



Apata™ TOGETHER WE'RE BETTER
AVOCADOS

FIELD DAY

WHERE: 40 Timon Drive

KATIKATI

WHEN: Thursday 26 May 2016

TIME: 1.30pm

TOPICS:

- Leaf & Soil Sampling
- Leaf & Soil Analysis and fertilizer programmes
- Mark Jenkins from Pacific Hort
- Jerome Hardy - Consultant
- **HASS** - Presented by Kate Trufitt
- **AVOCO** - Final Returns and what can you expect in the big season coming

APATA FIELD DAY MARCH 2016

JEROME HARDY (027) 2334380

Avocado Nutrition and Soil and Leaf Testing

The importance of fertilising avocados in NZ: A program of appropriate fertiliser inputs is one of the top 5 non-negotiable management tasks essential to the productive NZ orchard.

Crop Removal Data

Element	Nutrients removed by a 10t/ha crop	Fruit as % of total tree composition
N	11.3 kg/ha	5.5%
P	1.7 kg/ha	6.1%
K	19.5 kg/ha	8.1%
Mg	5 kg/ha	3.0%

From: The Avocado: Botany, Production and Uses

Nitrophoska Extra has an NPK analysis of 12:5.2:14 plus 1.2% Magnesium

Taking potassium (K) for example: If you produce 20t/ha then -to allow for crop removal alone- you would need to apply 39kg of K, which corresponds to 278.5kg of Nitrophoska Extra (because it includes 14% K).

Then add nutritional requirement of leaves, trunk/branches, roots AND allow for leaching losses...

A new/young tree prior to commercial production only needs a regular (monthly), small application of compound NPK fertiliser. As the trees become commercially productive, nutritional inputs need to be increased and planned more carefully with emphasis on different nutrients at different times of the season.

A successful nutrition program will maximise yield and help regulate bearing bearing.

A quick summary of the key nutrients:

Nitrogen: Is the most important mineral nutrient for growth and development and defined by Prof Wolstenholme as the 'manipulator' element. Important for winter cold-tolerance. Easily lost through leaching. Should be applied as both nitrate (more readily absorbed by the plant) and ammonium (less easily leached). *Essential input*

Phosphorous: Essential for healthy metabolism and root development. The avocado root is an effective 'forager' for P and deficiency is not considered a risk to yield. Apply P if Olsen P levels below 30mg/L.

Potassium: Essential for growth and fruit development. Easily lost through leaching. *Essential input*

Boron: Essential for successful pollination, growth. *Essential input*

Zinc: Essential for fruit development, photosynthesis. Mild deficiency seen occasionally in NZ leaf tests but I have never seen zinc deficiency in NZ like we can see it in SA.

Calcium: Essential for good cellular structure, root health, fruit quality. Helps to suppress *Phytophthora* in the soil and gypsum is regularly applied on heavier soils to improve soil structure.

Magnesium: Essential for photosynthesis. *Essential input*

Sulphur, Iron, Manganese: Important for plant health. Manganese deficiency seen occasionally in NZ.

Growth: There are important growth flushes that (like us) require energy, minerals and water. Energy is supplied in the form of carbohydrates (produced by the leaves and also stored in months of net gain). Minerals are taken up with water from the soil solution.

Growth flushes occur at various times of the year and diminished nutrient supply will affect the quality of those growth flushes:

October to November: **Floral expansion**

October to March: **Leaf flush**

January to June: **Fruit sizing**

March to May: **Root flush** (continues at low levels through winter)

So pretty much year-round except the winter (still have low levels of root flush).

Especially...

Sizing of fruit: Yes the fruit is mineral rich and a portion of nutritional inputs (especially K) will go to the fruit BUT the primary driver of fruit size is photosynthate supply. Photosynthates are 'energy' or carbohydrate products of photosynthesis that is occurring when leaves intercept light. The foremost strategy to size fruit is to have a strong leaf canopy so when you fertilise with N, K, Mg you are first providing the mineral resource for the leaf factory.

