

Plant Pest & Disease Identification Charges 2008-9

Arable and Field Vegetable Crops

Crop commodity testing

We can identify the vast majority of pests and diseases that occur on, or in, any plant, soil, growing media or water samples. Most of these would be identified under our standard Plant Clinic testing package. However, there are some specific tests that fall outside this package and these are listed below by crop commodity. Note: all prices are 'per sample', unless otherwise stated.

Prices are available on the following:

[Cereals](#)
[Field Vegetables](#)
[Potatoes](#)
[Sugar Beet](#)
[Soil, Compost & Growing Media](#)
[Seeds](#)
[Water](#)

See the [Notes](#) section for additional information about this price list

Cereals

Barley mild mosaic & yellow mosaic viruses* **75.00**
 Combined TaqMan test for both viruses. 5 days.

Barley yellow dwarf virus or Soil borne cereal mosaic virus
 ELISA. 5 days

	1 test	50.00
	2 tests	26.00
	3 tests	20.00
	4-5 tests	15.00
	6-10 tests	12.00
	11-20 tests	10.00
	more than 20	POA

N.B. These prices are **per test** (e.g. 2 samples x 2 viruses = 4 tests).
 Considerable further discounts are available for bulk testing (20 or more samples).

Eyespot*: speciation and quantification by TaqMan[®] PCR assay. 5 days. Contact CSL before sending large sample numbers (8+).

	1-2 samples (each)	100.00
	3-7 samples	50.00
	8 + samples	35.00

Virus vector nematodes **50.00**
Longidorus, Xiphinema. Extraction & identification. Minimum 500 g soil. 10 days.
 Flegg extraction method.

Trichodorus, Paratrichodorus. Extraction & identification. Minimum 500 g soil. 10 days.
 Two-Flask extraction method.

Free-living nematodes **56.50**
 Except virus vectors. Extraction & identification. Minimum 500 g soil. 10 days.
 Whitehead extraction method.

Cyst nematodes **35.00**
 Extraction and differentiation between PCN and non-PCN cysts. Minimum 500 g soil. 10 days.

Non-PCN
Cyst identification to group/species. Cyst morphology. **65.00**



Field Vegetables

Brassica Virus Screening*		60.00
Testing for 3 viruses (<i>Turnip mosaic virus</i> , <i>Cauliflower mosaic virus</i> , <i>Beet western yellows virus</i>) by ELISA. 5 Days. (Discount available for multiple tests - POA).		
Club root (<i>Plasmodiophora brassicae</i>)*		
	1 sample	80.00
	2 samples (each)	65.00
	3 samples	55.00
	4-6 samples	47.50
	7-10 samples	42.50
	11-25 samples	37.50
	26+samples	POA
Soil bait test & TaqMan® assay, presence/absence. 1 kg of soil/compost required per hectare. 10-14 days. 14 days notice is required before sending us samples.		
Screening package for onion sets		
<i>Botrytis</i> , <i>Fusarium</i> , <i>Penicillium</i> , <i>Aspergillus</i> , <i>Sclerotinia</i> , bacterial soft rot		
Presence/absence (2 x 300 sets)		125.00
Percentage affected (100 sets)		225.00
Identification to species (per organism)		80.00
Onion white rot (<i>Sclerotium cepivorum</i>) - soil test		
Pre-sample assessment		18.00
We will assess the type of soil and approximate numbers of sclerotia before quoting for the test.		
Sclerotia count and viability test		
5 kg of soil required. 6 weeks.		from
		120.00-
		600.00
Stem nematode in onions		
Mistifier method. Whole plant (bulb and leaves). 10 days.		40.00
Free-living nematodes		56.50
Except virus vectors. Extraction & identification. Minimum 500 g soil. 10 days. Whitehead extraction method.		
Stubby root nematodes		50.00
<i>Trichodorus</i> , <i>Paratrichodorus</i> . Extraction & identification to type. Minimum 500 g soil. 10 days. Two-flask extraction method.		
Cyst nematodes		35.00
Extraction and differentiation between PCN and non-PCN cysts. Minimum 500 g soil. 10 days.		
Non-PCN		
Cyst identification to group/species		
Cyst morphology.		65.00

Potatoes

Standard growing on test for virus

120 tubers. 6-8 weeks.

Potato virus Y (all strains) only.

105.00

Potato virus Y & Potato leaf roll virus.

120.00

Extra viruses (each). PVX, PVS, PVA, PVV, PVY-N, PMTV

15.00

The [application for post-harvest testing of potato tubers](#) must be completed and submitted with your sample/s when requesting this service.

Rapid direct tuber test for virus*

250.00

120 tubers. *Potato virus Y* (all strains). 5 days.

Extra viruses (each). PVX and *Potato leaf roll virus*.

65.00

(PVA & PVV under development – please enquire).

