



**Agpath**  
Agricultural Pathology &  
Biological Farming Service  
Agricultural Consultants since 1980

## **Details of Individual Assays and prices that can be undertaken on your samples.**

These prices are per sample/per plate/substrate/swab.

### **Identification of Fungal Cultures (\$85.00)**

This price applies to fungal species in pure culture where an identification to genus can be made directly from the culture.

### **Identification of Fungal Cultures from a substrate or swab (\$330.00)**

This price applies when isolation is required from a substrate where surface sterilisation may be needed and material may need to be cut from material provided to be cultured onto specialised media and incubated before identification of species is possible. For example: rusts, cankers, gummosis, Fusarium, Verticillium, Rhizoctonia, Botrytis, Alternaria, Stemphylium species.

### **Identification of Protistas from soil and water (\$75.00)**

This category includes the water moulds such as Phytophthora and Pythium species, algae in water supplies. This means all of the access points for the sample submission forms will need to be checked and updated.

### **Identification of Fungal Cultures to species (additional \$55.00)**

This price applies where an identification to species is requested.

### ***E.coli*, Total coliforms, Total counts (\$75.00)**

This laboratory is not NATA registered but it can carry out the same tests using similar standards for samples where the report does not require the NATA logo. *E.coli* can be isolated from any substrate where faecal contamination may be suspected. Total coliforms from any substrate give an idea of other potential contamination from faecal sources. Total counts give a value for total culturable population of microbes in a sample.

### **Identification of Bacterial Species (\$440.00)**

This price applies to bacterial species where identification to genus and/or species is required. This may require sending to a second laboratory for full identification.

### **Identification of Mushroom Species (\$80.00)**

This price applies wild mushrooms collected for eating or to assess their toxicity status. Many Australian mushrooms are unknown for edibility so it is prudent to not eat any mushroom collected without a definite identification. Some Australian mushrooms look very similar to European mushrooms but are very different and may be toxic.

### **Salinity Testing (\$35.00)**

This price applies to water from streams, dams, bores, wells or drains that is required for drinking by humans or animals or for agriculture/horticulture and which may be suspected of containing salt.

### **Microscope Instruction (\$330.00)**

This price is per person for a day of in depth tuition in how to use and care for a microscope to obtain the maximum benefit regardless of the quality of the optics. Identification of microbes including fungi from compost, soil and compost tea is covered.



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### **Total Bacteria: (TB) \$47.50**

The optimal bacterial biomass in the soil varies according to crop, climate and season; if it is not within this range, bacterial inocula or foods may be required.

### **Total Fungi: (TF) \$42.00**

As with bacteria, the optimal range varies according to crop, climate and season, and may require amendment if outside this range.

### **Active Bacteria: (AB) \$42.00**

Only that percentage of the bacteria which are currently metabolising organic compounds are directly nourishing the plants; if this portion is too low, bacterial foods may be required to stimulate the dormant population.

### **Active Fungi: (AF) \$42.00**

As with bacteria, only those fungi which are currently growing and metabolizing are directly nourishing the plants, so the dormant part of the population may need feeding if the activity is low.

### **Protozoa: (Prots) \$75.00**

These large single-celled organisms feed upon bacteria and excrete nitrogen in the plant available form of ammonium, so are essential to healthy plant growth. One morphological group, the Ciliates, feed preferentially on anaerobic bacteria, so a high ciliate population may indicate anaerobic conditions which need to be addressed.

### **Nematodes: (Nem) \$95.00**

A very large group of very small worms, these are everywhere on earth. Of the soil-dwelling species, some cause significant crop damage, some prey on other nematodes, and most graze on bacteria and fungi, cycling nitrogen in plant available form. We count the number in a given weight of soil, and identify them to genus and function.

### **Mycorrhizal Colonization: (VAM) \$72.00**

Over 90% of all plants of Earth form symbiotic relationships with mycorrhizal fungi. These fungi increase the nutrient uptake capacity of the plant and protect it against pathogens. We determine what percentage of your roots are colonized, and also look for signs of disease and other damage.

### **Qualitative Assessment: (QA) \$85.00**

This fast evaluation does not provide actual counts or biomasses of organisms, but based on a visual scan of populations tells you whether your bacteria, fungi, protozoa and nematodes are present in excellent, good, adequate or poor numbers.

### **E. coli: \$42.00**

This common intestinal bacteria has some disease-causing strains, and is an indicator of the presence of other harmful bacteria. We evaluate the number of Colony Forming Units per gram of compost or millilitre of compost tea, to let you know if levels are within or above accepted limits for agricultural fertilizers.

### **Leaf Organism: \$55.00**

This test determines the effective coverage of organisms on the leaf surface, very useful for before and after comparisons of foliar applications of Compost Tea. Adequate coverage of leaf surfaces helps to reduce disease and pests.

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