EXPLANATORY MEMORANDUM TO

THE PLANT HEALTH (ENGLAND) (AMENDMENT) ORDER 2010

2010 No. 1510

THE SEED POTATOES (ENGLAND) (AMENDMENT) REGULATIONS 2010

2010 No. 1511

1. This explanatory memorandum has been prepared by The Food and Environment Research Agency (Fera) and is laid before Parliament by Command of Her Majesty.

2. Purpose of the instrument

2.1 The Plant Health (England) (Amendment) (Order) 2010, which amends the Plant Health (England) (Order) 2005 (S.I. 2005/2530), and the Seed Potatoes (England) (Amendment) Regulations 2010, which amend the Seed Potatoes (England) Regulations 2006 (S.I. 2006/1161), implement Council Directive 2007/33/EC (OJ No. L156, 16.6.2007, p.12) on the control of potato cyst nematodes.

2.2 The Plant Health (England) (Amendment) (Order) 2010 also makes minor amendments to the principal Order in relation to inspectors' powers of entry.

2.3 The Seed Potatoes (England) (Amendment) Regulations 2010 also correct an error in Schedule 3 of the 2006 Regulations relating to the tolerances for common scab.

3. Matters of special interest to the Joint Committee on Statutory Instruments

3.1 None.

4. Legislative Context

4.1 Council Directive 2000/29/EC on protective measures against the introduction into the EU of organisms harmful to plants or plant products and against their spread within the EU ("the Plant Health Directive") establishes the EU plant health regime. It contains measures to be taken in order to prevent the introduction into, and spread within, the EU of serious pests and diseases of plants and plant produce. The Plant Health Directive is implemented in England, for non-forestry matters, by the Plant Health (England) (Order) 2005. Similar but separate legislation operates in Scotland, Wales and Northern Ireland.

4.2 Council Directive 2007/33/EC on the control of potato cyst nematodes sets out specific measures to determine the distribution of potato cyst nematodes, to prevent their spread and control them. It repeals Council Directive 69/465/EEC to take account of changes in the understanding of the biology of the pest, its distribution across the EU and practices within the potato industry. The Directive is implemented in England through the Plant Health (England) Order 2005 and the Seed Potatoes (England) Regulations 2006.

4.3 The Seed Potatoes Marketing Directive (2002/56/EC) which set out obligatory requirements for those who wish to market seed potatoes, includes requirements relating to freedom from potato cyst nematodes. It is implemented in England through the Seed Potatoes (England) Regulations 2006.

5. Territorial Extent and Application

5.1 These instruments apply to England only.

6. European Convention on Human Rights

As the Plant Health (England)(Amendment) Order 2010 is not subject to any parliamentary procedure and the Seed Potato (England)(Amendment) Regulations 2010 are subject to negative resolution procedure and neither amend primary legislation, no statement is required.

7. Policy background

- ***What is being done and why***

7.1 Potato cyst nematodes (PCN) are serious pests of potato crops world-wide, causing significant yield loss. They feed on potato roots and can spread with potato tubers, as well as on plants, soil and machinery. They were among the first plant pests to be subject to European plant health legislation, in 1969. PCN are considered as 'quarantine' (i.e. of economic importance but not established in the EU) pests and are included in the Plant Health Directive, meaning that their introduction and spread is banned. The Seed Potatoes Marketing Directive – which includes obligatory requirements for those who wish to market seed potatoes - also requires that both the production ground of seed potatoes and individual lots of seed potatoes are free of PCN. Further information about PCN is available on Fera's website at http://www.fera.defra.gov.uk/plants/plantHealth/pestsDiseases/potatoCystNematodes.cfm

7.2 Potatoes are an important crop for England. Maintaining the supply of seed potatoes free of organisms of plant health concern, such as PCN, is vital to the ware potato industry, which relies on healthy planting stock. It is also important for export sales, to meet the requirements of importing countries. Therefore, PCN control is important to maintain the UK's plant health status for certain crops and also to comply with EU requirements. However, much of England's ware potato production area is now infested with PCN due to the restricted scope of the 1969 Directive and the limited effectiveness of some control methods, so it also important to find solutions for those who are affected by outbreaks of this pest. The 1969 Directive provides only limited opportunities to make use of land found infested with PCN.

