

Seed Potato Classification Scheme/Approved Stock Scheme

Explanatory Leaflet

Please read this leaflet carefully before completing an application form

Contents	Paragraph(s)
Introduction.....	1–3
Applications	4–5
Classes.....	6–9
Organic seed production	10
Fees.....	11–13
Plant breeders' rights.....	14
Disclosure of information.....	15
Protected region	16–17
Growing areas	18–19
Statutory pests and diseases	20
Rhizomania protected zone.....	21–22
PCN testing	23
Eligible varieties.....	24
Eligible stocks.....	25–30
Growing season inspections.....	31–35
Aphid control.....	36
Burning off	37–38
Classification, certification and approval	39
Tuber virus indexing service	40–42
Tuber inspection	43
Disease and damage.....	44–45
Size and variety	46–48
Official labelling and sealing	49–55
Use of fungicides and sprout suppressants on potato tubers	56
Labelling of chemical treatments.....	57
Storage of tubers	58
Records	59
Separate particulars	60
SPCS Register of growers.....	61
Complaints procedure	62
Plant Health Information.....	63
Schedule of Fees.....	Annex 1

Introduction

1. The Seed Potato Classification Scheme (SPCS) provides for growers in England and Wales to have their seed potato crops classified in accordance with domestic and EC legislation. Under these Regulations, it is an offence to market any seed potatoes which have not been officially classified as pre-basic, basic or certified seed potatoes in accordance with the specified requirements. Copies of the Regulations in force may be purchased from HMSO or are available on the HMSO website at www.hmso.gov.uk. The official certification bodies in England and Wales are The Food and Environment Research Agency (Fera) and the Welsh Assembly Government (WAG).
2. The SPCS provides for classification at various classes depending on the class of the parent seed and the health of the crops in the growing season and of tubers after harvest (based on visual inspection). Similar but separate schemes operate in Scotland and Northern Ireland.
3. The Approved Stock Scheme (AS) is run in parallel with Fera's SPCS. New varieties which have been entered for National Listing may be entered into the AS. Stocks will receive the same inspections and be required to meet the same standards as those applicable to the SPCS. Stocks will be 'approved' rather than 'certified' at whatever grade is achieved. When the variety has achieved National Listing, the stocks may be entered into the SPCS. Under Commission Decision 2004/842/EC, authorisation may be granted to market stocks which have been entered for National Listing. Please indicate on your application form if you are intending to market such stocks. Under the Decision, the quantity of AS stocks of a particular variety that may be marketed in a member state is limited to 0.1% of total seed production in that member state. You should therefore be aware that it may not be possible to grant authorisation to market your stocks if this limit has been reached.

Applications

4. Applications may be made by growers or by holders of plant breeders' rights who wish to enter crops produced by others on their behalf. Please complete a separate application form in full for each crop and return it to your local Fera Plant Health and Seeds Inspector as soon as possible and **not later than 15 May** (those received after this date may be rejected). If planting arrangements are unlikely to be completed by the closing date, please apply on the basis of the *estimated* area to be planted.
5. Application forms can be obtained from your local Fera Plant Health and Seeds Inspector. Contact details for all our offices are available on the Fera website at www.defra.gov.uk/fera/contactUs/contactPIh.cfm. They can also be downloaded from the Fera website at www.defra.gov.uk/fera/plants/forms/plantHealthForms.cfm

You may also apply on-line – see edomero.defra.gov.uk or contact your local Fera Plant Health and Seeds Inspector for details.

Classes

6. Seed potatoes are given a national class and, in the basic category under the SPCS, may also be given a European Community grade (this is obligatory if they are marketed in the protected region). This leaflet describes the conditions for the classification/approval of the following classes.
7. **Pre-basic TC (tissue culture) and Pre-basic (field grown)**. Pre-basic material may be produced for a maximum of five years (maximum of four years in soil) from the original source material. Pre-basic TC material must be grown in isolation from soil.
NB: Pre-basic has not yet been allocated a Community Grade but **may** be marketed in the protected region.
8. **Basic and certified grades**
 - **Super Elite and Elite**, which approximate to Community grade EC 2;
 - **A**, which approximates to Community grade EC 3;
 - **CC**, which as a certified class is ineligible for an EC grade.
9. **Note:** Stocks entered into the AS scheme are given the same classes/grades but with an 'AS' suffix.

Organic seed production

10. Stocks produced organically must meet the same tolerances at field and tuber inspections as other stocks. Details of organic crops will be identified in the SPCS Register of Growers if you indicate agreement on your application form.

Fees

11. Fees are payable for crop and tuber inspections and provision of labels and seals. They vary according to the scheme and the area and class entered.
12. The current fees are shown on the attached schedule. Fera will send the applicant an invoice for the amount due following the inspection(s).

Do not send payment with your application.

13. Charges for Fera's optional tuber virus indexing service are set out at paragraph 41.

Plant breeders' rights

14. You are reminded that it is your responsibility to ensure that you have obtained all necessary consents to grow varieties of potato which are subject to plant breeders' rights. You should not enter crops for classification at any class other than that permitted by the plant breeder's licence.