And

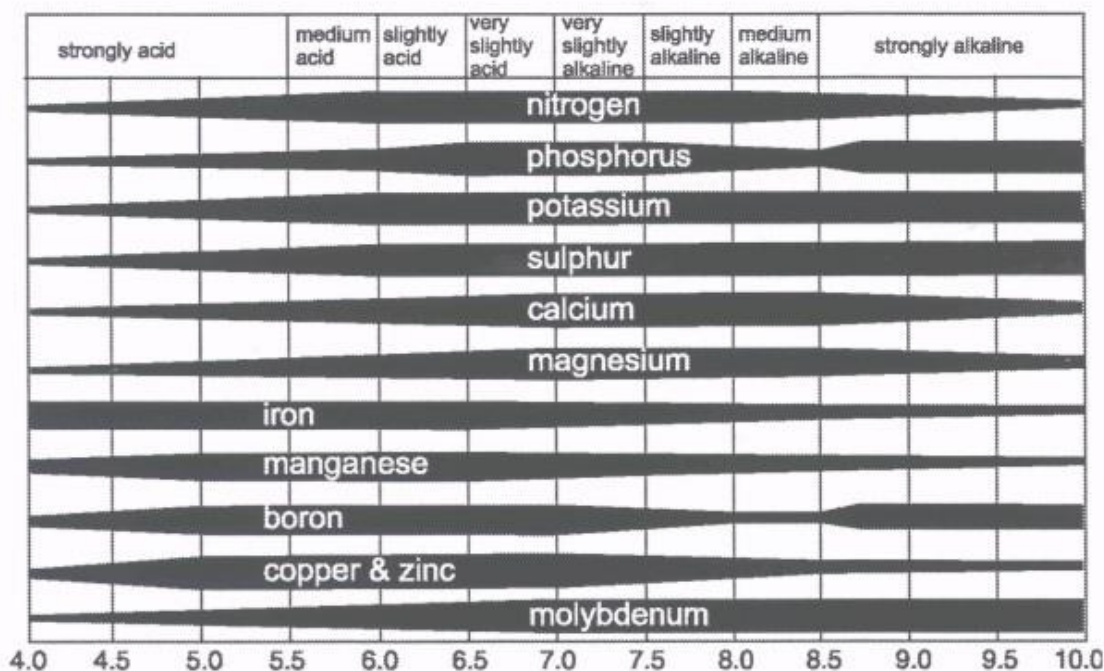
Spring flush is key to the NZ avocado grower for 2 reasons. **Reason 1**: An adequate spring flush will provide mature productive leaves at a time when sizing fruit are depleting our tree photosynthate reserves and they need topping up (January onward). **More important Reason 2**: Spring flush will be your most effective flowering wood 12 months later. So when you are setting a fertiliser program you are aiming to supply up to two thirds of your N-inputs from September to December (especially if heavy flowering).

Keep it simple. Avocado nutrition is not complex. Our objective is to meet the trees' nutritional needs to produce a maximum sustainable crop, applying small quantities regularly to minimise losses through leaching.

Soil and leaf analyses in NZ

1. A soil test helps us correct the 'fundamentals (pH, Olsen P, Ca, K, Mg).
2. A quick course in soil chemistry: pH, CEC and Base Saturation:
 - a. Our base soil nutrients are all positively charged ions = cations which are held/attracted to the negatively charged soil colloid. CEC ~ the size of the carpark, Base Saturation~ how many cars are in the carpark. Calcium and Magnesium bear a stronger positive charge and are tightly attracted/held to the soil colloid. Boron, potassium (bearing a weak positive charge) are therefore easily leached. Same for negatively charged ion such as nitrate
 - b. pH and tendency of soil to acidify slowly over time : Why should we keep pH at 6.0-6.6?

Nutrient availability as influenced by pH:



From: avocadosource.com

3. A leaf test measures how effective we have been at fertilising our trees last season and what adjustments to make to our program in the future.

Disclaimer:

Jerome Hardy has exercised reasonable skill, care and diligence in obtaining and preparing this information. However Jerome Hardy does not make any representations about, or guarantee, the accuracy of this information or the performance of any of the products mentioned herein. Because of the large number of factors involved in horticulture, Jerome Hardy will not accept liability for any losses arising in any way from the use of the information or advice given in this document.

