



FIELD TRIAL—DOLOMITE PLUS

Crop: Table grapes

Location: Robinvale, Victoria.

Application Method: Low level sprinklers

Application Rate: 2 x 37.5 Litres per hectare

Main Benefits

Element	21/03/2012	3/05/2012
Ph (CaCl ₂)	4.6	6.2
CEC	3.11	6.13
Chloride (ppm)	25	12
Ca %	46.3	67.5
Al %	15.8	2
CaMg Ratio	3.1	4.1

Ultimate Agri-Products would like to thank Mr Mark Nish of Elders Robinvale for conducting this trial in a professional manner.

Should anyone have questions relating to this trial, Mark Nish can be contacted on 0408 003 701 or contact Ultimate on 1800 003 244.



Analysis Results (SOIL)

Customer

ROBINVALE

Distributor

ELDERS - ROBINVALE
MOORE ST
ROBINVALE
VIC
3549

Sample Ref

THOMPSON TOP AREA

Date Received

21/03/2012 (Date Sampled: 20/03/2012)

Sample No

Crop

GRAPES (TABLE)

Analysis	Result	Guideline	Interpretation	Comments
pH [1:5 H ₂ O]*	5.1	6.0 - 7.4	Low	Ideal range = 6.0 - 7.4. Low pH can limit the availability of potassium, calcium, magnesium and molybdenum. Consider appropriate lime applications to raise the pH to a more suitable level.
pH [1:5 CaCl ₂]	4.6	5.4 - 7	Low	Ideal range = 5.4 - 7.0. Low pH can limit the availability of potassium, calcium, magnesium and molybdenum. Consider appropriate lime applications to raise the pH to a more suitable level.
Organic Matter* (%)	0.8	3.0 - 8	Very Low	Ideal range = 3 - 8%. Low organic matter has effects on CEC, moisture retention and soil structure as well as reducing potential nitrogen release. Incorporate organic matter where appropriate.
CEC (meq/100g)	3.11	12.00 - 40	Very Low	Ideal range = 12 - 40 meq/100g. Indicates a soil with poor nutrient holding capacity. Regular (annual) fertilizer applications will help reduce leaching. Addition of organic matter will help.
EC [1:5 H ₂ O]* (dS/m)	0.06	0.90 - 1.5	Very Low	Ideal range = 0.9 - 1.5. No problems of salinity expected with this soil.
NO ₃ -N* (ppm)	3.0	30.0 - 70	Low	Low level indicates possible leaching of nitrate-nitrogen. If soil sampled at around 15cm, consider deeper sampling to ascertain subsoil nitrogen level.
Phosphorus [Olsen]* (ppm)	86	15 - 80	High	Level recorded is high and may interfere with uptake of iron, copper and zinc.
Potassium[Am. Acet.]* (meq/100g)	0.63	0.70 - 1.7	Slightly Low	Slightly low level of potassium is recorded.
Calcium[Am. Acet.]* (meq/100g)	1.44	6.00 - 15	Low	Low level of calcium is recorded. Calcium is essential for normal crop development and plays an important role in ensuring quality and storability of fruit crops.
Magnesium[Am. Acet.]* (meq/100g)	0.46	1.50 - 4.5	Low	Low level of magnesium is recorded. Magnesium is an essential part of chlorophyll and deficiency severely affects crop development and performance. Most common symptom is yellowing between veins starting on the older leaves.
Sulphur [MCP] (ppm)	6	8 - 20	Slightly Low	Slightly low level of sulphur recorded. Sulphur is essential for normal crop development. Deficiency affects photosynthesis and reduces yield and quality of production.
Boron[CaCl ₂]* (ppm)	< 0.1	1.0 - 2	Very Low	Very low level of boron recorded. Boron is essential for normal crop development. Deficiency most often affects growing points causing stunting or mis-shapen plants. Flowering and pollination are commonly reduced.
Copper [DTPA] (ppm)	2.3	0.5 - 10	Normal	Level of copper recorded is in the normal range.



