ANALYSIS REQUEST

R J Hill Laboratories Limited
28 Duke 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 *Fax*

Client Reference

Additional Client Ref

Quote No *Order No*

Date Sampled

Charge To ☐ Client ☐ Submitter (Company)
☐ Other

Primary Contact

Submitter *(if different)*

Company

Address

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
☐ Other

SOIL SAMPLE DETAILS

***Recommended Profiles** are outlined below, and on the reverse of this sheet.* *Please indicate your requested tests with a ✓*

Sample Identification	*Sample Depth (mm)*	*Dairy (**D**), Drystock (**DS**) **OR** Crop Type (Specify)*	*Soil Code**	**Rec. Profile**	Basic Soil **BS**	Sulphur Profile **S**	Anion Storage Capacity **ASC**	Resin P **RP**	Organic Soil Profile **OrgSP**	Organic Matter **OM**	P rt Avail Nitrogen **AN**	PMN **HWEON**	Boron **B**	Trace Metals **EDTA**	Melich 3 **M3**	Soil Health Profile **SHealthP**	**See Over Page** **Other**	**Lab#**

*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 ✓*

Sample Identification	*Dairy (**D**), Drystock (**DS**) **OR** Crop Type/Variety (Specify)*	*Crop Plant Part / Growth Stage*	**Rec. Profile**	Basic Plant **BP**	Molybdenum **MO**	Cobalt **CO**	Selenium **SE**	Iodine **I**	Chloride **CL**	Nitrate **NO3**	Mixed Pasture Profile **MPast**	Clover Only Profile **Clov**	Combined Grape Profile **CGP**	Combined Potato Profile **CPotP**	**See Over Page** **Other**	**Lab#**

Recommended Plant Profiles: (see Crop Guides) ***Kiwifruit*** *(Basic Plant + Cl),* ***Avocado*** *(Basic Plant + Cl),* ***Brassica*** *(Basic Plant + Molybdenum),* ***Lucerne*** *(Basic Plant + Molybdenum),* ***Mixed Pasture*** *(Basic Plant , Mo, Co, Se + Cl + Crude Protein + ME),* ***Clover*** *(Basic Plant + Molybdenum)*

FEED SAMPLE DETAILS

***Recommended Profiles** are outlined below.* *Please indicate your requested tests with a ✓*

Sample Identification	*Crop Grown*	*Sample Source e.g. paddock, trucks, stack, bales*	*Weeks in stack/bales (silage/baleage only)*	Dry Matter **DM**	Dry Matter, CP, ME **DMME**	Feed **Feed**	Extended Feed **ExtFed**	Silage **Silage**	Extended Silage **ExtSil**	Compound Feed **CpdFeed** NIR	Compound Feed **CpdFeed** Wet Chem	**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 Cl),* ***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	***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 Cl)*

ADDITIONAL INSTRUCTIONS

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

☐ *Total Number of Samples Sent*

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* ☐ *Courier Post*
Qty: ☐ *Other*

Hill Laboratories terms of trade can be viewed on our website. Submission of samples on this analysis request form implies acceptance of those terms.

PLEASE SIGN Signature Date

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-laboratories.com

Hill Laboratories 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	Basic Soil BS	Sulphur Profile S	Anion Storage Capacity *ASC	Resin P RP	Organic Soi Profile *OrgSP	Organic Matter *OM	Pot Avail. Nitrogen *AN	Soluble Salts SS	Potentially Mineralisable N *HWEON/PMN	Boron B	Soil Health Profile SHealthP
Pasture	☒	☒	×	×	×						×
Arable Crop	☒	☒	×	×	×	×	☒		×		×
Forestry	☒	×	×			×			×	×	
Sports Turf	☒		×			×		⌖			
Hort. Tree Crops	☒	×	×			×			×	×	×
Hort. Field Crops	☒	×	×		×	×	☒	⌖	×		×
Hort. Protected/Glasshouse	☒		×			×		☒			

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)*
****HWEC*** *– Hot Water Extractable Carbon*
****HWEON & 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*

Plants

Crop Grown	Basic Plant BP	Molybdenum MO	Cobalt CO	Selenium SE	Iodine I	Chloride CL	Sulphate Sulphur SO4	Aluminium AL	Plant Nitrate NO3	Other
Pasture	☒	☒	☒	☒	×		⌖	⌖	⌖	
Fruit Crop	☒					⌖				
Vegetable Crop	☒	×				⌖	⌖		⌖	
Kiwifruit	☒					☒				
Arable Crop	☒						⌖		⌖	
Flowers/Ornamental Crops	☒									

Basic Plant Profile: **nitrogen, phosphorus, potassium, sulphur, calcium, magnesium, sodium, iron, manganese, zinc, copper, boron*
Mixed Pasture Profile (MPast): *Basic Plant, Mo, Co, Se + Cl + 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, Zu, Cu, Fe, B) 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, Zu, Cu, Fe, B) of the same leaf sample.*
Special plant tests:
MO *– molybdenum* ***CO*** *– cobalt* ***SE*** *– selenium* ***I*** *– iodine* ***CL*** *– chloride*
SO4 *– sulphate-S* ***AL*** *– aluminium* ***NO3*** *– nitrate-N* ***NI*** *– nutrient indices*