Leaf and Soil Target Nutrient levels

Soil	Units	Target
pH		6.0-6.6
Olsen P	mg/L	>40
Potassium	me/100g	1.0-1.2
Calcium	me/100g	12-20
Magnesium	me/100g	2-5
CEC	me/100g	15-25
Base Saturation	%	75-90
K Base Saturation	%	3-10
Ca Base Saturation	%	55-65
Magnesium Base Saturation	%	12-15
Boron	mg/L	4-6

Leaf	Units	Target
Nitrogen	%	2.7-3.0
Phosphorous	%	0.15-0.19
Potassium	%	1.0-1.2
Calcium	%	1.5+
Magnesium	%	0.4-0.8
Manganese	Ppm	80-300
Zinc	Ppm	50-150
Boron	Ppm	40-60

For discussion:

- A. How to take a soil and leaf sample? Representative samples from the orchard of both leaves and soil taken as follows:
 - Soil : 150mm core
 - Hardened off spring flush leaves taken from healthy trees, youngest mature leaf on non-fruiting shoots
- B. Soil and leaf sample bags as well as some courier bags and submission forms are available if growers wish to take their own sample. Alternatively contact Niko or Kevin. Include Quote number 67459 on the submission form to get the 5% Avoco discount.
- C. Hill Laboratory costs are \$77+gst for soil analysis and \$99+gst for a leaf analysis less 5% if you include the AVOCO quote number.
- D. Discussion Polley and Mathis soil and leaf analyses and fertiliser programs,
- E. Key fertilisers in the avocado industry,
- F. Nutrient calculator, show example, future compliance around responsible use of fertilisers
- G. Costs of fertilisers

Grower - Health and Safety Recommendations

Health and Safety Recommendation(s):

Knowing the risks:

Knowing how to keep people safe while at work is an important process and part of your responsibility as a business owner.

If you're a business owner, then it's your responsibility, so far as reasonably practicable to:

- identify and manage the risks (hazards) associated with your workplace
- have processes in place to eliminate or minimise those risks, and
- make sure your workers know about them

Directors/Officers note:

1. That Officers have a duty of diligence to ensure their business understands and manages its key health and safety risks. This includes taking reasonable steps to:
 - a. Have relevant, up to date knowledge of workplace health and safety
 - b. Understand the nature your business and its operations and the associated health and safety risks.
 - c. Ensure the business has appropriate resources and processes to eliminate or minimise risks.
 - d. Ensure the business has processes for receiving, considering and responding to information about incidents, hazards and risks.
 - e. Ensure the business is complying with its duties and obligations under HSWA

Up to date knowledge or workplace health and safety:

Information from worksafe, safety publications, websites, industry associations and independent expert advice when required.

Some information available on worksafe website:

- Managing health and safety - a guide for farmers
- The management of agrichemicals
- A guide to safety with chainsaws
- Preventing manual handling injuries on farms
- Preventing slips/trips and falls on farms
- Guidelines for safe use of quad bikes

And many more...

Understand the business operations / ensure appropriate resources

What are the risks - how are they controlled. Talk to workers (staff and contractors - workers).

Create and review a Health and Safety budget and ensure resources are available when needed.

Decide which people in the business will have health and safety management responsibilities.

Ensure business is complying with its duties and obligations

- Make sure the company has a health and safety management system (reporting notifiable incidents, acting on improvement notices, training, ppe, worker participation)
- Ensure everyone complies with the system.
- Ensure effective engagement and participation in safety practices.
- Make sure processes are in place for workers to report incidents, hazards and risks.
Ensure that this information is acting on in a timely manner and progress is reported back.
- Make sure the risk assessment process is thorough and covers all tasks and workplaces.
- Ensure systems are in place to monitor the safety systems
- Make sure the business has an emergency response plan and they are tested regularly.
- Arrange for reviews of the Health and Safety system, especially after incidents.

Multiple PCBU's (contractors on site)

When there are multiple businesses at the same location, each business must do what they can, within their influence and control, to keep workers safe. In these situations, the most effective way to manage workplace health and safety is by working together.

Because businesses have duties to all workers and others affected by their work - not just those they directly employ or engage - they may well have **overlapping duties**. (Overlapping duties mean that more than one business has health and safety duties in relation to the same matter.)

How this can be achieved?