Disclosure of information

15. Requests for disclosure of information will be considered in accordance with the Freedom of Information Act, the Environmental Information Regulations and the Data Protection Act, which may in some cases require us to disclose information. Without limiting this general approach, where crops of protected varieties are entered for classification Fera will make available to holders of the plant breeders' rights and their representatives the name and address of the applicant, as well as the variety, grade and area entered, either where applicants have given Fera/WAG explicit consent to release this information to the BSPB under the terms of their licence or where, even without consent, this is in accordance with the law (for example, where it is clear that disclosure would be necessary to pursue an infringement of plant breeders' rights). Again without limiting our general approach, in the case of requests concerning the eligibility of stocks for the BPC's Safe Haven Scheme, the certificate number of

the relevant parent stock (i.e. the stock that was first entered into the SPCS) will be provided, to allow the stock's provenance to be traced.

The protected region

16. The protected region comprises the counties of Northumberland (excluding the districts of Blyth Valley and Wansbeck) and Cumbria (excluding the districts of Barrow-in-Furness and South Lakeland).
17. If you are unsure whether your agricultural unit falls within the protected region, please contact your local Fera Plant Health and Seeds Inspector.

Growing areas

18. **Pre-basic TC** – Multiplication of microplants must take place in a laboratory acceptable on both technical and administrative grounds to Fera or WAG and under the supervision of a Fera Plant Health and Seeds Inspector. This material may then be grown on under protection or in the open air to produce pre-basic TC but must be isolated from soil.
19. (a) **Pre-basic** (field grown), **SE and E**: May be produced in any area of England and Wales.
(b) **A**: May be produced in any area of England and Wales. However, in the protected region, stocks must be grown from seed potatoes classified no lower than Elite class.
(c) **CC**: May be produced in any area of England and Wales **except** the protected region.

Statutory pests and diseases

20. You **must not** grow crops for classification/approval:
 - on any land which is subject to a statutory notice declaring it to be contaminated with, or in a safety zone for, **potato wart disease**;
 - on land which is subject to a statutory notice declaring it to be contaminated with **potato cyst nematode (PCN)**. Information on de-scheduling land can be obtained from your local Fera Plant Health and Seeds Inspector;
 - (pre-basic TC stocks) in any growing medium unless it has been officially tested and found free from PCN prior to planting taking place (except in-vitro multiplication).

Rhizomania Protected Zone

21. As a result of the ending of the Rhizomania Protected Zone in Great Britain, any field to be used for seed potatoes on a farm where rhizomania is known to occur will require a soil test to qualify the potatoes for ZP-d1 status, unless the potatoes are washed free of soil. Please contact your local Fera Plant Health and Seeds Inspector for details of the soil test.
22. On farms where rhizomania has not been found, ZP-d1 certification will be issued for fields where no crop of beet has been grown since 2002.

PCN testing

23. Land is eligible for entry if it has been satisfactorily tested within the last 4 years and no potatoes or other PCN host crops (tomato and aubergine) have been grown on it since the certificate was issued. For details of official soil sampling, please contact your local Fera Plant Health and Seeds Inspector.

Eligible varieties

24. **SPCS:** Only varieties on the *UK National List of Plant Varieties* or in the *European Community Common Catalogue* are eligible for entry. Your local Fera Plant Health and Seeds Inspector will advise whether any particular variety is currently eligible for entry. Varieties very similar in appearance may not be grown on the same holding because of the difficulties of identification of plants and tubers.

AS: Varieties awaiting National Listing or entry in the EC Common Catalogue may be entered into the Scheme.

Eligible stocks

25. The table on page 5 shows for each class the UK parent stocks from which they may be produced and the general requirements in respect of rotation, isolation and inspection. The prime source of reference on the classification status of seed potatoes is the classification label attached to that seed however, in assessing isolation requirements, for crops grown from seed classified in the UK it is permitted to refer back to the classification results published in the different authorities registers.
26. Crops grown from seed potatoes produced in other Member States which have been given only a national class may be entered into the SPCS as follows:

Member State	National class*	Eligible for entry into the SPCS at:*
Austria	Basic grade	CC
Belgium	S SE E	Elite 1 A A
Cyprus	*	*
Czech Republic	*	*
Denmark	SE E	Elite 1 A
Estonia	*	*
Finland	E1, E2, E3	A
France	SE E	A A
Germany	S SE E	Elite 1 A A
Greece	Basic	ineligible
Hungary	*	*
Irish Republic	Parity with SPCS (note FS = PB3+4 and H = A)	
Italy	EC grades only: see para 30	
Latvia	*	*
Lithuania	*	*
Luxembourg	SE E	CC CC
Malta	*	*
Netherlands	S SE E A	Elite 1 Elite 1 Elite 1 CC
Poland	*	*
Portugal	Pre-basic SE E	Elite 1 A CC
Slovakia	*	*
Slovenia	*	*
Spain	SE E	A A
Sweden	S SE E	Super Elite 1 Elite 1 A

* Please contact your PHSI before planting

27. Approved Stocks produced in other member states may be eligible for entry to the SPCS on achieving National Listing. Please contact your local Fera Plant Health and Seeds Inspector for advice.
28. Certified seed produced in other Member States may enter the SPCS at the CC grade.
29. **Important:** Seed potatoes produced in other EC countries may need to be tested for potato brown rot (*Ralstonia solanacearum*) and potato ring rot (*Clavibacter michiganensis*). Please notify your local Fera Plant Health and Seeds Inspector if you intend to plant any stocks from other member states **before planting**.
30. If stocks from other Member States have been given only an EC grade, they may be entered into the SPCS as follows:
 - EC 1 or 2 – Elite 2
 - EC 3 – A, or CC outside the protected region
 If stocks have both an EC grade and a national class which indicate entry at different levels, they may enter at the higher class shown opposite.