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Date Printed : 11/07/2012



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MOORE ST
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Sample Ref

SON TOP AREA

Date Received 21/03/2012 (Date Sampled: 20/03/2012)

Sample No

Crop

GRAPES (TABLE)

Analysis	Result	Guideline	Interpretation	Comments
Iron [DTPA]* (ppm)	23	5 - 100	Normal	Level of iron recorded is in the normal range.
Manganese [DTPA] (ppm)	7.1	4.0 - 60	Normal	Level of manganese recorded is in the normal range.
Zinc [DTPA] (ppm)	1.2	2.0 - 15	Low	Low level of zinc recorded. Zinc is essential for normal crop development and often results in stunted crops with small leaves.
Sodium[Am. Acet.]* (meq/100g)	0.1	0.3 - 3	Very Low	No problem.Low levels are desirable.
Aluminium[KCl] (meq/100g)	0.49	1.00 - 4	Slightly Low	No problem.Low levels are desirable.
Chloride* (ppm)	25	200 - 1100	Very Low	No problem.Low levels are desirable.
Ca base saturation (%)	46.3	60.0 - 75	Slightly Low	Calcium base saturation is slightly low (desired range is 60-75%). Check base saturations for K, Mg & Na.
K base saturation (%)	20.3	5.0 - 7	High	Potassium base saturation is high (desired range is 5-7%). Check base saturations for Ca, Mg & Na.
Mg base saturation (%)	14.8	15.0 - 20	Slightly Low	Magnesium base saturation is slightly low (desired range is 15-20%). Check base saturations for K, Ca & Na.
Na base saturation (%)	2.9	1.0 - 2	High	Sodium base saturation is high (desired range is 1-2%). Check base saturations for K, Mg & Ca and consider application of Ca to rectify Na base saturation.
Al base saturation (%)	15.80			
Ca:Mg Ratio	3.1	2.5 - 5	Normal	Ca/Mg ratio provided for reference only. Normal level indicates minimal need for gypsum addition.
Aluminium (ppm)	44.0			
Sodium (ppm)	21.0			
Calcium (ppm)	288.0			
Magnesium (ppm)	56.0			
Potassium (ppm)	246.0			



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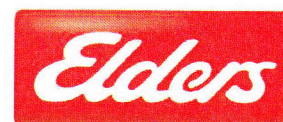
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Analysis Results (SOIL)

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MOORE ST
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Sample Ref

A(THOMPSON)

Date Received 03/05/2012 (Date Sampled: 02/05/2012)

Sample No

Crop

GRAPES (TABLE)

Analysis	Result	Guideline	Interpretation	Comments
pH [1:5 H ₂ O]*	6.6	6.0 - 7.4	Normal	Ideal range = 6.0 - 7.4. pH is in the normal range.
pH [1:5 CaCl ₂]	6.2	5.4 - 7	Normal	Ideal range = 5.4 - 7.0. pH is in the normal range.
Organic Matter* (%)	< 0.5	3.0 - 8	Very Low	Ideal range = 3 - 8%. Low organic matter has effects on CEC, moisture retention and soil structure as well as reducing potential nitrogen release. Incorporate organic matter where appropriate.
CEC (meq/100g)	6.13	12.00 - 40	Low	Ideal range = 12 - 40 meq/100g. Indicates a soil with poor nutrient holding capacity. Regular (annual) fertilizer applications will help reduce leaching. Addition of organic matter will help.
EC [1:5 H ₂ O]* (dS/m)	0.08	0.90 - 1.5	Very Low	Ideal range = 0.9 - 1.5. No problems of salinity expected with this soil.
NO ₃ -N* (ppm)	5.7	30.0 - 70	Low	Low level indicates possible leaching of nitrate-nitrogen. If soil sampled at around 15cm, consider deeper sampling to ascertain subsoil nitrogen level.
Phosphorus [Olsen]* (ppm)	70	15 - 80	Normal	Normal level of phosphorus is recorded.
Potassium[Am. Acet.]* (meq/100g)	0.72	0.70 - 1.7	Normal	Normal level of potassium is recorded.
Calcium[Am. Acet.]* (meq/100g)	4.14	6.00 - 15	Slightly Low	Slightly low level of calcium is recorded. Calcium is essential for normal crop development and plays an important role in ensuring quality and storability of fruit crops.
Magnesium[Am. Acet.]* (meq/100g)	1.02	1.50 - 4.5	Slightly Low	Slightly low level of magnesium is recorded. Magnesium is an essential part of chlorophyll and deficiency severely affects crop development and performance. Most common symptom is yellowing between veins starting on the older leaves.
Sulphur [MCP] (ppm)	5	8 - 20	Slightly Low	Slightly low level of sulphur recorded. Sulphur is essential for normal crop development. Deficiency affects photosynthesis and reduces yield and quality of production.
Boron[CaCl ₂]* (ppm)	0.5	1.0 - 2	Low	Low level of boron recorded. Boron is essential for normal crop development. Deficiency most often affects growing points causing stunting or mis-shapen plants. Flowering and pollination are commonly reduced.
Copper [DTPA] (ppm)	3.4	0.5 - 10	Normal	Level of copper recorded is in the normal range.
Iron [DTPA]* (ppm)	23	5 - 100	Normal	Level of iron recorded is in the normal range.
Manganese [DTPA] (ppm)	9.0	4.0 - 60	Normal	Level of manganese recorded is in the normal range.