The [application for post-harvest testing of potato tubers](#) must be completed and submitted with your sample/s when requesting this service.

Spraying *

75.00

Tobacco rattle virus & Potato mop top virus in tubers with symptoms. TaqMan. 5 days.

Soft rotting bacteria (average tuber inoculum load)

80.00

Total count of soft rotting bacteria. 100 tuber sample. 2 weeks.

Identification and quantification of soft rotting bacteria causing black leg (*Pectobacterium atrosepticum*) and slow wilt (*Erwinia chrysanthemi* = *Dickeya* spp.) * 100 tuber sample. 3 weeks.
Costs per sample:

1 sample	160.00
2-samples (each)	145.00
3 samples	135.00
4-6 samples	127.50
7-10 samples	122.50
11-25 samples	117.50
26+ samples	POA

Potato Brown rot and Ring rot

130.00

Individual or combined test. 210 tubers. 5 days.

Potato wash water

Total count of soft rotting bacteria. 500 ml. 3 days.

30.00

Identification of soft rotting bacteria causing black leg (*Pectobacterium atrosepticum*) and slow wilt (*Erwinia chrysanthemi* = *Dickeya* spp.). 5 - 10 days.

60.00

Tuber blemish diseases

125.00

Visual assessment, % coverage (silver scurf, black scurf, skin spot, scab (see below for further scab testing), blackdot, and greening). 50 tubers. 10-14 days.

Gangrene latent test

125.00

50 tubers required. 13 weeks.

Rhizoctonia Anastomosis Group typing

250.00

1 kg of soil. 3-4 weeks.

Scab, powdery and common

Visual examination.

60.00

3 days.

Visual examination and TaqMan® PCR assay*

100.00

5 days.

Soil test for powdery scab (*Spongospora subterranea*)*, or **Spraing - *Potato mop top virus**, or **Spraing - *Tobacco rattle virus******

Soil bait test & TaqMan® PCR assay. 1 kg of soil required per hectare. 4 weeks.
Please contact us before sending samples. Cost per sample:

1 sample	100.00
2 samples	75.00
3-4 samples	50.00
5-7 samples	40.00
8 or more samples	35.00
Additional soil preparation charge for heavy soils	25.00

Spraing - *Tobacco rattle virus* & *Potato mop top virus* combined test*, or
Powdery scab (*Spongospora subterranea*) & *Potato mop top virus* combined test*

Please see [Soil Sampling Protocol](#)

Soil bait and TaqMan® PCR assay. 1 kg of soil required per 4 ha area. 4 weeks. Please contact us before sending samples. Cost per sample:

1 sample	120.00
2 samples	95.00
3-4 samples	65.00
5-7 samples	55.00
8 or more samples	45.00
Additional soil preparation charge for heavy soils	25.00

Potato Cyst Nematodes (PCN) †

Extraction and differentiation between PCN and non-PCN cysts. **35.00**
Minimum 500 g soil. 10 days.

Cyst identification to species **35.00-60.00**
PCR/morphological identification. Method used, and cost will depend on number of cysts and number of samples submitted at one time. Please contact Tom Prior on 01904 462206 to discuss your requirements before sending samples.

Number of eggs per gram of soil **30.00**

Spraing vectors in soil **50.00**

Stubby root nematodes – *Trichodorus*, *Paratrichodorus*. Extraction & identification to type. Minimum 500 g soil. 10 days. Two-flask extraction method.

Root-knot nematode **from 90.00**
In tubers or roots. Please contact us before sending samples.

If negative 30.00

Sugar Beet

Beet necrotic yellow vein virus (BNYVV, Rhizomania in soil)

1 litre of soil required. 8 weeks. Cost per sample:

1 sample	100.00
2-4 samples	60.00
5 or more samples	45.00

Beet necrotic yellow vein virus (BNYVV, Rhizomania in plant material)

ELISA. 5 days. Cost per sample:

1 sample	50.00
2 samples	26.00
3 samples	20.00
4-5 samples	15.00
6-10 samples	12.00
11-20 samples	10.00
more than 20	POA

N.B.

Considerable further discounts are available for bulk testing (20 or more samples). 5 days.

Free-living nematodes

56.50

Except virus vectors. Extraction & identification. Minimum 500 g soil. 10 days.
Whitehead extraction method.

Virus vector nematodes

50.00

Longidorus, *Xiphinema*. Extraction & identification. Minimum 500 g soil. 10 days.
Flegg extraction method.

Trichodorus, *Paratrichodorus*. Extraction & identification. Minimum 500 g soil. 10 days.
Two-Flask extraction method.

Cyst nematodes

35.00

Extraction and differentiation between PCN and non-PCN cysts. Minimum 500 g soil. 10 days.