- Start talking to your workers - develop your risk/hazard register (examples)
- Develop your H & S system - some of it will be in your Gap manuals
- Ensure you train your staff to complete tasks - is it safe?
- Ensure you keep your equipment maintained and check it is safe to use
- Ensure you have a system for controlling people coming onto your orchard - who are they and what job are they doing, what risks are there - i.e. spraying, pruning

I have some information to show you that will be available by email or download to get you started on your H & S journey.



ANALYSIS REPORT

Page 1 of 5

Client: Pan Pacific Chemicals Limited
Address: PO Box 35191
Browns Bay
Auckland 0753
Phone: 0800 476 969 (0800 grownz)

Lab No: 1555799
Date Registered: 22-Mar-2016
Date Reported: 29-Mar-2016
Quote No:
Order No: MJ5198
Client Reference: Mathis
Submitted By: M Jenkins

shpv1

Sample Name: Mathis
Sample Type: SOIL Avocado (S28)

Lab Number: 1555799.1

Analysis		Level Found	Medium Range	Low	Medium	High
pH	pH Units	6.1	6.0 - 6.5		^	
Olsen Phosphorus	mg/L	36	25 - 50		⊙	
Anion Storage Capacity (estimated)*	%	69				
Potassium	me/100g	1.14	0.50 - 0.80			^
Calcium	me/100g	16.8	7.0 - 18.0		^	
Magnesium	me/100g	2.30	1.00 - 3.00			
Sodium	me/100g	0.07	0.00 - 0.50			
CEC	me/100g	32	12 - 25			⊙
Total Base Saturation	%	63	60 - 85		^	
Volume Weight	g/mL	0.59	0.60 - 1.00			
Sulphate Sulphur	mg/kg	31	20 - 50		✓	
Extractable Organic Sulphur	mg/kg	11	4 - 12		^	
Phosphorus (Mehlich 3)*	mg/L	42	55 - 110			
Iron (Mehlich 3)*	mg/L	56				
Manganese (Mehlich 3)*	mg/L	14.3	8.0 - 35.0			^
Zinc (Mehlich 3)*	mg/L	14.81	5.00 - 15.0			
Copper (Mehlich 3)*	mg/L	5.7	2.0 - 5.0			
Boron (Mehlich 3)*	mg/L	3.22	2.50 - 4.50		^	
Cobalt (Mehlich 3)*	mg/L	< 0.1				
Aluminium (Mehlich 3)*	mg/L	1,565				
Soil Sample Depth*	mm	0-150				
Base Saturation %		K 3.6 ^ Ca 52 ^ Mg 7.2 ^ Na 0.2				
MAF Units		K 14 Ca 12 Mg 31 Na < 2				

The above nutrient graph compares the levels found with reference interpretation levels. NOTE: It is important that the correct sample type be assigned, and that the recommended sampling procedure has been followed. R J Hill Laboratories Limited does not accept any responsibility for the resulting use of this information. IANZ Accreditation does not apply to comments and interpretations, i.e. the 'Range Levels' and subsequent graphs.



IANZ
ACCREDITED LABORATORY

This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked *, which are not accredited.



ANALYSIS REPORT

Page 2 of 5

Client:	Pan Pacific Chemicals Limited	Lab No:	1555799	shpv1
Address:	PO Box 35191 Browns Bay Auckland 0753	Date Registered:	22-Mar-2016	
		Date Reported:	29-Mar-2016	
		Quote No:		
		Order No:	MJ5198	
		Client Reference:	Mathis	
Phone:	0800 476 969 (0800 grownz)	Submitted By:	M Jenkins	

Sample Name: Mathis		Lab Number: 1555799.2			
Sample Type: LEAF Avocado (P28)					
Analysis		Level Found	Medium Range	Low	High
Nitrogen*	%	2.7	2.4 - 2.9		
Phosphorus	%	0.14	0.12 - 0.18		
Potassium	%	0.9	0.9 - 1.2		
Sulphur	%	0.26	0.20 - 0.30		
Calcium	%	1.51	1.20 - 2.00		
Magnesium	%	0.27	0.30 - 0.55		
Sodium	%	0.003	0.00 - 0.250		
Iron	mg/kg	49	40 - 100		
Manganese	mg/kg	87	80 - 300		
Zinc	mg/kg	27	25 - 50		
Copper	mg/kg	16	5 - 15		
Boron	mg/kg	40	30 - 50		

The above nutrient graph compares the levels found with reference interpretation levels. NOTE: It is important that the correct sample type be assigned, and that the recommended sampling procedure has been followed. R J Hill Laboratories Limited does not accept any responsibility for the resulting use of this information. IANZ Accreditation does not apply to comments and interpretations, i.e. the 'Range Levels' and subsequent graphs.