CONDITIONS FOR ELIGIBILITY OF STOCKS

CONDITIONS	Pre-basic TC	Pre-basic 1 – 4	Super Elite	Elite	A	CC
Eligible UK parent stock	Stock must derive from tested tubers or microplant cultures supplied by SASA or another source acceptable to Fera For microplant cultures the entry must carry a reference number that relates to the laboratory production and to the original SASA or other material		(2)(7) 'Pre-basic' or 'Super Elite' certificate/approval previous year	(3)(7) 'Pre-basic', 'Super Elite' or 'Elite' certificate/approval previous year	(7) 'Pre-basic', 'Super Elite', 'Elite' or 'A' certificate/approval previous year	(7) 'Pre-basic', 'Super Elite', 'Elite', 'A' or 'CC' certificate/approval previous year
Rotation		7 full years	5 full years	5 full years	5 full years	4 full years
Minimum isolation	No potato material other than that derived from tested tubers or microplant cultures from SASA (or another acceptable source) shall be grown on the unit, nor any other material of the species solanaceae					
(a) From other stocks entered into either Scheme of the SAME class. (4)	Sufficient to prevent admixing of varieties at planting or harvest: <ul style="list-style-type: none"> • minimum 1 drill width for stocks planted in adjacent rows running in the same direction; • minimum 5 metres where different varieties are planted in the same row; • minimum 5 metres recommended where different varieties are planted at an angle to each other (e.g. headlands) 					
(b) From seed potato stocks entered to produce lower classes (6) (9)		<ul style="list-style-type: none"> • HS from SE • 50m all other classes 	<ul style="list-style-type: none"> • HS from E • HS from A if crop planted with seed classified at E or SE. • 50m all other classes 	<ul style="list-style-type: none"> • HS from A if crop planted with seed classified at E or SE. • 50m all other classes 	<ul style="list-style-type: none"> • 10m CC 	
	(HS = harvest separation, sufficient to give adequate separation at harvest (i.e. one bed, one row or 1 metre as appropriate))					
(c) From ware crops planted with PB, SE or E seed (5)		50m	10m	10m	10m	10m
(d) From ware potato crops planted with A seed (5)		50m	50m	50m	10m	10m
(e) From ware potato crops planted with CC seed (5)		50m	50m	50m	50m	10m
(f) From all other potatoes including ware crops planted with ineligible or unknown origin seed in neighbours fields, gardens, allotments etc.		50m	50m	50m	50m	50m
Number of inspections	As many as necessary	at least 2	2	2	2	1
Burning of Haulm	See paragraphs 37 and 38					

- (1) Supporting documentation must be provided to show the origin of the stock. Pre-basic 1 may be grown from pre-basic TC stock. Pre-basic 2 may be grown from pre-basic 1 stock. Pre-basic 3 may be grown from pre-basic 2 stock and pre-basic 4 from pre-basic 3 stock. Pre-basic 4 is not eligible for entry for production of further pre-basic stocks but may be planted to produce SE, E, A or CC stocks.
- (2) SE1 class stock may be grown only from pre-basic stocks. SE3 class stock is not eligible for entry for production of further SE but may be planted to produce E, A or CC stocks.
- (3) Elite 1 class stock may be grown only from SE3 or higher class stocks. Elite 3 class stock is not eligible for entry for production of further Elite but may be planted to produce A or CC class stocks.
- (4) Crops entered at the same class may be grown using the minimum isolation distances. However, if a stock is downgraded/failed depending on the reason for failure, plants of any adjacent stock within 10m of the affected stock may also be downgraded/failed.
- (5) For ware crops grown from basic or CC seed within 50m of a seed production crop, proof of acceptability must be presented in the form of a classified seed label and an invoice, delivery note or similar proving that sufficient seed was available to plant the area in question.
- (6) Where any crop is grown with only harvest separation from another crop entered to produce a higher class, that crop must attain the virus standards for the higher class otherwise 10m of the higher grade crop will be downgraded to the class of the crop entered to produce the lower class.
- (7) If you intend to market a stock at a grade lower than that shown on the growing crop certificate please see paragraphs 39 and 53.
- (8) In all cases, the grade on the label will determine the entry grade for the following season.
- (9) In determining the appropriate isolation distance from another seed crop, the class at which the parent crop was assessed in the field is the important factor as regards risks from virus. Therefore, in cases where the 'field' class is available (through the relevant Register for example) and this is different to the class on the label, the higher class may be considered, but for isolation purposes only.

