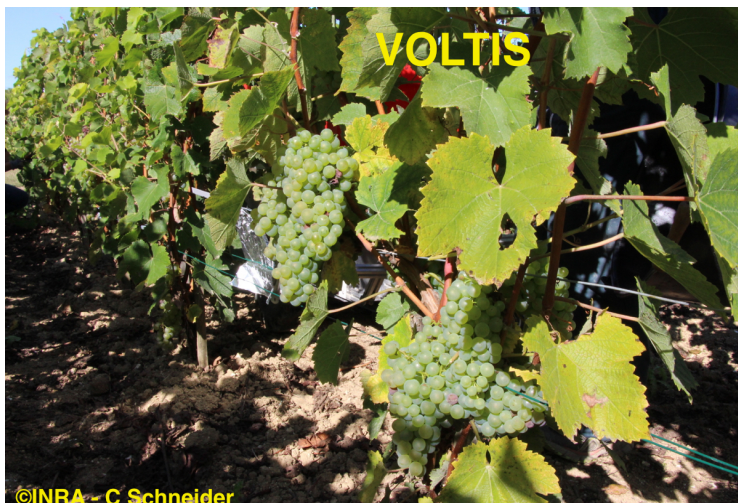


Wine-grape variety from the INRA-ResDur1 series, with polygenic resistance to downy mildew (*Rpv1 + Rpv3*) and powdery mildew (*Run1 + Ren3*)



Origin / Parentage

Voltis = Villaris x Mtp 3159-2-12

Breeder : INRA (France)

Villaris : Variety bred by the JKI Institute at Geilweilerhof, registered in 2011. It bears resistance factors coming from American vines, mainly *V. rupestris* and *V. aestivalis*.

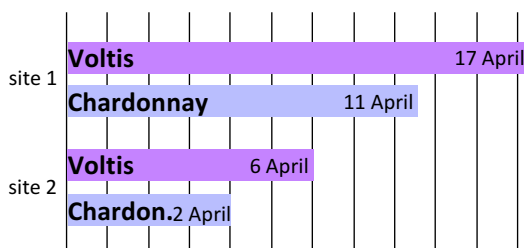
Mtp 3159-2-12 : INRA breeding, bred by A. Bouquet at Montpellier by introgressing the resistance source *V. rotundifolia*.

Voltis was registered in the official Catalogue in January 2018.

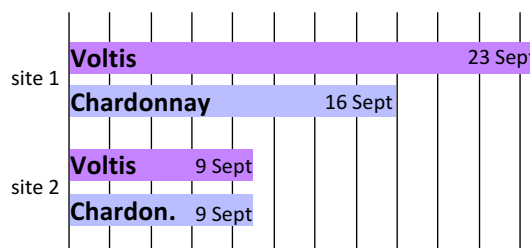
Agronomic traits

Phenology

Bud burst date (average over 3 years)



Harvesting date (average over 3 years)



Bud burst later than Chardonnay. Grape maturity : period II, comparable to the Chardonnay.

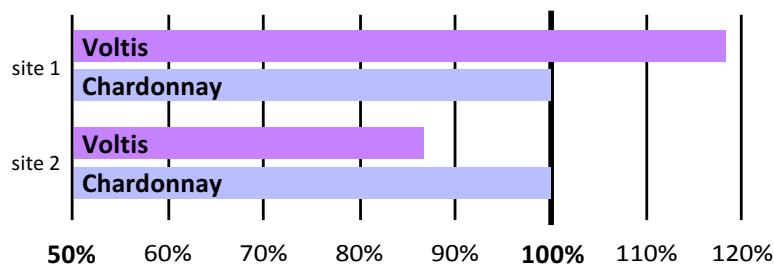
Vigour and production

Vigorous variety, upright growing.

Grape production limited by the low fruitfulness of the base buds (site 2). Favour cane pruning.

Moderate-size berries.

Yield, % of control (average over 3 years)

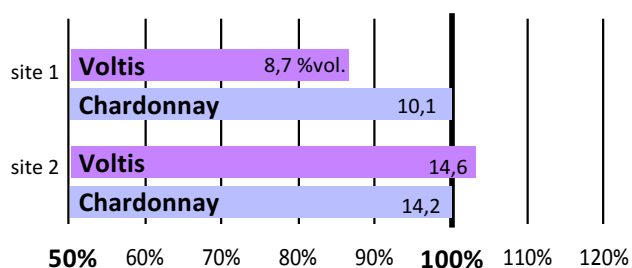


Oenologic traits

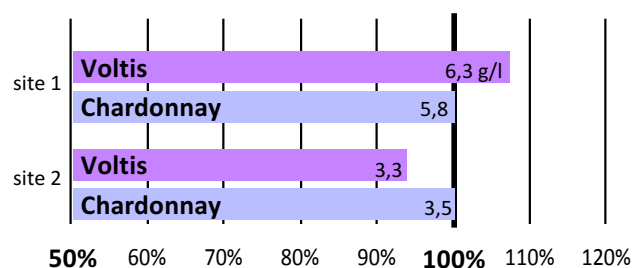
Sugar content and acidity of grapes

The degree of maturity depends strongly on the place and training system : With limited yield (site2), the sugar content and acidity are comparable to the Chardonnay. When the yield is higher (site 1), the sugar content drops and the acidity is slightly higher.

Alcoholic potential (average over 3 years)



Total acidity in sulphuric acid (average over 3 years)



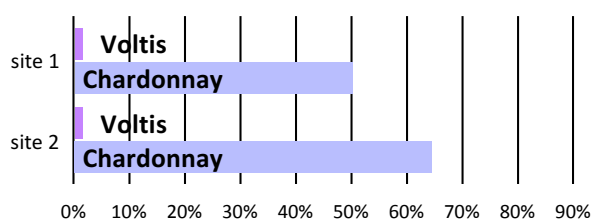
Wine quality

The wines obtained are supple, ample and persistent where grape production is limited. Acidity remains quite strong at low ripening level.

Resistance to fungal diseases

Downy mildew (without phytosanitary protection)

Intensity of damage on foliage
(after veraison, case of strong pressure)



Intensity of damage on cluster

Very rare symptoms on inflorescences or clusters, without impact on the harvest, whereas the control grape varieties are severely impacted.

Powdery mildew

Total resistance, noted on all the sites, even when there is strong pressure.

Black rot

Voltis is sensitive to black rot. Fungicide protection is essential in a risk situation. The current state of knowledge based on a small number of field trials suggest that two treatments around flowering are enough to prevent damage to clusters and harvesting losses.

Potential savings in fungicides

Voltis has polygenic resistance to both downy mildew and powdery mildew. To maintain this resistance, it is highly recommended to apply a reduced number of additional fungicide treatments as well as for the protection against black rot. Savings of around 80% to 90% will be made in fungicides.

Acknowledgements :

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