Avocado programme (mature trees)

Orchardists name : Mathis

Effective hectares : 5

Locality : KK

Date prepared : 3-4-16

Application	Product	Quantity per hectare
-------------	---------	----------------------

April

Ground	Fert co mix P,K,S,Ca,Mg,B	500 kg/ha
	Gold k humic	20 lt/ha

May

Ground	Avo mix	2 kg/tree
	SOP	4 kg/tree
	Gold K Humic	20 lt/ha

June

Ground	Avo mix	1 kg/tree
	Bud enhancer	10 lt/ha
Repeat in july for cold periods		

August

Ground	Avo mix	2 kg/tree
	Boron penta	100 gr/tree

September

Foliar	Yield plus	10 lt/ha
	Boron liquid	2 lt/ha
	Zinc c	2 lt/ha

November

Ground	SOP	4 kg/tree
	Gold k humic	20 lt/ha
	Liquid K	40 lt/ha

December

Foliar	Yield plus	10 lt/ha
	Mag/con	4 lt/ha

January	Avo mix	2 kg/tree
	Gold k humic	20 lt/ha
	Liquid k	40 lt/ha

February

	Avo mix	1 kg/ha
	Yield plus	10 lt/ha
	SOP	2-4 kg/tree

	N	P	K	S	Ca	B
Total nutrient kg / ha						

- Bud enhancer is good to use during cold periods
- Zinc Chelate and Boron to help bud nutrient
- Yield Plus to help sizing and quality of fruit
- Gold K Plus used to activate soil and increase nutrient uptake
- Liquid K is a 30% potassium for more immediate uptake



Notes-

All prices exclude GST and mixing or bagging charges.

Customer: B S & M V POLLEY
334 WHARAWHARA ROAD
RD 2

KATIKATI 3178
07 5495998

Service Person:

Name: Customer Centre


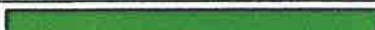





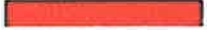




Email: CCtechrep@ravensdown.co.nz;

Customer No: 60020218
Samples Received: 15/04/2016
Report Issued: 21/04/2016
Total samples: 2
Order Number: P5119550

60020218-P5119550

PLANT TISSUE ANALYSIS FOR PLANT HEALTH

Sample name: Timon **Sample appearance:** NORMAL **Crop type:** Avocado
Lab Number: 1361519 **Plant part sampled:** Leaf & Petiole **Block type:** Horticultural

			Nutrient Status		
Nutrient	Result	Optimum Range	Low	Optimum	High
total nitrogen % w/w	2.78	2.6-2.9			
phosphorus % w/w	0.18	0.16-0.19			
potassium % w/w	0.91	1.0-1.2			
sulphur % w/w	0.24	0.2-0.6			
calcium % w/w	1.65	1.00-3.00			
magnesium % w/w	0.35	0.40-0.7			
sodium % w/w	<0.01	0.01-0.25			
iron mg/kg	73	80-200			
manganese mg/kg	94	60-500			
copper mg/kg	42	5-20			
zinc mg/kg	29	60-100			
boron mg/kg	34	30-50			

Optimum figures apply to mature fully expanded leaves from non-fruiting terminals, taken mid Feb- early May.

Analysis comment:



Adina Vlad, for ARL

Methods of analysis, uncertainty of measurement & statistical analysis are available on request. Results are based on the sample(s) received. Interpretation of results is not IANZ accredited. Unless prior authorisation is given in writing, this document may only be reproduced in full. *ME test is not IANZ accredited.