7.3 An updated Directive on PCN control (2007/33/EC) was adopted in 2007 to take account of changes in the understanding of the biology of the pest, its distribution across the EU and practices within the potato industry. It includes strengthened soil testing requirements, to improve protection for seed potato production, and the option of implementing a control programme on infested land, allowing ware potatoes to be grown, which is helpful for growers in this situation. The possibility of growing certain plant species on infested land has also been introduced, provided they are disinfested after harvesting. The new Directive has to be implemented by Member States from 1 July 2010, in preparation for planting in 2011.

7.4 There were two consultation exercises to help determine the UK negotiating position on the Directive and the final version largely reflected the key objectives agreed. A further consultation was held in 2009 on how the agreed Directive should be implemented. The proposals circulated for comment aimed to balance legal obligations and the objective of reducing PCN spread, with the desire to avoid unnecessary burdens on the industry and Government. The proposed approach was largely supported by respondents, although some sectors pressed for a stricter approach in relation to farm saved seed production. It is proposed to make use of a derogation in the Directive to exempt such production from the scope of the official soil testing requirements, to reflect the fact that PCN is already distributed in many areas where farm saved seed is planted and that substantial resources would be needed to introduce a soil testing requirement for the many hundreds of growers involved in this practice. To respond to industry comments, best practice

guidance is being published to help protect remaining uninfested land and Fera is collaborating with the NFU on an initiative to incorporate soil testing within the Assured Produce Scheme.

7.5 The controls on PCN are currently implemented in England through:

- Schedules 1 and 4 of the Plant Health (England) Order 2005, which implement the requirements of the Plant Health Directive in relation to the introduction and movement of PCN, seed potatoes and plants with roots intended for planting.

- Schedule 15 of the Plant Health (England) Order 2005 implements the requirements of the PCN Control Directive relating to land contaminated with PCN.

- Schedule 1 of the Seed Potatoes (England) Regulations 2006 implements the requirements of the Seed Potatoes Marketing Directive that both the production ground of seed potatoes and individual lots of seed potatoes are free of PCN.

7.6 To give effect to the conclusions arising from the 2009 consultation exercise and to implement the measures in the new Control Directive, the Plant Health (England) (Amendment) Order 2010 will replace Schedule 15 of the Plant Health (England) Order 2005. In particular, there will be requirements on the demarcation of fields infested with PCN, planting restrictions for such fields and a requirement to undertake a PCN control programme if ware potatoes are to be grown. The Seed Potatoes (England) (Amendment) Regulations 2010 amend Schedule 1 of the Seed Potatoes (England) Regulations 2006 to reflect the revised requirements, to ensure that seed potatoes intended for marketing are produced only on land that has been tested and found free of PCN. Some consequential changes for the Plant Health Directive arising from the Control Directive are currently in preparation by the European Commission. These will be implemented separately once finalised, possibly in a consolidation exercise for the Plant Health (England) Order, planned for the second half of 2010.

7.7 Fera has also taken the opportunity to amend Articles 31 and 38 of the Plant Health (England) Order 2005 to clarify the powers of entry available to inspectors to determine if a plant pest is present on any premises, and a new provision regarding entry into unoccupied premises. These changes are necessary to provide legal clarity when inspectors carry out official surveys (which they do on a regular basis, to check for the presence of quarantine pests) and also to bring plant health legislation into line with other areas, such as fish health, when surveillance is required on unoccupied private properties. This may be necessary when pests have spread into the local environment and rapid surveillance and action is necessary to ensure they do not spread more widely. At present, plant health legislation is out of step with other regimes as regards the right to enter unoccupied premises and an amendment is necessary to facilitate such entry, in accordance with established legal procedures (obtaining a signed warrant from a justice of the peace).

7.8 The Seed Potatoes (England) (Amendment) Regulations 2010 also correct an error in Parts II and III of Schedule 3 of the 2006 Regulations relating to the group and collective group tolerances for common scab.

