

R J Hill Laboratories Limited
 221A Ellis Street Frankton 3204
 Private Bag 3205
 Hamilton 3240 New Zealand

☎ **0508 HILL LAB** (44 555 22)
 ☎ +64 7 858 2000
 ✉ mail@hill-labs.co.nz
 🌐 www.hill-labs.co.nz

Client

Name _____

Address _____

Postcode _____

Email _____

Phone _____

Client Reference _____

Additional Client Ref _____

Quote No _____ Order No _____

Date Sampled _____

Charge To Client Primary Contact (Company) Other _____

Primary Contact

Company _____

Address _____

Email _____

Phone _____

Submitter (if different) _____

Email _____

Results To Reports will be emailed to Primary Contact by default. Additional Reports will be sent as specified below.

Email Primary Contact Email Client Email Submitter
 Email Other

SOIL SAMPLE DETAILS

Recommended Profiles are outlined below, and on the reverse of this sheet.

Please indicate your requested tests with a ✓

500g Minimum Required

Sample Identification	Sample Depth (mm)	Dairy (D), Drystock (DS) OR Crop Type (Specify)	Soil Code*	Rec. Profile	BS	S	ASC	RP	OrgSP	OM	AN	HWEON/ N _{ir}	B	EDTA	M3	SHealthP	EWeDNA p	See Over Page	Lab #	
																				Other

*Soil Code: Ash (A), Pumice (Pu), Peat (Pt), Sedimentary (Sed) – applies for pasture only, Glasshouse (GH)

Recommended Soil Profiles: (see Crop Guides)

Pasture (Basic Soil + S Profile), **Arable Crops** (Basic Soil + S Profile + Potentially Available N), **Vegetables** (Basic Soil + S Profile + Pot Available N), **Avocado** (Basic Soil + M3), **Kiwifruit** (Basic Soil + Pot Available N)

PLANT SAMPLE DETAILS

Recommended Profiles are outlined below, and on the reverse of this sheet.

Please indicate your requested tests with a ✓

100g Minimum Required – Leaf
 500g Minimum Required - Pasture

Sample Identification	Dairy (D), Drystock (DS) OR Crop Type/Variety (Specify)	Crop Plant Part / Growth Stage	Rec. Profile	BP	MO	CO	SE	I	CINir	NO3	MPast	Clov	CGP	CPotP	See Over Page	Lab #

Recommended Plant Profiles: (see Crop Guides)

Kiwifruit (Basic Plant + CINir), **Avocado** (Basic Plant + CINir), **Brassica** (Basic Plant + Molybdenum), **Lucerne** (Basic Plant + Molybdenum), **Mixed Pasture** (Basic Plant, Mo, Co, Se + CINir + Crude Protein + ME), **Clover** (Basic Plant + Molybdenum)

FEED SAMPLE DETAILS

Recommended Profiles are outlined below.

Please indicate your requested tests with a ✓

500g-1kg Minimum Required - Feed
 1kg Minimum Required - Silage/Baleage

Sample Identification	Crop Grown	Sample Source e.g. paddock, trucks, stack, bales	Weeks in stack/bales (silage/baleage only)	DM	DMME	Feed	ExtFed	Silage	ExtSil	Compound Feed CpdFeed	Other e.g. VFA, NO3-N	Lab#

Recommended Feed Profiles:

Feedstuff **DM** (Dry matter only), **DMME** (Dry Matter, Crude Protein, Digestibility, Metabolisable Energy), **Feed** (Dry Matter, Crude Protein, Crude Fat, Ash, Soluble Sugars, Starch, ADF, NDF, Lignin, Metabolisable Energy, Digestibility), **ExtFed** (Feed profile plus major & trace elements incl CINir), **CpdFeed** (Dry Matter, Crude Protein, Crude Fat, Ash, Soluble Sugars, Starch, ADF, NDF, Metabolisable Energy, Digestibility) - select between NIR analysis OR Wet Chemistry only (Price Impact).
Silage/Baleage 2+ weeks ensiled **Silage** (pH, Dry Matter, Crude Protein, Crude Fat, Ash, Soluble Sugars, Starch, ADF, NDF, Lignin, Metabolisable Energy, Digestibility, Lactic Acid, Ammonium N/Total N), **ExtSil** (Silage profile plus major & trace elements incl CINir)

ADDITIONAL INSTRUCTIONS

NB. Please advise laboratory if hazardous substances possibly present in samples.

