



TechForce
Agronomy Services
Portfolio





ANALYTICAL SERVICES

Soil Nutrient Analysis

Using a Melich III nutrient extraction method, the soil analysis package includes a comprehensive nutrient soil analysis, which quantifies the levels of all major cations in Calcium, Magnesium, Sodium, Potassium and Aluminium, plus Phosphorus, Sulphur, organic matter and a range of trace elements including Iron, Manganese, Copper and Zinc. This service quantifies soil nutrient deficiencies and recommends remedial actions, based upon scientific calculations. This greatly assists in enhancing the performance and cost efficiency of corrective programs, whilst optimising fertiliser performance.



Irrigation Suitability Analysis

The irrigation water suitability test provides a comprehensive, turf orientated nutrient water analysis, measuring pH, conductivity, Sodium absorption ratio, adjusted SAR, RSC, pHc, cations (Calcium, Magnesium, Potassium, Sodium, Iron) alkalinity, anions (Carbonate, Bicarbonate, Chloride, Sulphur) and total dissolved salts. In addition, nutrient parameters such as Phosphorus and Nitrates are also measured to determine impact on plant nutrition. This service identifies potential hazardous elements present in the irrigation water that may ultimately impact upon turf growth. By understanding these hazards corrective strategies can be implemented to address these concerns.

Plant Tissue Analysis

The plant tissue testing service determines the concentration of plant nutrients in leaf material, measuring Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sodium, Sulphur, Zinc, Copper, Iron, Manganese, Boron and Chloride. The service is an important diagnostic tool highlighting nutritional deficiencies within the plant. This service is a useful method for monitoring and adjusting fertility programs throughout the growing season.

Soil Physical Analysis

TechForce offers a comprehensive range of physical soil testing. These include, but are not limited to the following services:

- > Particle size analysis
- > Hydraulic conductivity
- > Porosity
- > USGA and sand / gravel suitability, including bridging factors
- > Soil moisture retention curves
- > Cricket wicket soil characteristics (including cracking pattern, emerson class number and clay content)
- > Bunker suitability analysis
- > Sand, silt, clay composition

Environmental Water Analysis

TechForce offers a range of environmental water test parameters. These include, but are not limited to the following services:

- > Total Nitrogen, Phosphorus, Potassium
- > Biological Oxygen demand, Ecoli, Faecal coliform content
- > Suspended solids
- > Algae identification and count
- > Pesticide contamination
- > Heavy metal contaminants

Customised environmental water testing for specific requirements can also be undertaken.

Heavy Metal Analysis in Soil

A comprehensive heavy metal analysis can be undertaken to determine presence and potential obstruction to plant growth. The heavy metals tested are as follows:

Al, As, B, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Sb, Se, Sn, Th, Tl, U, V, Zn.

DNA Analysis or Genotyping Plant Tissue

TechForce can offer DNA Analysis or Genotyping of plant tissue or seed. This service is customised depending upon specific requirements. This service has been used previously to identify specific turf types and or varieties found in a turf management situation. For more information on this service please contact TechForce or your sales representative.



DIAGNOSTIC SERVICES

Complex (Cultured) Disease Diagnosis

Using a complex disease diagnostic Service is a process where suspected plant material (leaves, thatch and roots) is added to agar (dextrose) a sugar which is a simple food source for plant pathogens to consume and grow upon quickly. Culturing the disease out in this manner, provides an accurate indication of pathogen occurrence and overall activity within the suspected diseased plant tissue. Cultured disease analysis is generally considered more accurate than microscopic examination techniques.

Microscopic Disease Diagnosis

The microscopic disease diagnostic service provides a detailed and visual review of disease activity within the key plant parts. The disease diagnosis identifies disease presence and quantifies the severity of the pathogen's infection. A wholistic approach is used when discussing control, taking into account cultural, managerial and fungicidal options, providing the turf manager with the knowledge and means to make effective disease management decisions.



Nematode Diagnostic Services

The nematode diagnostic service provides a quantitative count of both endo and ecto parasitic nematodes present in soil and root tissue and features a turf root health assessment, outlining where nematode activity has impacted upon root growth. The assessment is undertaken using a nematode hazard index rating scale, a calculation which takes into account the population of parasitic nematodes present and the pathogenicity that each particular nematode has on the root system.

