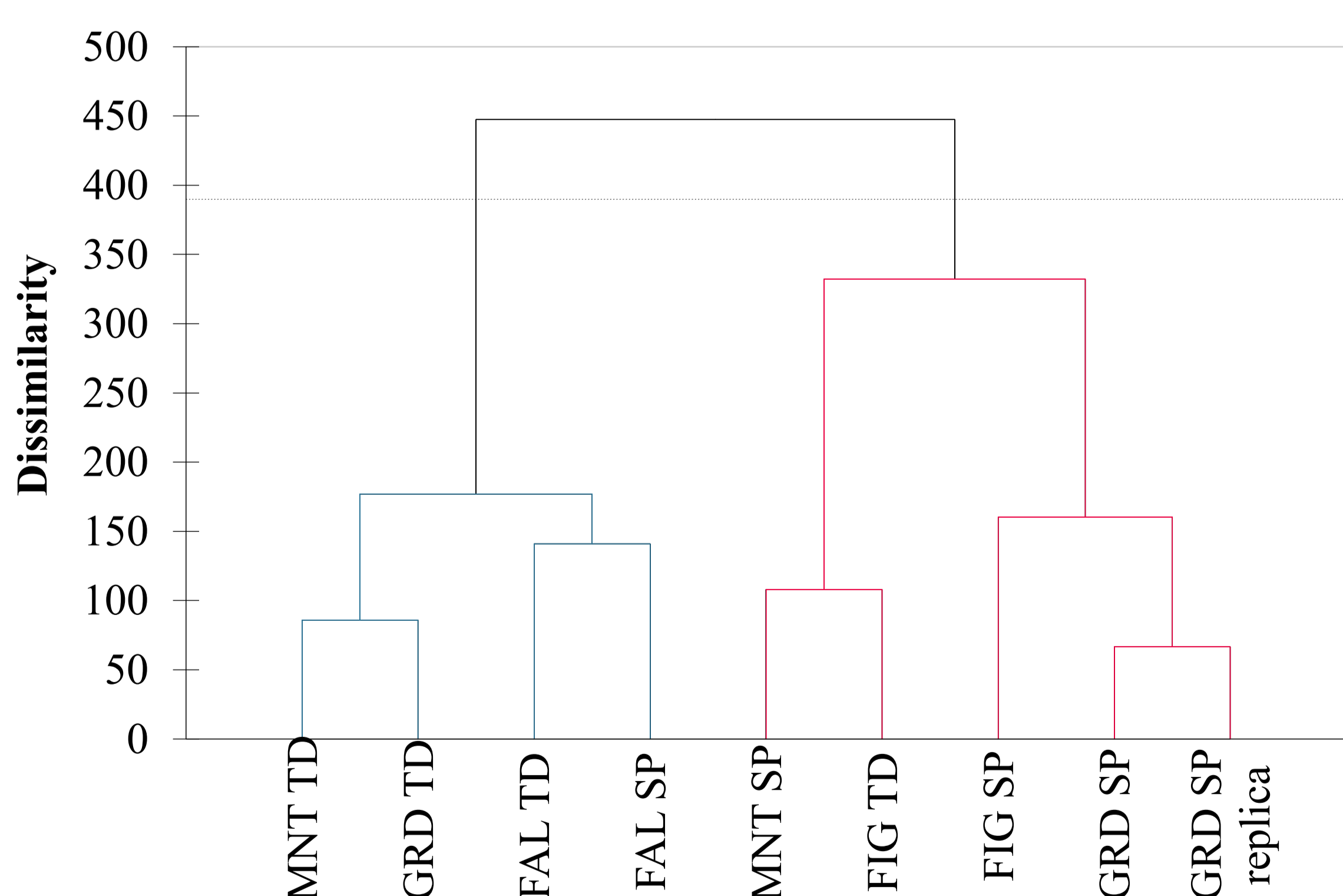
Samples	Glucose + fructose (g/L)		YAN (mg/L)		Duration of fermentation (days)
	mean	sd	mean	sd	
FIG TD	219,64	± 4,76	107,33	± 1,53	14
FIG SP	203,79	± 6,21	133,00	± 6,24	13
MNT TD	223,04	± 4,30	41,00	± 2,65	15
MNT SP	211,50	± 4,76	80,33	± 0,58	15
GRD TD	243,08	± 5,20	32,10	± 9,35	20
GRD SP	231,93	± 3,03	73,03	± 4,42	14
FAL TD	220,10	± 3,76	31,33	± 5,86	28
FAL SP	212,33	± 2,11	45,00	± 1,00	24
CU TD	220,68	± 7,08	124,23	± 3,50	18
CU SP	201,55	± 6,43	136,07	± 2,04	17
BER TD	200,14	± 2,26	86,00	± 2,00	21
ZAN TD	219,09	± 2,03	54,67	± 2,08	23

SP's blend have basically less sugars and more YAN, from which quicker fermentations

## WINES



## FREE SORTING TASK



### Frequency of citation of descriptors (in %)

SAMPLES	OXIDATED	SPICY	VEGETAL	BALSAMIC	FRUITY	FLORAL	REDUCED
FIG TD	14,29	14,29	21,43	14,29	57,14	14,29	0,00
FIG SP	0,00	21,43	50,00	21,43	21,43	7,14	7,14
MNT TD	7,14	14,29	14,29	28,57	28,57	42,86	0,00
MNT SP	7,14	7,14	28,57	14,29	35,71	14,29	0,00
GRD TD	7,14	21,43	14,29	28,57	57,14	14,29	7,14
GRD SP	14,29	28,57	50,00	7,14	17,86	10,71	7,14
FAL TD	0,00	14,29	7,14	35,71	42,86	21,43	7,14
FAL SP	0,00	28,57	42,86	21,43	7,14	28,57	7,14

Within a single origin, traditional blends (TD) are distinguished by a greater incidence of fruity profiles, while experimental blend (SP) for vegetal profiles

## CONCLUSIONS

Corvina-based TD blends showed greater fruit character and higher terpene content. The Corvinone-based SP blends showed greater vegetal character and higher content of norisoprenoids and herbaceous compounds.

The blend has an overall significant effect on the composition of the wines and their aromatic characteristics. However, the winemaker's imprint and the relative origin of the grapes can be defined as equally important.

### BLEND EFFECT

3 out of 4 samples of each group are obtained from the same blend

### WINERY EFFECTS

Two blends of FAL e FIG are clustered together