Total Number of Samples Sent for Job **NOTE:** If more than one courier bag being sent for one farm, please indicate eg. 1 of 2, 2 of 2 etc on outside of courier bag so that all samples are reported in one job.

Please supply more of:

(specify quantities required)

Qty: Request Forms KB 2009 Plant/Feed Bags (indiv)
 Qty: Soil & Plant DIY sampling kits Soil Bags (indiv)
 Qty: Courier Bags:
 NZ Courier NZ Post
 Qty: Other _____

SAMPLING INSTRUCTIONS

Interpretation of test data depends on the sample being taken (sampled) in the recommended manner. These notes will help to ensure that this is done. More detailed guides for specific crops are available on our website under **Crop Guides**. Please advise laboratory if hazardous substances might possibly be present in/on samples

Soil:

- to determine the nutrient status of soils
1. Take samples from sites representative of the greater part of the area.
Avoid sampling unusual areas such as around hedges, fences, troughs, gates etc.
 2. Sample to the correct depth: Pasture 7.5cm, Arable land and orchards 15cm, Turf 7.5cm.
 3. Sample on a grid or zig-zag pattern, taking at least 20 cores.
Note: only 500cc (0.5 kg) is required for analysis
 4. Avoid contamination of samples, e.g. fertiliser. Use clean equipment and plastic sample bags.
 5. Clearly label sample bags with a permanent marker or ballpoint pen.
 6. Soils from horticultural, intensive cropping sites and turf areas should be analysed annually, at the same time of year. Arable and pasture paddocks also warrant sampling every year, especially if withholding or reducing fertiliser inputs when more regular data on nutrient depletion is essential.
 7. Carefully check you have filled in the request form.
 8. Send sample to laboratory as soon after collection as possible.

Plant:

- for diagnosis of nutrient imbalance
1. Collect the sample from plants that are representative of the crop. Avoid sampling from plants adjacent to shelter, headlands or other unusual areas.
 2. Take approximately **100grams (25-30 leaves for larger plants)**.
 3. Take care to avoid contamination of samples, particularly with soil, fertilisers and chemicals.
 4. Identify the sample bags with permanent marker pen or ballpoint pen.
 5. For diagnosis of nutritional disorders, sample plants showing signs of abnormality.
 6. Carefully check that you have filled in the request form, then promptly despatch to the laboratory, or keep chilled overnight if necessary.

Feed:

1. Collect forage or silage sample representative of the feed source.
2. Take approximately **500g-1kg** and place in sample bag, seal and identify clearly with permanent marker pen or ballpoint pen.
3. Carefully check that you have filled in the request form, then promptly despatch to the laboratory. Send samples to laboratory as soon as possible after collection, or keep chilled overnight if necessary. Feed quality tests will be analysed using NIRS technology with automatic test notation if statistical prediction outliers exist. Reference method (wet chemistry) tests are available upon request.

RECOMMENDED TEST SELECTIONS

See Crop Guides on website
www.hill-labs.co.nz

Hill Labs offers a wide range of tests for soil and plant testing. To assist you with selecting the tests to suit your particular needs, we have supplied the guide below. This shows which tests are strongly recommended, recommended, or applicable for special investigations only.
Soil tests marked with * will be analysed using NIRS with codeswap to wet chemistry if statistical prediction outliers exist.

Recommendation Legend:

- Strongly recommended
- * Recommended
- ⊕ For special investigations

Note: Soil and Plant testing will incur a sample preparation fee if the basic test is not requested.