Note: No imported basic seed potatoes may be planted within the protected region unless they have been classified as meeting the requirements of the appropriate Community grade i.e. EC 1, EC 2 or EC 3. EC 3 can only be used for ware production.

An official label from each parent stock planted must be enclosed with the application.

Imported pre-basic seed potatoes are not required to have an EC grade.

Growing season inspections

31. Fera Plant Health and Seeds Inspectors or the WAG will take leaf and/or tuber samples where necessary.

32. Pre-basic (TC & field grown) stocks

- Randomly selected samples may be grown on by Fera or the WAG to assess varietal type. However, it may not be possible for pre-basic material grown under protection to be certifiable/approved to variety.
- The growing crop must be kept free from aphids at all times and all reasonable husbandry practices for the prevention of the occurrence, development or spread of pests and diseases must have been carried out.
- Roguing of diseased plants is **not** permitted prior to the first inspection. This includes roguing for blackleg. Roguing, including for blackleg, is permitted between the first and second inspections.
- The growing crop must have been kept free during the propagation period and found to be free at all official growing crop inspections from potato viruses A, M, S, V, X, Y, leafroll, tobacco vein necrosis virus, blackleg, mild and severe mosaic virus and from deviations of variety and type. N.B. Any virus detected in pre-basic stocks will result in the stock being downgraded to a lower class, depending on the level and type (or severity) of the infection present. Any rogues/blackleg present at the **second** inspection will result in the stock being downgraded to a lower class.

33. SE, E, A and CC

- Crops must be vigorous and kept free from blight and other diseases to ensure they are in an inspectable condition.
- Crops must be rogued during the growing season to keep them free from disease and deviations. However, a growing crop certificate/approval may be refused if roguing appears to have been excessive.

34. All stocks

- Varietal purity** – Growing crop classification/ approval will be based solely on the foliage as seen during the growing season. If classified/approved crops are sold as being of one tuber colour (whether the normal colour of the established variety or of a variant), it is the seller's responsibility to dress out tubers not of that colour.
- Chemical treatment** – Chemicals which alter the normal growth and appearance of plants must not be used. Crops which at growing season inspection appear to have been treated with such chemicals may be considered uninspectable and classification/approval refused.

35. Inspection tolerances

- Crops must meet the following tolerances at field inspections:

Defect Disease	Pre-basic %	Super Elite %	Elite %	A %	CC %
Rogues, undesirables variations, wildings or bolters	NIL	0.05	0.05	0.1	0.5 (of which not more than 0.2 shall be rogues)
Leafroll	NIL	0.01	0.1 Combined tolerance 0.5	0.4 Combined tolerance 0.8 of which not more than 0.4 in total shall be leafroll and severe mosaic	2.0 Combined tolerance 5.0
Severe mosaic disease	NIL	NIL			
Mild mosaic disease	NIL	0.05			
Blackleg	NIL	0.25	0.5	1.0	2.0

Note: For pre-basic crops, the tolerances above apply to **both** first and second inspections. For other grades the tolerances apply to the second inspection.

Aphid control

36. Growing crop certificates and approvals are based on the crop as it was inspected (see paragraph 40). Unless early measures are taken to prevent the spread of virus disease by aphids a subsequent crop from that seed may be severely affected. It is **strongly recommended** that the crop should be treated against aphids at or soon after planting and that an effective control programme is maintained throughout the growing season. You may wish to consult your professional adviser on the choice of a suitable control programme.

Burning off

37. Pre-basic (field grown) crops must be burnt off, without regrowth, not more than 21 days after the second inspection. Any crops not properly burned down will be given a third inspection and graded accordingly. If you do not comply with this burning down requirement, your crop will be downgraded to Super Elite 1.
38. You are advised to burn off other crops as soon as possible after final inspection. Specific restrictions are as follows:
- (a) **Super Elite** – No compulsory requirement.
 - (b) **Elite** – Haulm destruction will only be required when severe virus infection of more than 0.03% is found at the time of the second inspection. You will be informed individually if you are required to burn off your crop.
 - (c) **A** – Haulm destruction will only be required when severe virus infection of more than 0.13% is found at the time of the second inspection. You will be informed individually if you are required to burn off your crop.
 - (d) **CC** – Requirement to burn off when severe virus infection of more than 0.7% is found at the time of inspection. You will be advised individually if this level is exceeded.

Note: If you do not burn off crops when required to do so, or within two weeks of final inspection, tuber indexing may be required before a growing crop certificate/approval can be issued.

Classification, certification and approval

39. (a) Crops entered into the SPCS will receive a growing crop certificate after the growing season inspection which will show whether the crop met the standards at which it was entered as well as the standards of any lower categories, or whether it fails outright. The crop will be eligible for marketing at any of the grades indicated on the certificate. The highest grade shown on the growing crop certificate will be the grade published in the Register (see para 61).
- (b) The names of varieties shown on the growing crop certificate will be those given on the *UK National List of Plant Varieties*. Red-tubered variants of varieties such as *Craigs Royal* and *King Edward* will be classified under the name *Red Craigs Royal* or *Red King Edward* as appropriate.

