

# Plant Diagnostic Service

Ashtown Food Research Centre  
Dublin 15

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# History

- Since early 1970's
  - Ted Ryan, Fionbhar O' Riordan
  - Kinsealy
- Helen Grogan from 2005
- Brian McGuinness from 2008
- Moved to Ashtown campus in June 2012



# Samples

About 200 samples annually:

- Fruit, Vegetables, Forestry, Nursery Stock, Ornamentals, Protected crops, Mushrooms
- Disease identification service
- Insect identification service
  - Michael Gaffney, AFBI, DAFM



# Sample submission

- Samples are submitted through your Teagasc advisor
- Samples are analysed by various means to identify the cause of symptoms
- Results sent to your Advisor and he/she recommends a course of action.



## Types of identification service



### Level 1- Basic

- Initial assessment of Symptoms/Pests/Pathogen
- Sample is physically checked for pathogen growth
- Pathogen/pest examined microscopically
- Basic identification of pathogen is possible
- Report prepared



# Types of I.D.

## Level 2

- Detailed microscopic identification to species level may be necessary
- Pure culture isolated onto suitable media for further detailed identification.
- This can take one-four weeks



## Types of I.D.

### Level 3

- Molecular identification

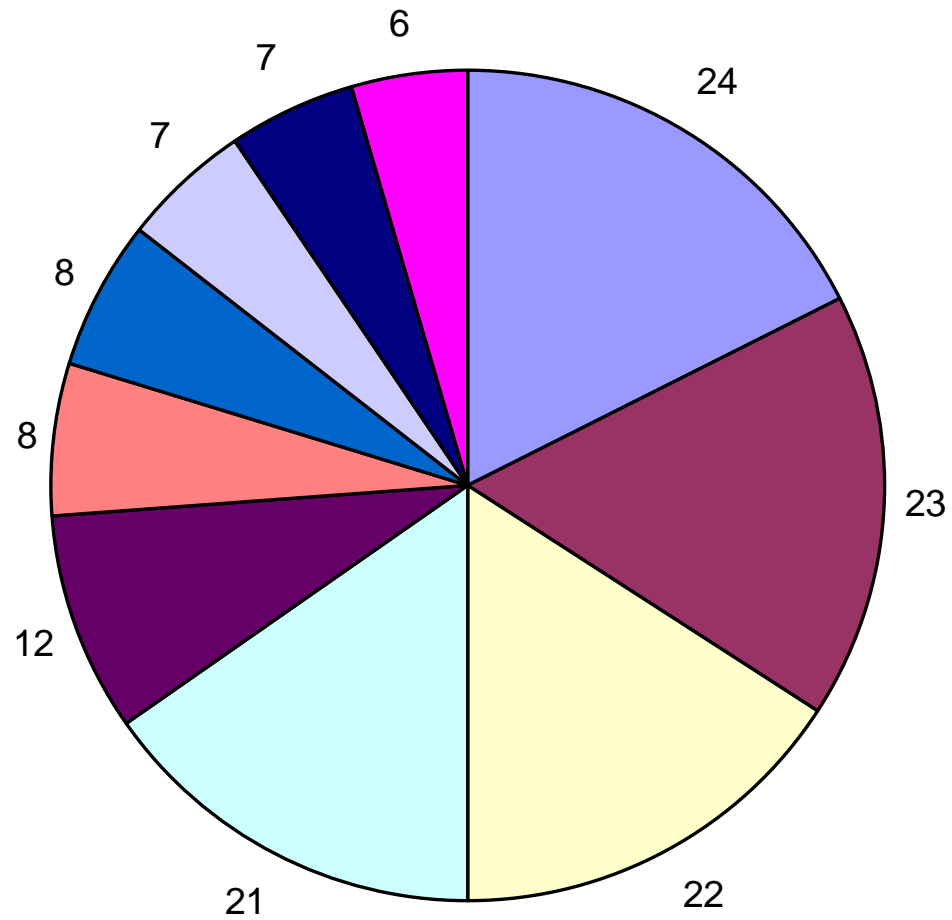


Also:

