

### **IN THE LABORATORY**

#### **Diagnosis of fungal and bacterial plant health problems – arable, forage, horticulture, turf**

Fungi – by isolation to agar media, identification by morphology/microscopy or by DNA sequence analysis when required

Bacteria – by isolation to agar media, biochemical tests, DNA sequence analysis

#### **Plant virus testing and nematology (some tests sub-contracted)**

##### ***Phytophthora* testing**

We are specialists in *Phytophthora* testing and identification from plant material and soil including morphological and molecular identification

##### **Plant pathogens on seeds**

Identification of specific issues

General pathogen screen of seed line

##### **Plant pathogens in water**

Quantification by dilution plating, membrane filtration, baiting. Identification by morphology and DNA sequence analysis

##### **Plant pathogens in soils/composts/potting mix**

Quantification by dilution plating, baiting. Identification by morphology and DNA sequence analysis

##### **Identification of food contaminants (fungal or bacterial)**

By morphology and DNA sequence analysis

##### **Fungicide resistance testing**

Orchards, in particular for *Botrytis cinerea* (grey mould) on summerfruit, berryfruit and grapes and *Monilinia fusicola* (brown rot) on summerfruit. Possible testing of other crops by arrangement

##### **Contract research projects in laboratory based plant pathology**

### **IN THE FIELD or GREENHOUSE**

#### **Conducting greenhouse pot trials for fungicide/biocontrol evaluation (includes *Pythium* and *Rhizoctonia*)**

##### **Field trial support**

Production of fungal or bacterial inoculum

Disease assessment of trials

Disease diagnosis and confirmation

Participation in wider industry and government funded plant disease related research projects including collaboration with other research providers

##### **Field consultancy visits to discuss and identify plant health issues**

##### **Disease Surveys for industry groups**

##### **Participation in field days**

### **IN THE OFFICE**

#### **Assessment of fungicide trial data pending registration application**

#### **Technical expert (Biological Testing) for International Accreditation New Zealand (IANZ)**

##### **Preparation of scientific reports**

##### **Editing of scientific reports (Mark Braithwaite, Senior Editor for Australasian Plant Pathology)**