- (c) Crops entered into the AS will receive a growing crop approval document.
- (d) Growing crop certificates and approvals will be issued only in respect of stocks which are found or believed at the time of inspection to attain the standards of purity and health laid down under the Schemes and which, in the opinion of Fera Plant Health and Seeds Inspectors or the WAG, are otherwise qualified for classification/approval under the conditions of the Schemes. Fera Plant Health and Seeds Inspectors or the WAG, will not knowingly classify/approve stocks which do not attain the health standards laid down, but cannot guarantee that no such stocks will be classified/approved in cases where disease or pests, though present, are not apparent at the time of inspection.
- (e) Fera Plant Health and Seeds Inspectors or the WAG reserve the right to refuse a growing crop certificate/approval if there are any special circumstances, such as the health of related stocks, which in their opinion cast substantial doubts on the health status of the stock entered, even though it may appear at inspection to meet the required standard.
- (f) All consignments of seed tubers from classified stocks must be submitted for labelling (and sealing) and, if required, inspection prior to marketing. AS stocks intended for marketing must also be submitted for labelling and, if required, inspection prior to marketing.
- (g) Fera Plant Health and Seeds Inspectors or the WAG may withdraw a growing crop certificate/approval if they are satisfied that the seed potatoes to which it refers have not been harvested, stored or prepared for marketing in a way which ensured they were kept separate from those of another class or variety, or from other potatoes. This particularly relates to the use of shared equipment for both seed and ware crops which have been produced on separate holdings.
- (h) Approved stock approval will also be withdrawn if the application for National Listing is withdrawn.

Tuber virus indexing service

40. Fera offers an optional tuber sampling and testing service for producers who wish to have stocks of any class virus indexed. The service includes:

- sampling of tubers by Fera Plant Health and Seeds Inspectors before harvest;
- testing of tubers for potato viruses X, Y^N, Y^O and leafroll by Fera's Laboratories;
- detailed report of virus findings;
- 100 or 200 tuber tests.

Note: Test results obtained under this service will **not** be used for official purposes.

41. Charges are set out below:

- £55/hour + VAT for sampling by Fera Plant Health and Seeds Inspectors (or 1/4 hour parts thereof, subject to a minimum charge of £27.50);

- £130 + VAT per 100-tuber sample for laboratory testing;
- £235 + VAT per 200-tuber sample for laboratory testing.

42. Please indicate on your application form, or in writing to your local Fera Plant Health and Seeds Inspector if you wish to use this service.

Tuber inspection

43. Dressed and graded lots of seed potatoes which are marketed must comply with the minimum standards set out in paragraphs 44 - 48. Official labels may be withheld (or withdrawn) if seed potatoes fail to meet the tolerances for pests, damage and defects.

Disease and damage

44. Individual tolerances and group tolerances for pre-basic stocks are as follows:

Specified diseases or pests; damage and defects	Pre-basic TC Individual tolerances	Pre-basic 1-4 Individual tolerances	Pre-basic 1-4 Group tolerances	
(a) Wart disease (<i>Synchytrium endobioticum</i>) (b) Potato tuber eelworm (<i>Ditylenchus destructor</i>) (c) Potato cyst nematode (<i>Globodera species infesting</i>) (d) Ring rot (<i>Clavibacter michiganensis ssp sepedonicum</i>) (e) Brown rot (<i>Ralstonia solanacearum</i>) (f) Potato spindle tuber viroid (g) Colorado beetle (<i>Leptinotarsa decemlineata</i>) Note: Items (d) to (g) are not established in Britain	NIL NIL NIL NIL NIL NIL NIL	NIL NIL NIL NIL NIL NIL NIL		
Group II Blight (<i>Phytophthora infestans</i>) Blackleg (<i>Erwinia carotovora ssp atroseptica</i> or <i>Erwinia chrysanthemi</i> or both) Soft rots including: Watery wound rot (<i>Pythium ultimum</i>) Pink rot (<i>Phytophthora erythroseptica</i>) and pit rot Dry rot (<i>Fusarium species</i>) Gangrene (<i>Phoma species</i>) Frost damaged tubers	NIL NIL NIL NIL NIL NIL NIL	0.2% NIL 0.2% 0.2% 0.2% 0.2% 0.2%	0.2%	4.0%
Group III Skin spot (<i>Polyscytalum pustulans</i>)	NIL	0.2%	3.0%	
Group IV (see note (a) below) Black scurf (<i>Rhizoctonia solani</i>) Common scab (<i>Streptomyces species</i>)	NIL NIL	1.0% 3.0%		
Group V (see note (b) below) Powdery scab (<i>Spongospora subterranea</i>)	NIL	1.0%		
Group VI (see note (c) below) External blemishes or tubers other than diseased tubers whose shape is atypical for the variety Superficial necrosis caused by strains of potato virus Y	3.0%	1.0% NIL		
Group VII Dirt or other extraneous matter	1.0%	1.0%		

(a) Group IV

Common scab-Tubers will not be counted as diseased when less than one-quarter of the surface area is affected and at least 2 eyes at the rose end are wholly unaffected by the disease.

