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**Influence of different withering conditions on phenolic composition of Avanà, Chatus and Nebbiolo grapes for the production of 'Reinforced' wines**

**This is the author's manuscript**

*Original Citation:*

*Availability:*

This version is available <http://hdl.handle.net/2318/1552601> since 2016-02-03T13:06:14Z

*Published version:*

DOI:10.1016/j.foodchem.2015.08.009

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**Influence of different withering conditions on phenolic composition of Avanà, Chatus  
and Nebbiolo grapes for the production of 'Reinforced' wines**

&DOHD 0 Q úWXU

**Running title Grape withering conditions for the production of 'Reinforced' wines**

## Abstract

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*Keywords:*











### *2.3.3. Extraction and determination of phenolic compounds*

P SDUWLFOHV VXSSOLHG E\ \$OOWHFK 'HHUILHOG

P SDUWLFOHV VXSSOLHG E\ \$OO

#### *2.4. Statistical analysis*

*p*

### **3. Results and discussion**

#### *3.1 Technological ripeness parameters*

### *3.2 Phenolic composition of fresh berries*





### *3.3 Effect of postharvest dehydration on phenolic composition*

#### *3.3.1 Skins*





*p*

### 3.3.2 *Pulps*

UTXHxHxDV

### 3.3.3 *Seeds*

5LYDRQJDORFUL%DDQBYQ

DULQRUQIGHIUR

### *3.4 Evaluation of wines produced with dehydrated berries*



Δ

Δ

*Passito*

## **4. Conclusions**



## References

*Journal of the Science of Food and Agriculture* 84 –

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*Postharvest Biology and Technology* 67 ±

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*Journal of Agricultural and Food Chemistry* 57

±

*Drying Technology* 26 ±

*Vitis vinifera*

*Journal of Agricultural and Food Chemistry* 60 í

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( V F U L Æ Ð Q R y Q

*Analytica Chimica Acta*

660 í

*Italian*

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*European Food Research and Technology* 228 ±

*Journal International des Sciences de la Vigne*

*et du Vin* 43 ±

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*Agricultural and Food Chemistry* 49      í

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*Journal of Agricultural and Food Chemistry*

UTX\$J'XHxDV

DQWKRF\DQLQíIODYDQRO DGGXEWLGYLLOLJHG JUDS

*Food Chemistry* 60      í

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G X U L Q J S R V W K D U Y H V W Z L W K H U

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*Analytica Chimica Acta*

*Vitis vinifera*

*Italian Journal of*

*Food Science* 13 ±

*Australian*

*Journal of Grape and Wine Research*, 19 ±

**Table 1**

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	<i>Sign<sup>a</sup></i>	<i>Sign<sup>b</sup></i>	<i>Sign<sup>a</sup></i>	<i>Sign<sup>b</sup></i>	<i>Sign<sup>a</sup></i>	<i>Sign<sup>b</sup></i>	<i>Sign<sup>c</sup></i>
							<i>fresh</i>

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*p*

*p*  
*p*







**Table 4**

Parameter	Avanà			Chatus			Nebbiolo		
	SW	FW	Sign	SW	FW	Sign	SW	FW	Sign
pH	4.08±0.02	4.12±0.01	ns	3.53±0.01	3.68±0.02	*	4.05±0.02	4.13±0.04	ns
TA (g/L tartaric acid)	4.76±0.11	4.65±0.08	ns	7.13±0.10	8.78±0.16	**	5.29±0.09	5.03±0.13	ns
Citric acid (g/L)	0.10±0.03	0.13±0.01	ns	0.14±0.01	nd	***	nd	0.15±0.02	**
Tartaric acid (g/L)	1.04±0.07	1.15±0.06	ns	1.10±0.03	0.87±0.06	**	0.87±0.09	0.88±0.07	ns
Malic acid (g/L)	nd	nd	ns	2.00±0.09	2.98±0.07	**	0.04±0.03	nd	ns
Glycerol (g/L)	13.91±0.08	14.15±0.10	ns	9.90±0.11	11.20±0.09	***	10.60±0.17	10.34±0.12	ns
Acetic acid (g/L)	1.03±0.03	0.97±0.04	ns	0.50±0.05	0.31±0.08	*	0.68±0.07	0.56±0.05	ns
Ethanol (% v/v)	15.7±0.1	15.8±0.1	ns	16.5±0.0	16.0±0.1	*	15.0±0.2	15.1±0.1	ns
Sugars (g/L)	8.86±0.07	1.55±0.04	***	1.97±0.08	5.25±0.08	***	1.12±0.06	1.20±0.01	ns

*p*