Soils

Crop Grown	BS	S	*ASC	RP	*OrgSP	*OM	*AN	SS	*HWEONNir/PMN	B	SHealthP
Pasture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	*	x	x						x
Arable Crop	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	x	x	x	x	<input checked="" type="checkbox"/>		x		x
Forestry	<input checked="" type="checkbox"/>	x	x			x			x	x	
Sports Turf	<input checked="" type="checkbox"/>		x			x		⊕			
Hort. Tree Crops	<input checked="" type="checkbox"/>	x	x			x			x	x	x
Hort. Field Crops	<input checked="" type="checkbox"/>	x	x		x	x	<input checked="" type="checkbox"/>	⊕	x		x
Hort. Protected/Glasshouse	<input checked="" type="checkbox"/>		x			x		<input checked="" type="checkbox"/>			

Basic Soil Profile: volume weight, pH, Olsen phosphorus, potassium, calcium, magnesium, sodium, C.E.C., base saturation
***Organic Soil Profile:** Organic matter, Total N, Potentially Available N
Soil Health Profile: Basic Soil, Sulphur Profile, *Anion Storage Capacity, *Organic Soil Profile, *Hot Water Extractable Carbon
Other soil tests available:
 S – sulphate sulphur, *organic sulphur *ASC – Anion Storage Capacity
 RP – resin phosphorus *OM – organic matter
 *AN/AMN – potentially available nitrogen (anaerobic mineralisable N)
 SS – soluble salts rMg – reserve magnesium B – boron
 pH – pH only AL – aluminium
 TMO – Total Molybdenum TSe – Total Selenium
 TBK – reserve potassium *TN – total nitrogen *CN – C:N ratio
 EDTA – EDTA manganese, zinc, copper, cobalt, iron
 TP – total phosphorus *TS – total sulphur TCd – total Cadmium
 M3(mehlich 3) – (P, Ca, Mg, K, Na, Mn, Zn, Cu, Co, Fe, Al, B)
 *HWEONir – Hot Water Extractable Carbon
 *HWEONNir & PMN – Hot Water Extractable Organic Nitrogen for Potentially Mineralisable N
 MinN – NO3-N, NH4-N (soils to be chilled before sending)
 SoilTexture - %sand, %silt, %clay
 Earthworm eDNA Profile - (A.caliginosa)

Plants

Crop Grown	BP	MO	CO	SE	I	CINir	AL	NO3	Other
Pasture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	x		⊕	⊕	
Fruit Crop	<input checked="" type="checkbox"/>						⊕		
Vegetable Crop	<input checked="" type="checkbox"/>	x					⊕	⊕	
Kiwifruit	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			
Arable Crop	<input checked="" type="checkbox"/>							⊕	
Flowers/Ornamental Crops	<input checked="" type="checkbox"/>								

Basic Plant Profile: *nitrogen, phosphorus, potassium, sulphur, calcium, magnesium, sodium, iron, manganese, zinc, copper, boron, titanium
Mixed Pasture Profile (MPast): Basic Plant, Mo, Co, Se + CINir + Crude Protein + ME
Clover Only Profile (Clov): Tests carried out on a Clover sample (Basic Plant, Mo).
Combined Grape Profile (CGP): Tests are carried out on the Petiole (NO3-N, P, K, Mg, S) and the Blade (N, P, K, S, Mg, Ca, Na, Mn, Zn, Cu, Fe, B, Ti) of the same leaf sample.
Combined Potato Profile (CPotP): Tests are carried out on the Petiole (NO3-N, P, K, Mg) and the Blade (N, P, K, S, Mg, Ca, Na, Mn, Zn, Cu, Fe, B, Ti) of the same leaf sample.
Special plant tests:
 MO – molybdenum CO – cobalt SE – selenium I – iodine CINir – chloride
 AL – aluminium NO3 – nitrate-N NI – nutrient indices