WINE GRAPES

Increased grapes firmness

ILSA TEC

PLACE

Test location:	Edmund Mach Foundation, San Michele all'Adige (TN)
Person in charge:	D. Porro, M. Magnano, A. Tedesco
Number of thesis:	2
Type of cultivation:	Open field
Technique of distribution:	Foliar application
Period:	08/07/2021 – 15/09/2021
Variety:	Nosiola
Tested products:	ILSAC-on, SILIFORCE

QUALITY APPROVATO CONTROL

OBJECTIVE

To evaluate the efficacy of the biostimulant IlsaC-on, mixed with Siliforce, on the increase in grapes firmness.

GRAPE VINES

RESULTS ACHIEVED

IlsaC-on, a biostimulant based on the enzymatic hydrolysate of Fabaceae, and Siliforce, based on ortho-silicic acid, were applied by foliar application on Nosiola varieties, in order to increase the thickness and hardness of the grapes' epidermis, thus improving their firmness. One of the characteristics of this variety is in fact the very thin epidermis of the grapes which, as a consequence, are generally subject to damage and fungal attacks. The two biostimulants were selected by virtue of their complementary effect: IlsaC-on increases the thickness of the epidermis and the firmness of the pulp, while Siliforce "physically" improves the structure of the epidermis making it mechanically more compact and therefore less susceptible to cracking.
The results obtained at the time of harvesting confirmed the ILSA's thesis, since the epidermis of the grapes treated with the two biostimulants was found to be thicker and harder. The marked increase in the firmness of the grapes made it possible to harvest grapes that were much more intact and less prone to cracking and rotting, an important factor to maintain the high quality of the must to be vinified.

TEST PROTOCOL

STAGE	ILSA thesis	Untreated
FOLIAR APPLICATIONS		
Fruits setting (08/07/2021)	**IlsaC-on:** 2 kg/ha **Siliforce:** 0.3 kg/ha	/
15/07/2021	**IlsaC-on:** 2 kg/ha **Siliforce:** 0.3 kg/ha	/
21/07/2021	**IlsaC-on:** 2 kg/ha **Siliforce:** 0.3 kg/ha	/
29/07/2021	**IlsaC-on:** 2 kg/ha **Siliforce:** 0.3 kg/ha	/

The other treatments, top dressing and plant protection, were similar for both thesis, as per company practice.

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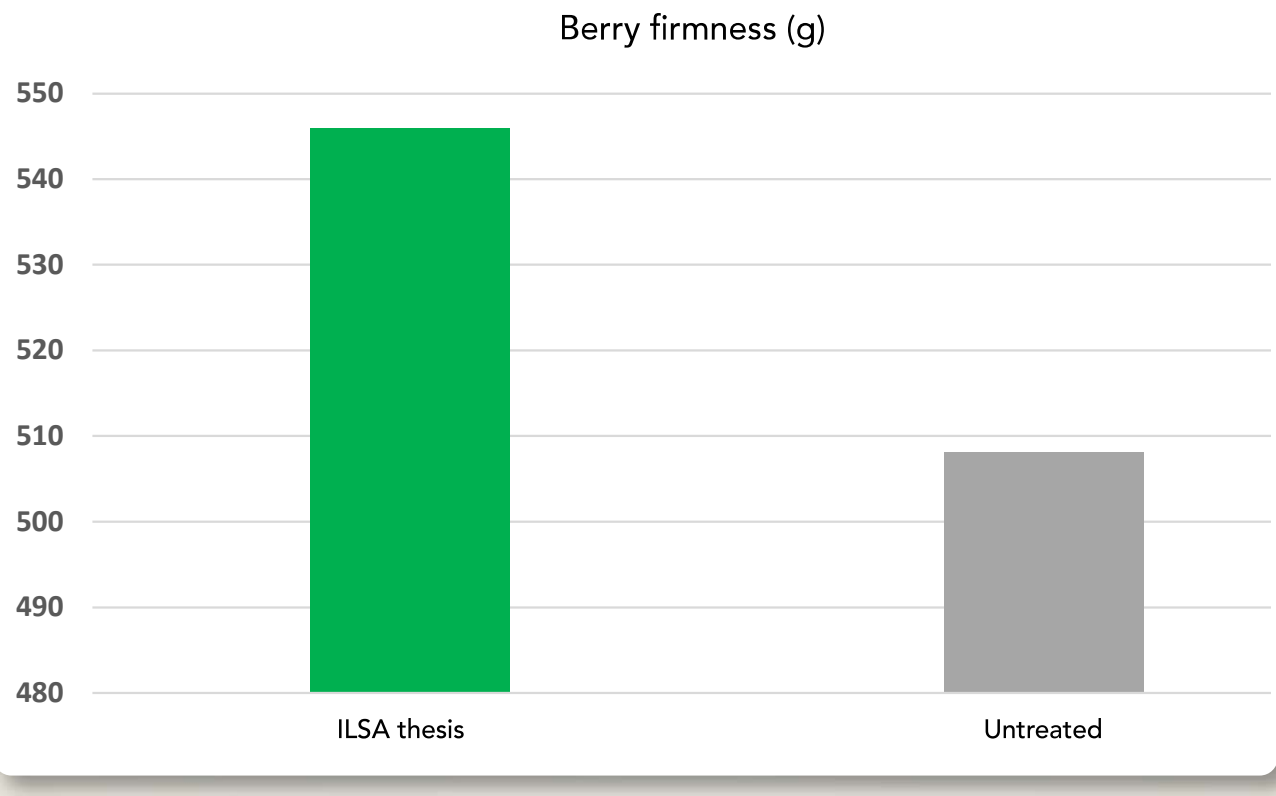
RESULTS ACHIEVED