Black scurf-Tubers will not be counted as diseased when less than one-eighth of the surface area is affected and at least two eyes at the rose end are wholly unaffected by the disease.

(b) Group V disease

Tubers will not be counted as diseased when less than one-eighth of the surface area is affected and at least 2 eyes at the rose end are wholly unaffected by the disease, except when it takes its cankerous form.

(c) Group VI blemishes, etc.

External blemishes will include tubers which have been damaged mechanically; seriously affected by wireworms, slugs, vermin or growth cracks; where tubers are dehydrated or exhibit symptoms of potato mop-top virus.

Disease and damage cont.

45. Individual tolerances and group tolerances for Super Elite, Elite, A and CC stocks are as follows:

Specified diseases or pests; damage and defects	Individual tolerances	Group tolerances	Collective Group tolerances
(a) Wart disease (<i>Synchytrium endobioticum</i>) (b) Potato tuber eelworm (<i>Ditylenchus destructor</i>) (c) Potato cyst nematode (<i>Globodera species</i> <i>infesting potatoes</i>) (d) Ring rot (<i>Clavibacter michiganensis</i> ssp <i>sepedonicum</i>) (e) Brown rot (<i>Ralstonia solanacearum</i>) (f) Potato spindle tuber viroid (g) Colorado beetle (<i>Leptinotarsa decemlineata</i>) Note: Items (d) to (g) are not established in Britain	NIL NIL NIL NIL NIL NIL		
Group II (see note (a) opposite) Blight (<i>Phytophthora infestans</i>) Blackleg (<i>Erwinia carotovora</i> ssp <i>atroseptica</i> or <i>Erwinia chrysanthemi</i> or both) Soft rots including: Watery wound rot (<i>Pythium ultimum</i>) Pink rot (<i>Phytophthora erythroseptica</i>) and pit rot Dry rot (<i>Fusarium species</i>) Gangrene (<i>Phoma species</i>) Frost damaged tubers	1.0% 1.0% 1.0% 1.0% 1.0% 1.0%	1.0%	4.0%
Group III (see note (b) opposite) Skin spot (<i>Polyscytalum pustulans</i>) (SE and E grades) (A and CC grades) Powdery scab (<i>Spongospora subterranea</i>)	0.5% 2.0% 3.0%	4.0%	
Group IV (see note (c) opposite) Black scurf (<i>Rhizoctonia solani</i>) Common scab (<i>Streptomyces species</i>)	3.0% 4.0%		
Group V (see note (d) opposite) External blemishes or tubers other than diseased tubers whose shape is atypical for the variety Superficial necrosis caused by strains of potato virus Y	2.0% 0.1%	2.0%	
Group VII Dirt or other extraneous matter	1.0%	1.0%	

a) Group II diseases

Individual tolerances and a group tolerance of 0.5% applies to stocks given an EC grade.

(b) Group III diseases

Tubers will not be counted as diseased when less than one-eighth of the surface area is affected and at least 2 eyes at the rose end are wholly unaffected. Where powdery scab takes its cankerous form, all infected tubers will be counted.

(c) Group IV diseases

Black scurf- Tubers will not be counted as diseased when less than one eighth of the surface area (one quarter of the surface area for A + CC grades) is affected and at least 2 eyes at the rose end are wholly unaffected by the disease.

Common scab- Tubers will not be counted as diseased when less than one-quarter of the surface area is affected and at least two eyes at the rose end are wholly unaffected by the disease.

(d) Group V blemishes, etc.

External blemishes will include tubers which have been damaged mechanically; seriously affected by wireworms, slugs, vermin or growth cracks; where tubers are dehydrated or exhibit symptoms of potato mop-top virus.

Size and variety

46. The minimum size of pre-basic (1-4), basic and certified seed potatoes is 25mm. Sizes over 35mm must be stated in multiples of 5mm.

47. Permitted tolerances from the details specified on the official label are:

- size – 3% by weight;
- variety – 0.01% (pre-basic), 0.1% (basic) or 0.2% (CC) by number.

48. The maximum variation between tubers in a lot is 25mm.

Official labelling and sealing

49. Bags and containers of seed potatoes must be either new and unused or cleaned and disinfected to the satisfaction of the local Inspector and must **not** be marketed unless they carry official labels and, in certain

circumstances, seals (see paragraph 51).

50. The official label is also an EC plant passport for trade with and within EC countries (phytosanitary certificates are required for trade with non-EC countries). All labels will be serially numbered and contain the following information:

- Member State (UK);
- responsible official body (The Food and Environment Research Agency/Welsh Assembly Government);
- country of production (England and Wales);
- species (except basic and certified seed potatoes);
- class;
- category (pre-basic, basic, certified or AS);

- EC grade (if appropriate);
- variety;
- grower's number;
- EC plant passport;
- If the seed potatoes are being marketed to a country with a rhizomania protected zone ZPd1 or ZP: DK, F(Brittany), FI, IRL, P(Azores), SE, UK (Northern Ireland) (denoting the territorial validity of the passport/label and the name of the protected zone for which the product is qualified) see paragraphs 21 and 22 for qualifying criteria; or ZPa6 if marketed to a country with a Protected Zone for PCN (Finland, Latvia, Slovenia and Slovakia)
- declared net weight;
- size;
- date of closing;
- serial number.
- AS labels will also be marked: 'variety not yet officially listed' and 'for test and trials only';

Note: If a variety has been genetically modified, this **must** be stated on the label.

