IAS LABORATORIES
ANALYSING RESULTS PROMOTING SUSTAINABILITY

AGRICULTURAL ANALYSIS

SOIL TESTING

IAS Laboratories offer a range of soil analysis options which provide essential information on Soil Health and baseline Nutrient Status. It forms the basis for efficient and cost effective use of lime, fertilisers and trace elements. Soil testing is now a key component in Nutrient Management Planning and plays an important role in ensuring that the loss of nutrients from agriculture to surface water is minimised.

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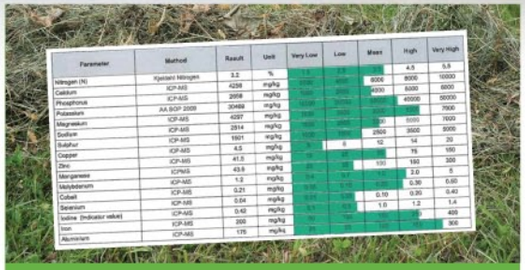
IAS Laboratories specialise in soil analysis suites including:

1. Basic Soil Test: pH, P, K and lime requirement.
2. Basic + Organic Matter: pH, P, K, lime requirement plus organic matter.
3. Basic Soil Trace Elements: pH, P, K, lime requirement and trace element analysis. (Magnesium, Zinc, Manganese, Copper).
4. Soil Heavy Metals: Copper, Zinc, Cadmium, Chromium, Nickel, Mercury, Lead
5. Soil Structural Analysis: Sand, Silt and Clay Percentages
6. Cation Exchange Capacity: Measure of the soils ability to hold and release nutrients
7. Organic Matter



Parameter	Method	Result	Unit	Very Low	Low	Mean	High	Very High
Nitrogen (N)	Kjeldahl Nitrogen	3.2	%				4.5	5.0
Calcium	ICP-MS	4258	mg/kg			6000	8000	10000
Phosphorus	ICP-MS	2058	mg/kg			4000	6000	8000
Potassium	AA SOP 2009	30489	mg/kg				40000	50000
Magnesium	ICP-MS	4287	mg/kg				5000	7000
Sodium	ICP-MS	2514	mg/kg			2000	3000	5000
Sulphur	ICP-MS	1931	mg/kg		6	12	14	20
Copper	ICP-MS	4.5	mg/kg				75	150
Zinc	ICP-MS	41.5	mg/kg			100	150	500
Manganese	ICP-MS	43.9	mg/kg				2.0	5
Molybdenum	ICP-MS	1.3	mg/kg				0.30	0.50
Cobalt	ICP-MS	0.21	mg/kg				0.30	0.40
Selenium	ICP-MS	0.04	mg/kg			0.10	0.30	1.4
Iodine (Indicator value)	ICP-MS	0.42	mg/kg			1.0	1.2	400
Iron	ICP-MS	200	mg/kg				300	300
Aluminium	ICP-MS	175	mg/kg					

FORAGE ANALYSIS

1. Mineral Scan – Fresh Grass, Silage, Hay
Helps to identify any deficiencies or even toxicities of minerals present. Test includes: Nitrogen, Calcium, Phosphorus, Potassium, Magnesium, Sodium, Sulphur, Boron, Copper, Manganese, Zinc, Selenium, Cobalt, Molybdenum, Iodine, Iron, Aluminium.

2. Feed Evaluation/ Nutritional Information – Fresh Grass, Grass Silage/ Maize Silage/ Whole Crop Silage, Hay
The nutritional value of feedstuffs and forages is important for correctly formulating diets for animals. Test Includes: DM, Protein, ME, NDF, Ash, Oil, Sugar, Nitrate, Buffering Capacity.

3. Yeast, Mould, Mycotoxins – Hay, Grass
A toxic byproduct of moulds and yeasts in feed stuffs, mycotoxins can decrease the palatability and nutrients in feeds in addition to being harmful to livestock.

4. Pre Cut Silage – Sugars & Nitrates in Fresh Grass
Pre-cut grass testing can be used as a valuable tool to help in the decision making process during the production of grass silage (Results Same Day).