Analysis carried out on 15/09/2021 on a total of 120 berries	ILSA thesis	Untreated
Grapefirmness (g)	**545.9 a**	508.1 b
Epidermis in tutto il docuemnto da sost. hardness (Newton)	**0.367 a**	0.329 b
Epidermis in tutto il docuemnto da sost. thickness (µm)	**125.6**	124.1
Incidence of rotting (%)	**9.44**	11.35



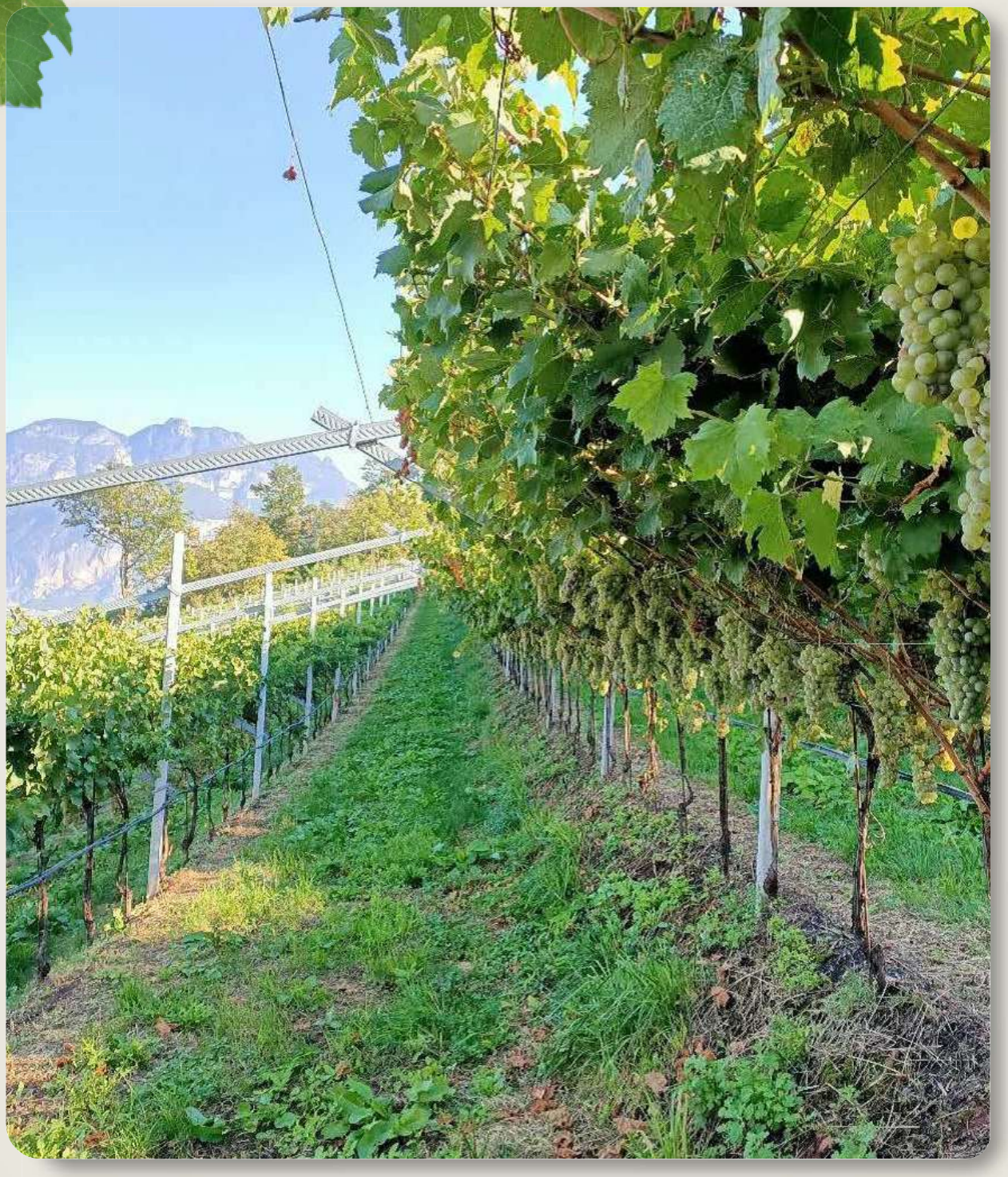


Photo of the vineyard during the survey on 15 September 2021. As can be seen in the picture, the clusters of the **ILSA** thesis were found to have a regular shape and excellent grape integrity, which is often a limiting factor for the Nosiola variety. This significantly reduced the incidence of botrytis and other rotting. Both biostimulants are also allowed in organic farming.

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