- B S & M V POLLEY 60020218 - 21/04/2016 - 15/04/2016 P5119550 - FINAL



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RD 2

KATIKATI 3178
07 5495998

Service Person: Customer Centre

Name:

Email: CCtechrep@ravensdown.co.nz; mpolley@slingshot.co.nz
NZ

Customer No: 60020218
Samples Received: 12/04/2016
Report Issued: 09/05/2016
Total samples: 3
Order Number: P5116400

60020218-P5116400SO

SOIL ANALYSIS

Lab Number	Sample Name	Core Length (cm)	Dry weight/ volume g/mL	CEC me/100g	Calcium me/100g	Magnesium me/100g	Potassium me/100g	Sodium me/100g	Base Saturation %				
									Calcium	Magnesium	Potassium	Sodium	TOTAL
									%	%	%	%	%
1360500	Timon Drive	15	0.64	25	13.2	2.29	1.21	0.12	53.2	9.2	4.9	0.5	67.8
1360501	Wharawhara Young	15	0.59	22	8.8	1.53	1.12	0.11	39.9	6.9	5.1	0.5	52.4
1360502	Wharawhara Old	15	0.56	29	15.5	2.23	1.11	0.12	53.5	7.7	3.8	0.4	65.4

Analysis comment:

Melanie

Zak Katana for ARI

IANZ

Tests indicated as not

SOIL ANALYSIS

Lab Number	Sample Name	Core Length (cm)	EDTA Cobalt	EDTA Mang	EDTA Iron	EDTA Copper	EDTA Zinc
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1360500	Timon Drive	15	0.3	111	174	18.8	60.8
1360501	Wharawhara Young	15	0.2	116	216	14.2	57.2
1360502	Wharawhara Old	15	0.2	163	221	42.2	121.7

Napier 4140

Customer: B S & M V POLLEY
334 WHARAWHARA ROAD
RD 2

KATIKATI 3178
07 5495998

Service Person: Customer Centre

Name:

Email: CCtechrep@ravensdown.co.nz
NZ

Customer No: 60020218
Samples Received: 12/04/2016
Report Issued: 09/05/2016
Total samples: 3
Order Number: P5116400

60020218-P5116400SO

GRAPHIC REPORT OF SOIL ANALYSIS

Sample Name: Timon Drive
Lab Number: 1360500

Crop Type: Avocado
Farm Type: Horticultural

Core Length (cm): 15
Soil Type: Volcanic

Analysis **Result** **Optimum**

pH 5.8 6.2-6.8

Olsen Sol. P ug/mL 59 30-60

Calcium QTU 11 12-17

Magnesium QTU 34 30-60

Potassium QTU 16 12-17

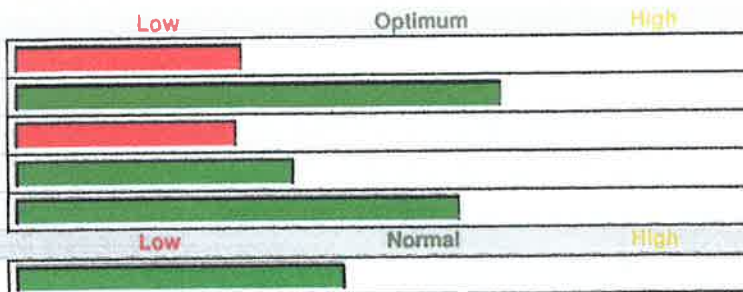
Analysis **Result** **Normal**

Sodium QTU 4 1-10

Sample Name: Wharawhara Young

Crop Type: Avocado

Core Length (cm): 15



Avocado Fertiliser Programme



Sample fertiliser programme for avocado in the **Bay of Plenty** and **Whangarei** regions with a tree density of 100/ha and a yield potential of **10 tonne per hectare**

