

Vitazyme Research

- improving colour in grapes

Some grape varieties are difficult to colour up.

Research undertaken by Syngenta in Chile with Crimson Seedless, Red Globe and other varieties has demonstrated Vitazyme helps colour up grapes. Similar results have been achieved in Australia.

The Independent Research behind why Vitazyme improves ripening

Vitazyme contains multiple active agents that are active at low concentrations, including **Brassinosteroids (BR's)**. BR's are a group of steroidal plant hormones that are necessary for normal plant development (Davies, 2004) whose bioactive levels rise dramatically as grape berry ripening begins (Symons, 2006). **Symons found application of BR's to grape berries promoted ripening**, whereas applying an inhibitor of BR biosynthesis delayed this process. Change in BR levels strongly influence ripening and grape colour.

Two Programs to assist Grape Colour

Program 1: 1L/ha, 3 times

At post flowering, pre-veraison and veraison

Program 2 : 1.5L/ha, 2 times

2 weeks prior to veraison and post veraison (14 - 28 days pre-harvest)



Vitazyme

Australian Demonstration

Jan 12 - Vitazyme treated Shiraz grapes show improved colour



Untreated

References

- Davies, C et al, Hormonal control of grape berry ripening,
- Symons, G et al, Grape berry ripening. Plant Physiology, 2006: 140; 150 - 158.

Chilean Research Crimson Seedless colour

Grape Variety: Crimson Seedless

Experimental Design: A vineyard of Crimson Seedless grapes was divided into a control and 2 Vitazyme treatments. The objective of the study was to evaluate Vitazyme's effects on fruit maturity, fruit yield and grape colour at harvest.

Fertiliser: Unknown

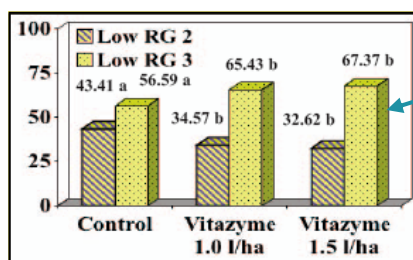
Vitazyme: Either 1.0 or 1.5L/ha for the two Vitazyme treatments before veraison, and again after veraison.

Results:

Colour - Fruit colour was determined at harvest and analysed statistically. Both Vitazyme treatments improved the development of red colour for these Crimson Seedless grapes, increasing the full RG3 values significantly above the control, and reducing the low RG2 levels below the control. Best result 1.5L/ha

Harvest Date- Vitazyme treatments harvested earlier - best result 1.5L/ha

Yield - Improved yields with Vitazyme in both treatments with best results at 1.5L/ha

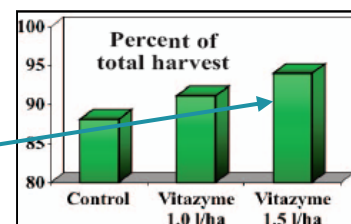


Improvement in colour
- 10.78% full RG3

Treatment	Harvest date			Total
	March 19	March 24	April 8	
1. Control	70.6	8.1	9.4	88.1
2. Vitazyme, 1.0 liter/ha	75.1	4.9	11.1	91.1
3. Vitazyme, 1.5 liters/ha	82.1	7.4	4.5	94.0

Early harvest
11.5% harvested earlier

Higher Yield
7% for 1.5L/ha



Vitazyme works because its ingredients work ... read on for more data ...

Brassinosteroids in Vitazyme

... improving ripening and grape colour

Studies in the field showing improved colouring with Vitazyme

Research by Syngenta in Chile comparing Vitazyme and Ethrel

Grape Variety: Crimson Seedless

Sprayer Rate: 1,000L/ha (nebulizer sprayer)

Experimental Design: A vineyard of Crimson Seedless grapes was divided into a Vitazyme treated area as well as an Ethrel treated control. The purpose of the study was to evaluate the effects of the product on grape yield, maturity, advancement of coloration for the crop and grape quality parameters versus control.

Fertiliser: As recommended

Control: Ethrel application as recommended

Vitazyme: 2L/ha applied 15 days before veraison, and 2L/ha applied at veraison.

Results:

Colour - the colour of the Vitazyme treated berries was more homogenous within the clusters than Ethrel, and there were fewer green berries.

Yield - Vitazyme produced 21% more boxes than Ethrel control.

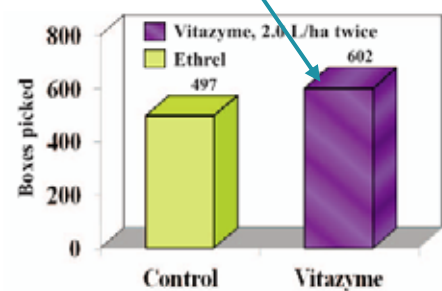
Grape Sugar - Both has same brix level, despite increased yield of Vitazyme

Major differences - the major differences between treatments was most marked 15 days before harvest



Advanced Colouration with Vitazyme

21% increase in grape yield



Research by Syngenta in Chile comparing Fruit colour of Red Globe

Grape Variety: Red Globe

Sprayer Rate: ESS sprayer at 70L/ha

Experimental Design: A vineyard of Red Globe grapes was divided into Vitazyme and Control treatments to evaluate the effects of Vitazyme on fruit colouration development, to enhance the harvest for exportation.

Fertiliser: As recommended

Vitazyme: 4L/ha at first colouration on Jan 27,2011.

Results:

The Vitazyme treatment was harvested on Feb 24 and 28,2011 while the control was harvested on March 2 and 14.

Vitazyme enhanced the colouration significantly so the farmer could advance the harvest by six days and fetch a higher export market price.

Vitazyme enhanced colouration by 6 days resulting in higher prices.



Vitazyme will also help with

- Heat stress
- Evenness at bud burst
- Improved crop health
- Improved quality



In this New York Vineyard, Vitazyme improved : berries per cluster, cluster weight and fruit yield for Pinot Noir and Reising grapes.

*We have a lot more research, so call us for more information.
Try Vitazyme now and see the results for yourself.*