- Quick identification by LFD (Lateral Flow Device)
  - *Phytophthora*
  - *Pythium*
  - *Erwinia*



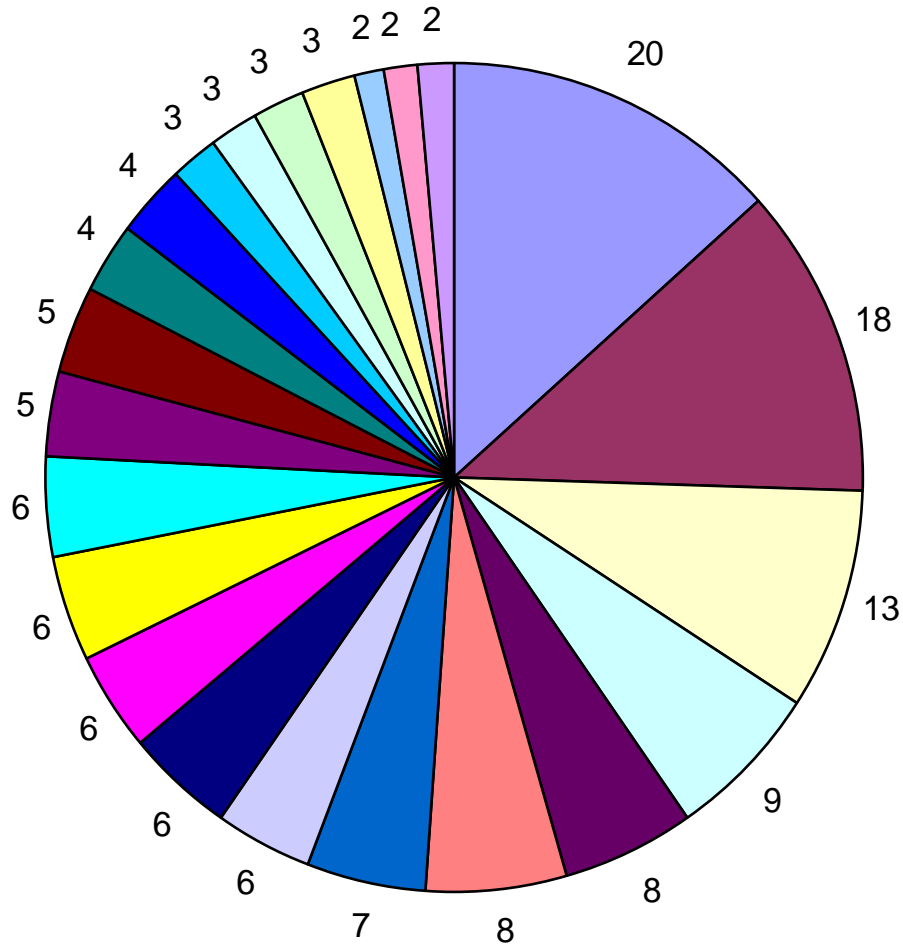
## Most common veg. samples since 2006



- Onion
- Parsnip
- Cabbage
- Carrot
- Swede
- Parsley
- Spring Onion
- Cauliflower
- Turnip
- Pumpkin



## Causes of symptoms (since 2006)



- Fusarium
- Bacterial
- Itersonilia
- Sclerotinia
- Botrytis
- Downy Mildew
- Alternaria
- Frost
- Mycosphaerella
- Phoma
- Phytophthora
- Ramularia
- Insect
- Pythium
- Crown Rot
- Physical Damage
- Nutrient Deficiency
- Physiological
- Rhizoctonia
- Septoria
- Verticillium
- White blister
- Yeast

## Sample condition

If collecting samples yourself:

Try to get samples that are not too diseased

Remove excess water if possible

Wrap in newspaper

Include a description of the problem/symptoms

Variety

Sprays used.

Thanks for your time!