June - August	<ul style="list-style-type: none"> Apply foliar of 1% low-biuret urea (1 kg/100 litres water) and 0.5% Magnesium Sulphate (Epsom salt) at >1500 litres water per ha on a monthly basis or as required.
Early August	<ul style="list-style-type: none"> Apply 30 kg granular potassium nitrate per ha (300 g/tree)
Early September	<ul style="list-style-type: none"> Broadcast application of lime (amount determined by the soil pH correction table, Table 1 overleaf) plus 200 kg gypsum mixture per ha Broadcast application of 400 kg single superphosphate, 75 kg of kieserite and 25 kg zinc sulphate mixture per ha Apply 250 gram Granubor 15% B (Borate 46) per tree Apply 100 kg Cuttings Avocado Regular Tree Mix TE per ha (1,000g/tree)
Foliar feeding - as required (please refer overleaf to plates 1-2 for critical flowering stages to guide foliar fertiliser application)	<ul style="list-style-type: none"> Boron sprays are recommended to enhance flowering and fruit set under certain circumstances. Boron sprays are most effective when leaf analysis indicates B deficiency (< 22 mg/kg leaf B during previous autumn leaf test) If autumn leaf test value is < 22 mg/kg B apply at the cauliflower stage of development (Plate 1) and repeat at 15% flowering (Plate 2) (refer to Note 1) If autumn leaf test value is 22 – 50 mg/kg B then one foliar application at the cauliflower stage of development (Plate 1) should suffice (refer to Note 1) If autumn leaf test value is > 50 mg/kg B then no application is required. Apply either 100 g Solubor (20% Boron) per 100 litres water as a foliar spray to near run-off using 1,500 litres of water per ha., or alternatively apply a proprietary foliar boron preparation. Seek specialist advice when either foliar sprays of Zinc Sulphate Heptahydrate (23% zinc) or a zinc proprietary product are used over flowering.
Early October	<ul style="list-style-type: none"> Apply 100 kg Cuttings Avocado Regular Tree Mix TE per ha (1,000g/tree)
Early November	<ul style="list-style-type: none"> Apply 100 kg Cuttings Avocado Regular Tree Mix TE per ha (1,000g/tree)
Early December	<ul style="list-style-type: none"> Apply 100 kg Cuttings Avocado Regular Tree Mix TE per ha (1,000g/tree)
Early January	<ul style="list-style-type: none"> Apply 110 kg Cuttings Avocado Regular Tree Mix TE per ha (1,100g/tree)
Mid February	<ul style="list-style-type: none"> Repeat broadcast applications of gypsum, superphosphate, kieserite and zinc sulphate as in Early September (refer to Note 5)
Mid March	<ul style="list-style-type: none"> Apply 135 kg Cuttings Avocado Regular Tree Mix TE per ha (1,350g/tree)
Mid April	<ul style="list-style-type: none"> Apply 135 kg Cuttings Avocado Regular Tree Mix TE per ha (1,350g/tree)
Mid May	<ul style="list-style-type: none"> Apply 50 kg granular potassium nitrate per ha (500g/tree)
Mid June	<ul style="list-style-type: none"> Apply 100 kg Cuttings Avocado Regular Tree Mix TE per ha (1,000g/tree)

This programme is recommended in association with soil and leaf tissue norms, and soil pH correction chart (Tables 1-3) and flower development stages (Plates 1-2). See notes overleaf.

Notes:

- If the autumn leaf test value < 22 mg/kg **Boron**, apply 100 g Boric acid (17% B) per tree in November and March. If leaf Boron level is between 22 mg/kg and 28 mg/kg then only one application in March is necessary.
- If the autumn leaf test value is < 40 mg/kg **Zinc** then apply trunk drench of 250 g Zinc sulphate heptahydrate (23% Zn) in 5 litres water on 4-8 year old trees. For older trees use 500 g of Zinc sulphate heptahydrate in 10 litres water. Apply trunk drench between August – October.
- To correct all other trace element deficiencies, seek specialist advice.
- In situations of heavy determinate flowering (> 60%) seek advice for additional fertiliser inputs.
- A leaf test can be taken in mid-February to mid-March in place of the traditional late April to early May period. The same desired leaf levels apply (Table 3). Under non-irrigated and dry weather conditions, the Mid February fertiliser application may be delayed as late as early April.
- A soil test should be taken from mid to late July
- For trees on Reed rootstock, no additional Boron should be applied including the Early September application.**



Feedback Form

We'd like to know what you thought about today's Field Day. Your comments will help us ensure that future Apata Avocado Grower Field Days provide the information you want to know about, in the right format.

Please take a moment to answer the following questions. When you have completed the form, please hand it to a member of Apata's Grower Services Team.

How was the venue for this Field Day?

Please comment on today's speakers and topics

Please comment on the length of today's Field Day

What topics would you like covered at future Apata Field Days?

Any other comments?