51. Labels for the pre-basic class are white with a diagonal violet line; basic classes are white, CC class are blue and Approved Stocks which are marketed are orange. If stocks are not marketed they may be moved with a yellow label. Two types are available:
- a tie-on label requiring a separate seal; and
 - a tear-resistant label which, when stitched into the mouth of the bag, serves as the seal and removes the need for an internal official document.
52. Please apply for labels to your local Fera Plant Health and Seeds Inspector on form SPCS 3 (which will be sent to you with your growing crop certificate/approval), or apply on-line, allowing 10 days for delivery. Where crops are being produced on behalf of rights holders, growers may submit applications for official labels and seals providing they have written permission from the rights holders to do so. Please specify which type of label you require and indicate for SPCS basic grades whether they should include EC grades (this is obligatory if marketed within the protected region). Please note that tuber inspection standards are higher for EC grades than for national classes.
53. Certificate holders may market the seed potatoes at any of the classes shown on the growing stock certificate/approval. Labels may therefore be drawn at any of these classes (but

not at a lower generation within a class). Please specify your requirements when completing form SPCS 3.

Note: The class at which the stocks would be eligible for entry into the schemes the following season would be the next most appropriate class to that indicated on the official label. If marketing does not take place, then any of the classes appearing on the growing crop certificate, other than the highest, will be an eligible entry class for the following season. Once labels are issued, the class entered on the label cannot be changed.

54. You must maintain a record of each block of labels used and make this available for inspection by an authorised officer of Fera or the WAG. Where the month of issue is printed on the labels they will be valid during that month only. **Fera or the WAG will remain the owner of official labels after they have been issued and all unused labels must be returned to the appropriate Fera or WAG Office.** Where a seal is broken the re-sealing must be done by or under the supervision of an authorised officer.
55. Tubers from stocks entered into the SPCS/AS may be moved in an 'as lifted' state by the owner of the seed to other premises for storage/dressing, provided they are plant passported. The owner of the potatoes must apply for registration and authorisation to issue plant passports. In some circumstances (e.g. where the distance is less than 50km and no plant health risk is involved) these movements may be exempt from the passporting requirement. Please contact your local local Fera Plant Health and Seeds Inspector.

Use of fungicides and sprout suppressants on potato tubers

56. Your attention is drawn to the risk of using certain fungicides and other chemicals with sprout suppressing activity on seed potato tubers. **It is an offence to market any seed potatoes which have been treated with a product which is produced primarily as an application for inhibiting germination.** Smoke fumigation should be avoided. For control of all tuber diseases only products approved for the purpose should be used on seed potato stocks. The prescribed dosage rates should never be exceeded and all relevant instructions and precautions should be observed. If in doubt whether to use a tuber fungicide, you are recommended to consult your professional adviser.

Labelling of chemical treatments

57. If seed potatoes for marketing have been treated with any chemical product, the proprietary name or the type and function of that product **must** be clearly stated on a label attached to the package or container and on the document (if any) contained within it. Suitable labels are available from product suppliers. Details of chemical treatments will **not** be included on the official label.

Storage of tubers

58. All stocks must be stored separately, clearly labelled and handled so as to avoid admixture with other seed stocks and stored separately from ware stocks.

Records

59. You must keep records for at least 2 years of purchases and sales of seed potatoes. They should show:
- date of purchase/sale;
 - name and address of supplier/consignee;
 - variety(ies);
 - label/clone reference number(s) of seed purchased. (**N.B.** You must retain all official labels for at least 1 year, or at least 2 years if they form part of your record keeping system);
 - certificate number(s)/approval number(s) of stocks sold;
 - the amount of each variety (if a variety is sold under more than one certificate/approval number, the amounts under each number should be shown separately);
 - growers of pre-basic material should ensure that sufficient evidence of the source of the original material is retained and that stocks kept in micropropagation are fully labelled and referenced back to the original starting material.

Please keep these records available for inspection by authorised officers of Fera or the WAG as they may be requested at any time.

Separate particulars

60. You must give purchasers of classified stocks a sale note, delivery note, invoice or similar document providing the following information:
- seller's name and address;
 - net weight;
 - species (except basic and certified seed potatoes);

- variety;
- pre-basic, basic or certified seed potatoes;
- class;
- community grade (as appropriate);
- size (except pre-basic seed potatoes);
- producer's identification number;
- particulars of any chemical treatment.

Note: If a variety has been genetically modified, this **must** be stated on the sale note.

This statement must be given within 14 days of sale or, if the seed potatoes are not delivered at the time of sale, within 14 days of delivery.

