

Our Ref : ACL/MIS-OTH 220159

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
 School of Biological Sciences
 G08 Building, Universiti Sains Malaysia
 11800 USM Pulau Pinang

Sample description : Received one (1) samples labelled as **Postharvest Soil**
Marking: USM Penang L14-Building, Plant House - Insect Frass Species
Acheta Domesticus

Results of Analysis

Parameter	Unit	Method	Results
pH	-	In House based on APHA 4500 H ⁺ B	6.8
Exchangeable Potassium	mg/L	MS 678: Pt. I to V : 1980	17.5
Exchangeable Calcium	mg/L	MS 678: Pt. I to V : 1980	67.0
Exchangeable Magnesium	mg/L	MS 678: Pt. I to V : 1980	55.5
Cation Exchange Capacity	meq/100g	MS 678: Pt. I to V : 1980	7.2
Total Organic Carbon	%w/w	MS678:Pt I to IV:1980	1.8
Total Organic Matter	%w/w	In House	9.9

Note:

"<" denote "Less Than"



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Our Ref : ACL/MIS-OTH 220159/A

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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Sample description : Received one (1) samples labelled as **Postharvest Soil**
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Acheta Domesticus

Results of Analysis

Parameter	Unit	Method	Results
Total Nitrogen	%w/w	MS 1120 (2004)	0.27
Available Phosphorus	mg/kg	Bray Extraction	167

Note:

"<" denote "Less Than"



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Our Ref : ACL/MIS-OTH 220159/B

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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Marking: USM Penang L14-Building, Plant House - Insect Frass Species
Acheta Domesticus

Results of Analysis

Parameter	Unit	Method	Results
C/N Ratio	-	In-House	6.7

Note:

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Our Ref : ACL/MIS-OTH 220159/C

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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11800 USM Pulau Pinang

Sample description : Received one (1) samples labelled as **Postharvest Soil**
Marking: USM Penang L14-Building, Plant House - Insect Frass Species
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Results of Analysis

Parameter	Unit	Method	Results
Soil Conductivity	$\mu\text{S/cm}$	MS 678:Part VI to IX:1980	149

Note:

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Our Ref : ACL/MIS-OTH 220333

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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11800 USM Pulau Pinang

Sample description : Received one (1) samples labelled as **Postharvest Soil Marking:
USM Penang L14-Building, Plant House - Insect Frass Species
Acheta Domesticus**

Results of Analysis

Parameter	Unit	Method	Results
Total Potassium as K	mg/kg	ICP-OES	1,160.0


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Our Ref : ACL/MIS-OTH 220340

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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Sample description : Received one (1) samples labelled as **Postharvest Soil Marking:
USM Penang L14-Building, Plant House - Insect Frass Species
Acheta Domesticus**

Results of Analysis

Parameter	Unit	Method	Results
Total Sulphur as S	mg/kg	ICP-OES	470.0



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Our Ref : ACL/MIS-OTH 220293

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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Sample description : Received one (1) samples labelled as **Postharvest Soil Marking: USM Penang L14-Building, Plant House - Insect Frass Species Acheta Domesticus**

Results of Analysis

Parameter	Unit	Method	Results
Total Phosphorus	mg/kg	ICP-OES	563.5
Ammonium	mg/kg	Ion Chromatography	79.8
Nitrate	mg/kg	Ion Chromatography	0.01
Nitrite	mg/kg	Ion Chromatography	0.01

Note:

"ND" denotes "Not Detected"

"<" denotes "Less Than"



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Our Ref : ACL/MIS-OTH 220350

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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Sample description : Received one (1) samples labelled as **Postharvest Soil Marking:
USM Penang L14-Building, Plant House - Insect Frass Species
Acheta Domesticus**

Results of Analysis

Parameter	Unit	Method	Results
Sulphate as SO ₄	% w/w	MS 678 : Part VI to IX:1980	1.9
Sulphide as S ₂ -	mg/kg	APHA 4500-S2-D	< 0.5
Phosphate as PO ₄	mg/kg	Spectrometry	144.4

Note:

"<" denotes "Less Than"



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Our Ref : ACL/MIS-OTH 220355

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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Sample description : Received one (1) samples labelled as **Postharvest Soil Marking:
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Results of Analysis

Parameter	Unit	Method	Results
Crude Fiber	% w/w	MS 1414 (1997)	1.3



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Our Ref : ACL/MIS-OTH 220369

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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Sample description : Received one (1) samples labelled as **Postharvest Soil Marking:
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Acheta Domesticus**

Results of Analysis

Parameter	Unit	Method	Results
Total Iron as Fe	mg/kg	ICP-OES	7,145.0



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Our Ref : ACL/MIS-OTH 220384

Company : **DR AHMAD BUKHARY BIN AHMAD KHAIR**
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11800 USM Pulau Pinang

Sample description : Received one (1) samples labelled as **Postharvest Soil Marking:
USM Penang L14-Building, Plant House - Insect Frass Species
Acheta Domesticus**

Results of Analysis

Parameter	Unit	Method	Results
Organic Nitrogen as N	mg/kg	APHA4500Norg-B, NH3-G	1,560
Ferric Iron	mg/kg	APHA3500Fe,3120	13,600
Iron as Fe ₂ O ₃	%w/w	By Calculation	2.1

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