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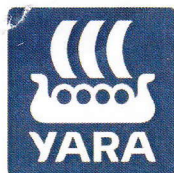
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Sample Ref

AREA(THOMPSON)

Date Received

03/05/2012 (Date Sampled: 02/05/2012)

Sample No

Crop

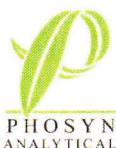
GRAPES (TABLE)

Analysis	Result	Guideline	Interpretation	Comments
Zinc [DTPA] (ppm)	1.3	2.0 - 15	Low	Low level of zinc recorded. Zinc is essential for normal crop development and often results in stunted crops with small leaves.
Sodium[Am. Acet.]* (meq/100g)	0.1	0.3 - 3	Low	No problem.Low levels are desirable.
Aluminium[KCl] (meq/100g)	0.12	1.00 - 4	Low	No problem.Low levels are desirable.
Chloride* (ppm)	12	200 - 1100	Very Low	No problem.Low levels are desirable.
Ca base saturation (%)	67.5	60.0 - 75	Normal	Calcium base saturation is in desirable range (60-75%).
K base saturation (%)	11.7	5.0 - 7	High	Potassium base saturation is high (desired range is 5-7%). Check base saturations for Ca, Mg & Na.
Mg base saturation (%)	16.6	15.0 - 20	Normal	Magnesium base saturation is in desirable range (15-20%).
Na base saturation (%)	2.1	1.0 - 2	High	Sodium base saturation is high (desired range is 1-2%). Check base saturations for K, Mg & Ca and consider application of Ca to rectify Na base saturation.
Al base saturation (%)	2.00			
Ca:Mg Ratio	4.1	2.5 - 5	Normal	Ca/Mg ratio provided for reference only. Normal level indicates minimal need for gypsum addition.
Aluminium (ppm)	11.0			
Sodium (ppm)	30.0			
Calcium (ppm)	828.0			
Magnesium (ppm)	123.0			
Potassium (ppm)	282.0			

These interpretations and recommendations given here are a guide, and their efficacy depends upon proper and representative samples being analysed and environmental and managerial factors outside the control of Elders Limited (Elders). Whilst Elders makes these interpretations and recommendations in good faith, taking all due care, Elders does not accept any liability whatsoever arising out of these interpretations and recommendations for any damage loss or injury of any nature (including that caused by Elders negligence), except to the extent that such liability cannot be excluded by law, in which case Elders liability is limited to the resupply (at no cost to the user) of Elders services. The user expressly acknowledges that it will hold Elders harmless from any failure of a recommended product to perform to the user's expectations. Any product enquiries etc will be referred back to the manufacturer under the limit of their liability and warranty terms. These interpretations and recommendations may only be relied upon by the party to whom this report is addressed.

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