SPCS Register of growers

61. At the close of the inspection season, a register will be published giving names and addresses of those whose stocks have been granted growing crop certificates. Every effort will be made to ensure that the register is complete but Fera and the WAG do not guarantee that all such growers and stocks have been included.

Sole traders should indicate on the crop application form if they do not want their name and address to appear in the Register. In such cases the Register entry, for the individual's crop, will be limited to variety, hectareage and grade. The definition of a sole trader is a person who trades by himself/herself without the use of a company structure or partners and bears alone full responsibility for the actions of the business.

Complaints procedure

62. If you have any concerns or specific complaints about the way Fera operates or the services we provide, please refer to Fera's Customer Charter for details of our complaints procedure. The Customer Charter is available on the Fera website at: www.defra.gov.uk/fera/news

If you have any complaint about a stock of seed potatoes you have received, please contact your local Fera Plant Health and Seeds Inspector for advice.

Plant Health information

63. General information about plant health, including news alerts, forms and publications can be found on Fera's website at www.defra.gov.uk/fera/plants/plantHealth

Growing Season Inspections

CLASS	UNIT OF FEE	FEE PAYABLE
PRE-BASIC and AS	Per hour (or part thereof)	£81.00
SUPER ELITE	Per 0.5 ha (or part thereof) Minimum fee	£40.50 £81.00
ELITE	Per 0.5 ha (or part thereof) Minimum fee	£40.50 £81.00
A	Per 0.5 ha (or part thereof) Minimum fee	£38.50 £77.00
CC	Per 0.5 ha (or part thereof) Minimum fee	£35.00 £70.00

Ready Reckoner of Fees

Growing Season Inspections

AREA (Hectares)	SUPER ELITE (£)	ELITE (£)	A (£)	CC (£)
0.5	40.50	40.50	38.50	35.00
Min Fee	81.00	81.00	77.00	70.00
1.00	81.00	81.00	77.00	70.00
1.50	121.50	121.50	115.50	105.00
2.00	162.00	162.00	154.00	140.00
2.50	202.50	202.50	192.50	175.00
3.00	243.00	243.00	231.00	210.00
3.50	283.50	283.50	269.50	245.00
4.00	324.00	324.00	308.00	280.00
4.50	364.50	364.50	346.50	315.00
5.00	405.00	405.00	385.00	350.00
5.50	445.50	445.50	423.50	385.00
6.00	486.00	486.00	462.00	420.00
6.50	526.50	526.50	500.50	455.00
7.00	567.00	567.00	539.00	490.00
7.50	607.50	607.50	577.50	525.00
8.00	648.00	648.00	616.00	560.00
8.50	688.50	688.50	654.50	595.00
9.00	729.00	729.00	693.00	630.00
9.50	769.50	769.50	731.50	665.00
10.00	810.00	810.00	770.00	700.00
10.50	850.50	850.50	808.50	735.00
11.00	891.00	891.00	847.00	770.00
11.50	931.50	931.50	885.50	805.00
12.00	972.00	972.00	924.00	840.00
12.50	1012.50	1012.50	962.50	875.00
13.00	1053.00	1053.00	1001.00	910.00
13.50	1093.50	1093.50	1039.50	945.00
14.00	1134.00	1134.00	1078.00	980.00
14.50	1174.50	1174.50	1116.50	1015.00
15.00	1215.00	1215.00	1155.00	1050.00
15.50	1255.50	1255.50	1193.50	1085.00
16.00	1296.00	1296.00	1232.00	1120.00
16.50	1336.50	1336.50	1270.50	1155.00
17.00	1377.00	1377.00	1309.00	1190.00
17.50	1417.50	1417.50	1347.50	1225.00
18.00	1458.00	1458.00	1386.00	1260.00
18.50	1498.50	1498.50	1424.50	1295.00
19.00	1539.00	1539.00	1463.00	1330.00
19.50	1579.50	1579.50	1501.50	1365.00
20.00	1620.00	1620.00	1540.00	1400.00

Schedule of Fees Payable in 2009

Tuber Inspections

CLASS	UNIT OF FEE	FEE PAYABLE
ALL GRADES	Per 0.5 ha (or part thereof)	£12.00
	Minimum fee	£24.00

Ready Reckoner of Fees

Tuber Inspections

AREA (Hectares)	ALL GRADES (£)	AREA (Hectares)	ALL GRADES (£)
0.5	12.00	10.50	252.00
1.00	24.00	11.00	264.00
1.50	36.00	11.50	276.00
2.00	48.00	12.00	288.00
2.50	60.00	12.50	300.00
3.00	72.00	13.00	312.00
3.50	84.00	13.50	324.00
4.00	96.00	14.00	336.00
4.50	108.00	14.50	348.00
5.00	120.00	15.00	360.00
5.50	132.00	15.50	372.00
6.00	144.00	16.00	384.00
6.50	156.00	16.50	396.00
7.00	168.00	17.00	408.00
7.50	180.00	17.50	420.00
8.00	192.00	18.00	432.00
8.50	204.00	18.50	444.00
9.00	216.00	19.00	456.00
9.50	228.00	19.50	468.00
10.00	240.00	20.00	480.00

NB: Minimum fee is £24