

WINE GRAPES

Increase in quality parameters
of grapes used
for wine-making

ILSA

TOP

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PLACE

Test location:	Azienda Agricola Casalanguida Donatello, Lanciano (CH)
Person in charge:	D. D'Alessandro, A. Cifarelli, N. Di Nella.
Number of thesis:	2
Type of cultivation:	Open field
Technique of distribution:	Foliar application
Period:	21/05/2021 - 27/09/2021
Variety:	Montepulciano d'Abruzzo
Tested products:	ILSAC-on, ILSA VIVIDA, ILSAMIN CaMg, ILSAGRADER



OBJECTIVE

To evaluate the efficacy of **ILSA** biostimulants and nutrition specialities in enhancing the uniformity of flowering, fruit setting and cluster structure and increase the must quality.

GRAPE VINES

RESULTS ACHIEVED

Foliar applications with IlsaC-on, a biostimulant based on the enzymatic hydrolysate of Fabaceae, from pre-flowering to berry development, first of all promoted the regularisation of the flowering and fruit setting stages, reducing millerandage. The low temperatures in early spring affected the physiological activities of the vineyards throughout the area, so the application of the plant biostimulant reduced the influence of external stresses in the flowering and fruit setting stages.

This, together with subsequent applications, starting from fruits setting and mixed with Ilsamin CaMg, promoted regular cluster development and improved photosynthetic activity, also evident from the colour of the vineyard which, in the part treated with **ILSA** products, was of a darker green colour until pre-harvest.

The more intense photosynthetic activity promoted a greater production of sugars and other secondary metabolites which, thanks also to the applications of IlsaGrader starting from the veraison stage, made it possible to achieve a higher sugar content and an earlier achievement of all the quality parameters necessary for harvesting, a factor not secondary in a year marked by significant delays in ripening for the Montepulciano d'Abruzzo variety. When the clusters were sampled, the greater uniformity of structure and colouring of the clusters and the more advanced state of lignification of the shoots were evident.

TEST PROTOCOL

STAGE	ILSA thesis	Untreated
FOLIAR APPLICATIONS		
2 applications during the pre-flowering stage (21/05/2021 - 03/06/2021)	IlsaC-on: 2 kg/ha IlsaVivida: 2.5 kg/ha	/
3 applications starting from the fruits setting stage (14/06/2021 - 24/06/2021 - 01/07/2021)	IlsaC-on: 1.5 kg/ha Ilsamin CaMg: 2 kg/ha	Calcium and magnesium mineral fertiliser (12% CaO + 4% MgO): 2.5 kg/ha
2 applications from the beginning of the veraison stage (26/07/2021 - 06/08/2021)	IlsaGrader: 2.5 kg/ha	Potassium mineral fertiliser (30% K ₂ O + 30% SO ₃): 2.5 kg/ha

The other treatments, top dressing and plant protection, were similar for both thesis, as per company practice. For both samples, the basal dressing consisted of organic-mineral NPK fertiliser with a high potassium content and with magnesium and sulphur.

Volume of water per hectare per treatment: 800 litres

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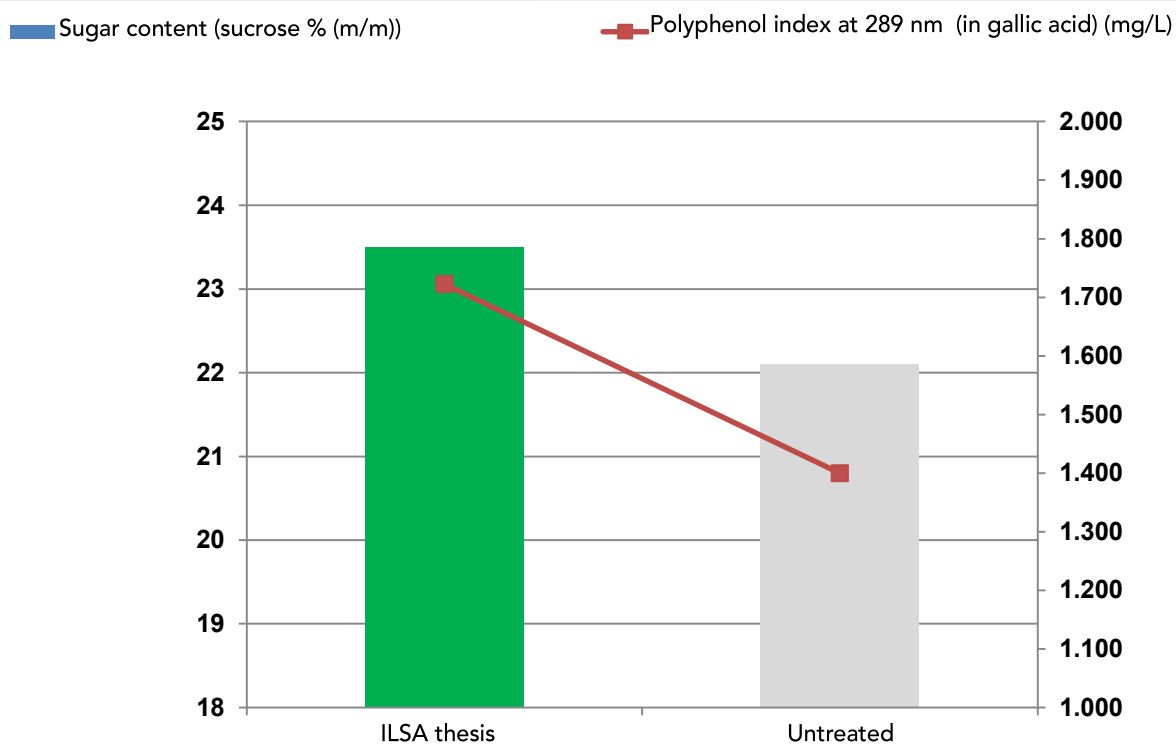
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RESULTS ACHIEVED

Must Analysis Results – 27/09/2021	ILSA thesis	Untreated
Sugar content (sucrose % (m/m))	23.5	22.1
pH	3.27	3.19
Total acidity (g/l tartaric acid)	6.38	6.37
L-Malic acid (g/l)	0.89	1.03
Polyphenol index at 280 nm (in gallic acid) (mg/l)	1723	1400

The analyses were carried out at the C.E.M. (Centro Enologico Meridionale) of Ortona (CH)



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Overview of the Montepulciano d'Abruzzo vineyard of the **ILSA** sample (top photo) and detail of some clusters (bottom photo). Despite the high yield of about 250 quintals per hectare, the use of **ILSA** biostimulants and nutritional specialities made it possible to increase the quality parameters of the grapes, promote regular cluster structure and anticipate ripening, as evident both from the malic acid value and from the level of lignification of the shoots.

