

## TESTING FOR ORGANIC FARMING

### Laboratory Testing for Organic Farming

Organic Farmers must check to see that their land and, in some cases, the food they produce do not exceed the guideline levels set by the certifying organisation. The test results also provide ongoing feedback that their practices are effective. Soil nutrient and organic matter testing is a requirement for approved organic farming and growing systems. Organic producers aim to maintain soil nutrient status, maintain or improve soil physical quality and manage the soil environment to achieve efficient utilization of soil nutrients. Plant tissue (leaf) tests are used to measure the nutrient status of plants (major nutrients and trace elements) as an indicator of the effectiveness of the fertiliser and nutrient management programme.

At Hill Labs we can offer a range of accredited tests depending on our clients requirements. Please contact the laboratory to confirm accreditation status of required tests. One of the primary factors that an organic farmer must consider is the land use history. For example if the land was previously used intensively for horticulture, a multi-residue test is generally required due to the wide range of chemicals that potentially could have been used. For land used for pastoral farming, a DDT test is required due to the widespread use some 30 to 40 years ago of the persistent DDT insecticide. For organic compost, a herbicide test and heavy metal test are generally required.

Laboratory testing is only a part of obtaining organic certification, which ensures New Zealand can provide adequate assurances to the buyers that they are receiving genuine organic produce.

The main areas of chemical testing for Organic Growers are:

- Nutrient Status
- Pesticide residues
- Heavy Metals

### Nutrient Status

Nutrient status testing varies according to sample type and growing operation.

Our general recommendations are:

#### Soils [Ag Division]

<b>Horticulture:</b> Basic Soil plus Organic Matter.....	\$96
<b>Cropping:</b> Basic Soil plus Sulphur Profile, Organic Soil Profile.....	\$138
<b>Pastoral:</b> Basic Soil plus Sulphur Profile, Organic Matter.....	\$114

NB "Basic Soil" consists of pH, Phosphorus, Potassium, Calcium, Magnesium, Sodium, Cation Exchange Capacity, Base Saturation, Volume Weight

"Sulphur Profile" consists of Sulphate-S, Extractable Organic S

"Organic Soil Profile" consists of Total N, Potentially Available N, Organic Matter (Total Carbon)

A range of other tests are available eg. Reserve Potassium (TBK)

#### Plant tissue [Ag Division]

<b>Mixed Pasture:</b> Basic Plant plus Chloride, Molybdenum, Cobalt, Selenium, CP & ME.....	\$136
<b>Clover Only:</b> Basic Plant plus Molybdenum .....	\$118
<b>Kiwifruit:</b> Basic Plant plus Chloride .....	\$114
<b>Avocado:</b> Basic Plant plus Chloride (incl acid wash).....	\$126
<b>Brassica:</b> Basic Plant plus Molybdenum .....	\$113
<b>All Other:</b> Basic Plant Only .....	\$96

NB "Basic Plant" consists of Nitrogen, Phosphorus, Potassium, Sulphur, Calcium, Magnesium, Sodium, Iron, Manganese, Zinc, Copper, Boron, Titanium

## Pesticide Residues [Env. Division]

Testing for pesticide residues is normally undertaken on soil samples. Which tests are performed depends on the prior history of the property and the requirements of the certifying body.

* <b>DDT and metabolites</b> .....	\$111
* <b>Pesticide Multiresidue Screen: 180+ compounds (includes DDT)</b> .....	\$322
* <b>Acidic Herbicides:</b> including 2,4-D, 2,4,5-T, Triclopyr etc .....	\$310

## Heavy Metals [Ag. Division]

Heavy Metals are not normally required as a routine test on soil but are used when contamination is suspected.

<b>Heavy Metal Screen:</b> Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Zinc, Mercury .....	\$78 (excl prep)
--	------------------

## Food Analysis [FnB Division]

This is undertaken on fruits or plant material to evaluate food safety or compliance with various regulations.

Analysis may include Heavy Metals, Pesticides and Essential elements.

Please contact the laboratory (Food & Biological Division) for quotations for your requirements.

## Compost & Manures [Ag. Division]

Special testing profiles have been set up for Composts (see Technical Note)

The routine test profiles offered are shown below:

<b>Basic Compost:</b> Dry Matter, Nitrogen, Phosphorus, Potassium, Sulphur, Calcium, Magnesium, Sodium, Manganese, Zinc, Copper, Iron, Boron, Organic Matter, Carbon:Nitrogen ratio .....	\$126
<b>Heavy Metals:</b> Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Zinc, Mercury.....	\$97
* <b>Pesticide Screen:</b> Multi-residue (170 compounds) [Env.].....	\$322
* <b>Acidic Herbicide Screen:</b> 24-D,245T, triclopyr etc [Env.].....	\$310
<b>Water Extractables A:</b> pH, Soluble Salts .....	\$40
<b>Water Extractables B:</b> pH, Soluble Salts, Ammonium-N, Nitrate-N, Phosphorus, Sulphur, Potassium, Calcium, Magnesium, Sodium .....	\$74

\* Indicative prices only, a quote is recommended to ensure correct tests carried out. Tests included in these screens may not be IANZ accredited. Please contact the laboratory if accredited tests are required by the certifying body for residue and/or elemental analyses.

**All prices are in New Zealand dollars, exclusive of GST. Prices are valid for samples submitted on and after the 1<sup>st</sup> of April 2024. This schedule of charges replaces all previous schedules and relates only to testing carried out in New Zealand. Hill Labs reserves the right to modify prices at any time of choosing.**

## Contact Details

For further information about any of the above tests please contact an Agriculture Client Service Manager.