Potato Cyst Nematodes (PCN) †	
Extraction and differentiation between PCN and non-PCN cysts.	35.00
Minimum 500 g soil. 10 days.	
Cyst identification to species	35.00-
PCR/morphological identification. Method used will depend on number of cysts and number of samples submitted at one time. Please contact Tom Prior or on 01904 462206 to discuss your requirements before sending samples.	60.00
Number of eggs per gram of soil	30.00
Non-PCN	
Cyst identification to group/species	
Cyst morphology	65.00

Seeds

Costs, numbers of seeds and timings vary depending on the type of seed and the level of testing required. Please contact our Plant Clinic Customer Helpline on 01904 462324 to discuss your requirements.

Germination	from
Standard germination test	160.00
Fungal diseases	from
General test for the presence of one or more pathogens We can test for a range of fungi, including <i>Ascochyta</i> , <i>Colletotrichum</i> , <i>Fusarium</i> , <i>Alternaria</i> , <i>Botrytis</i> , <i>Didymella</i> and <i>Phoma</i> spp.	80.00
Specific tests:	from
<i>Ascochyta pisi</i> – pea/bean / <i>Fusarium</i> spp. (cereals)	56.50
<i>Diaporthe helianthi</i> – sunflower / <i>Fusarium oxysporum</i> special forms (e.g. <i>F. oxysporum</i> f.sp. <i>basilici</i> - basil), Anthracnose of lupin/bean	80.00
<i>Didymella ligulicola</i> – Chrysanthemum ray blight / <i>Phoma lingam</i> – Brassica spp.	125.00
Test for accurate % presence of pathogens	from 125.00
Bacterial diseases	110.00
Detection & confirmation to species of specified pathogenic bacteria. 2 – 3 weeks.	
Virus diseases (tested by ELISA or TaqMan®)	85.00
<i>Lettuce mosaic virus</i> 2000 seeds. 8 days.	
<i>Pea seedborne mosaic virus</i> 200 seeds. 5 days.	85.00
<i>Tomato mosaic virus</i> 300 seeds. 5 days.	85.00
<i>Pepino mosaic virus*</i> 300 seeds. 5 days.	85.00
<i>Potato spindle tuber viroid*</i> 300 seeds. 5 days.	85.00
Non-destructive tomato seed testing for seed-borne viruses	
Developed in partnership with the Horticultural Development Council (HDC). 500 seeds per test; after testing the seeds will be re-dried and returned. Contact the Plant Clinic for more details.	
Three tests are currently available:	
1. <i>Pepino mosaic virus</i> (Peruvian, tomato and US2 strains)	
2. <i>Tomato mosaic virus</i>	
3. Tomato-infecting viroids including <i>Potato spindle tuber viroid</i>	
Test for 1 pathogen:	
1 sample (£20.00 for each extra pathogen)	100.00
2-3 samples (£16.00 for each extra pathogen)	80.00
4-5 samples (£13.00 for each extra pathogen)	67.00
6-7 samples (£11.00 for each extra pathogen)	60.00
8 or more samples (£9.00 for each extra pathogen)	53.00
A standard discount of 33% will be applied to the listed prices for HDC levy-payers (membership registration numbers must accompany service requests for non-destructive tomato seed testing for seed-borne viruses.)	
Qualitative analysis for the detection of licenced GM rapeseed	240.00
200 g (the recommended number is at least 3000 seeds). We prefer to receive undressed seed. 5 days.	
Nematodes	35.00
(e.g. Stem Nematodes) Baermann method. 10 days.	

Water

Irrigation water for Potato Brown rot	200.00
500 ml. 8 sample package of routine monitoring (weekly).	
Potato wash water	
Total count of soft rotting bacteria. 500 ml. 3 days.	30.00
Identification of bacteria. 5 - 10 days.	60.00
Irrigation water quality test (bacteria)	
Total bacterial count. 5 days.	60.00
Identification of specified pathogenic bacteria (cost per isolate). 5 - 10 days.	30.00
Water test (<i>Phytophthora</i> & <i>Pythium</i>)	
1 litre. 2 weeks.	80.00
Monthly screening package.	600.00

Notes:

- Prices are valid until 31 March 2009 and are correct at the time of going to press. They are in GB pounds (£) and are exclusive of VAT.
- Times given refer to working days or weeks.
- Unless otherwise indicated, these prices are 'per sample'. A 'sample' is defined as a unique unit sent in for examination of the same problem. A unit can be a single item (plant, plant part, soil, etc.), or multiple items of the same variety, taken from the same location and exhibiting the same problem. In the case of plants or produce, a sample should comprise 2 or 3 items showing a range of symptoms along with a couple of healthy looking items for comparison. Totally dead material should not be submitted for testing.
- * Items include a 20% royalty to Applied Biosystems.
- † Services have been accredited by the United Kingdom Accreditation Service to BS/EN/ISO/IEC 17025:1999 *General Requirements for the Competence of Testing and Calibration Laboratories* for tests detailed in the schedule of accreditation number 1642 (available at www.ukas.org).



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