Root Health Reporting

The root health assessment provides a quantitative analysis on root zone attributes including root colour, deterioration, functionality and length, thatch depth, nematode and pathogen presence. This service serves as a great monitoring tool prior to or during stressful growing conditions.



Mite & Insect Identification

The Mite and Insect Identification service confirms the presence of insect pests within plant tissue. The mite identification also provides a quantifiable count of the populations present. This service provides the turf manager with an understanding of the pest and how environmental and cultural factors may impact upon their occurrence. Both remedial and preventative control programs are provided to limit future problems.

Weed Identification Services

This service identifies your difficult to identify key weeds and outlines potential control options for your specific situation. Photographs are used where possible to outline significant identification characteristics. Control programs can also be provided to limit future problems and make management of the weed more effective and stress free.

Herbicide Resistance Testing

The herbicide resistance quick-test is a simple method by which plants (grasses and some broadleaf weeds) growing in your turf / industrial situation can be grown on in a controlled environment, treated and then screened for selected herbicidal activity – identifying any potential resistance issues. These results confirm herbicide resistance and / or sensitivity to your most problematic weed, allowing you to better select and rotate between chemistries to achieve your best result. Pre-emergent herbicide testing can also be screened.

Chemical Residue Testing

A range of chemical residue testing can be performed and analysed by TechForce, based upon specific requirements. These test packages include, but are not limited to the following:

- > Multi Residue Scan – includes organochlorine and organophosphates in soil
- > Extended Residue Scan – 160 compounds
- > Phenoxy Acids
- > Carbamates
- > Sulfonyl Ureas
- > Synthetic Pyrethroids

Customised residue testing for specific requirements can be undertaken. For more information, please contact TechForce or your sales representative.

CONSULTANCY SERVICES

Projects that TechForce have been involved with previously are outlined below:

- > Sportsfield assessment
- > Sportsfield construction and establishment
- > Program maintenance planning and implementation
- > On-site plant pathogen identification and monitoring (microscopic) and programming support
- > Noxious weed surveys
- > Weed management plans
- > Turf farm auditing and reviews of management practices
- > Shade management surveys
- > Pest management programming
- > Soil and water management & improvement strategies
- > Training and educational support
- > Contract product development and research



About Us

Indigo Specialty Products is a privately-owned business, formed and owned by a small team of industry professionals with extensive experience in manufacture, distribution, development and product registration. We are a business focused on production & supply of plant protection, pest control, plant nutrition, soil, water management & biological products. Specialising in Australasian non-crop and niche horticultural markets, including Turf & Amenity, Nursery Production, Industrial Vegetation Management, Forestry, Pest Control and Consumer Home Garden & Pest Management.



Formulated in Australia

Our goal is to manufacture the Indigo product ranges in Australia as much as possible, where we can oversee product quality processes, whilst allowing us the flexibility to modify products to overcome ever changing challenges. Our ProForce and HydroForce range of products will be formulated in Australia using imported materials. Our Xcel Fertiliser and BioForce Biological range will be manufactured in Australia to the highest possible standards.



Developed & Researched for local conditions

We are heavily focused on local research and development to ensure our products perform at their peak in the Australian markets. We actively invest in field trial research programs and modify our formulations to match the local conditions of the key markets in which we operate to maximise performance.



Focused on Specialty markets

We strive to be relevant in our core markets, by adding value via overcoming issues and obstacles that are present in the markets we operate within. We do this by focusing on control of key pests or diseases or by solving key management issues that our valued end user customers have. We also strive to be active in the core markets in which we operate by working closely with our allied distributor network, offering support, service and advice where required.



Diagnostic Services

We offer a complete diagnostic services package, known as TechForce, designed to evaluate and identify key agronomic problems, so we can be better informed in recommending products for the specific situation. We also believe that by offering these services, our customers and users of our products can evaluate performance of the portfolio in a quantifiable and scientific approach. We use some of Australia's leading laboratories in delivering results for our services including Phoyson Analytical, Westgate Labs, Biological Crop Protection and Royal Botanic Gardens.