5. Crop Scan Tissue – Plant tissue sampling can help you identify nutrient deficiencies in a crop
A leaf tissue sample analysis provides a grower with current nutrient levels of a crop, allowing them to determine the best course of action in rectifying nutrient deficiencies. Test includes: Nitrogen, Phosphorus, Potassium, Sulphur, Calcium, Magnesium, Boron, Copper, Zinc, Manganese, Iron and Aluminium.

MILK MINERAL SCAN

Mineral deficiencies and imbalances impact on herd performance under three broad categories:

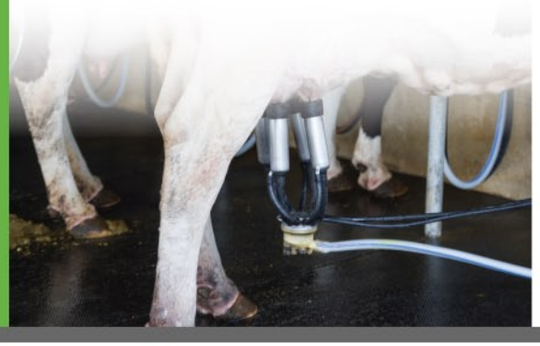
1. Reduced fertility performance: silent heats, reduced conception rates, reabsorptions, abortions, tetany, milk fever etc.
2. Reduced thrive and immunity
3. Structural problems such as poor hoof quality.

Mineral analysis is an essential tool in diagnosing and quantifying the background mineral levels on a farm.

Mineral Milk Scan: Magnesium, Selenium, Sulphur, Sodium, Copper, Zinc, Iodine, Iron, Calcium, Phosphorus, Potassium, Manganese, Molybdenum.

EXAMPLE OF MILK TEST RESULTS

Parameter	Method	Result	Unit	Bovine Guide Line Value	Ovine Guide Line Value
				Bovine	Ovine
Calcium	ICP-MS	1199	mg/kg	1100	1200
Potassium	AA SOP 2009	1310	mg/kg	1200	1400
Magnesium	ICP-MS	115	mg/kg	100	100
Sodium*	ICP-MS	393	mg/kg	350	350
Phosphorus	ICP-MS	970	mg/kg	1100	1200
Sulphur*	ICP-MS	301	mg/kg	250	250
Copper*	ICP-MS	96	µg/kg	100	100
Zinc*	ICP-MS	3918	µg/kg	4200	4200
Manganese	ICPMS	65	µg/kg	35	35
Molybdenum*	ICP-MS	53	µg/kg	35	35
Selenium*	ICP-MS	20	µg/kg	25	25
Iodine (Indicator Value Only)*	ICP-MS	92	µg/kg	100	100
Iron (Indicator Value Only)	ICP-MS	1715	µg/kg	<1000	<1000



MANURE & SLURRY ANALYSIS

Measuring and realising the true value of Farm Yard Manure and Slurry, in all types of farming systems, is becoming more and more critical. IAS carry out Slurry and Manure analysis for customers to enable them to make accurate savings in other fertilisers. The service comprises of the main analysis required with a report providing the fertiliser value of the farmyard manure.

Slurry/FYM: Total Nitrogen, Potassium, Phosphorus & Dry matter.

Slurry/FYM: Kjeldahl Nitrogen, Potassium, Phosphorus & Dry matter.

WATER TESTING

Did you know IAS Laboratories can test your Domestic Drinking Water to INAB Accreditation.

We also offer water testing for all your Bord Bia requirements as well as Chemical and Bacterial analysis of all water.

IAS Laboratory is an independent accredited analytical laboratory with over 30 years' experience. Originally as part of the Irish Sugar R & D, IAS Labs has become one of Ireland's leading Agricultural and Environmental Laboratories. IAS has an extensive and comprehensive testing capability providing services to a wide range of customers.
The list of tests listed here are only a small example of the tests we carry out – for any specific requirements please contact sales@iaslabs.ie or phone 059 9721022.

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