- ***Consolidation***

7.9 A consolidation of the Plant Health (England) Order 2005 is to be undertaken during the second half of 2010. There are no plans at this stage to consolidate the Seed Potatoes (England) Regulations 2006.

8. Consultation outcome

8.1 There were two consultation exercises to help determine the UK negotiating position on the PCN Control Directive and the final version largely reflected the key objectives agreed. A further

consultation was held in 2009 on how the agreed Directive should be implemented. Stakeholders have been involved subsequently on, for example, the content of Fera's official control programme for infested ware potato fields.

9. Guidance

9.1 Stakeholders are already aware of the outcome of the consultation exercise. The legislative changes will be confirmed with stakeholders and relevant publicity and guidance will be included on the Fera website.

10. Impact

10.1 No impact on charities or voluntary bodies is foreseen.

10.2 No impact on the public sector is foreseen.

10.3 An Impact Assessment on implementation of Council Directive 2007/33/EC has been prepared and is attached at Annex I. .

11. Regulating small business

11.1 Businesses affected by the PCN Control Directive largely fall into the category of small businesses. The Directive includes specific derogations for growers producing material for their own use, which will include smaller growers, and also includes new options in areas already affected by PCN. Smaller growers who are restricted to production in particular areas should benefit from these additional options. In relation to potatoes grown on PCN infested land, the position of smaller growers is recognised, as it is only those potatoes sent for industrial processing or grading which must go to an officially approved facility. Potatoes disposed of locally, at the farm gate or through local retail sales, for example, are not subject to official control. This reflects the lower degree of risk associated with small quantities of potatoes being sold for consumption.

12. Monitoring & review

12.1 EU and national plant health legislation is updated frequently, to take account of new or revised risk assessments, pest interceptions, changes in distribution of pests and other developments.

13. Contact

Richard McIntosh (Policy Programme, Fera, Sand Hutton, York, Y041 1LZ). Tel 01904 465632, e-mail richard.mcintosh@fera.gsi.gov.uk) can answer any queries regarding the instrument.

Summary: Intervention & Options

Department /Agency:	Title:	
Defra	Impact Assessment of Directive 2007/33/EC: Control of potato cyst nematodes	
Stage: Consultation	**Version:** 2	**Date:** 1 January 2009
Related Publications: Directive 2007/33/EC		

Available to view or download at:

http://www.defra.gov.uk/corporate/consult/pcn/index.htm

Contact for enquiries: Richard McIntosh **Telephone:** 01904 455177

What is the problem under consideration? Why is government intervention necessary?

Potato cyst nematodes (PCN) are listed as 'quarantine' pests in the EC Plant Health Directive, meaning that they are not established in the EU and subject to official control. By definition, quarantine pests are those pests where it has been recognised that there is value in maintaining freedom from presence of the pest, because they are economically and/or environmentally damaging, and where official intervention is necessary to prevent introduction and establishment. The market alone would not take into account the external (e.g. environmental) benefits that official controls ensure.

What are the policy objectives and the intended effects?

A new Directive on PCN control has been adopted to replace one which has been in place since 1969. This IA considers implementation issues. The objective is to implement the Directive in such a way to minimise the risk of further PCN spread, particularly in seed potato land, while avoiding unnecessary and disproportionate burdens on the industry and Defra.

What policy options have been considered? Please justify any preferred option.

Various options were considered during the review of the EC Directive, including revocation, self regulation, targeted measures or updating. A new Directive was the preferred option, to enhance protection against the pest and protect areas of the EU which remain free of it, while providing increased flexibility for growers in areas where it is already present. The other options would have accelerated the rate of spread, with resulting yield losses and consequences for trade. The Directive includes key elements of importance to the UK, agreed following two consultation exercises .

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

There is an annual review of the seed potato classification scheme. The Directive will be reviewed on an annual basis, following survey returns submitted by member states.

Ministerial Sign-off For consultation stage Impact Assessments:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister:

.....Date:

Summary: Analysis & Evidence

Policy Option:	Description:

COSTS

ANNUAL COSTS

One-off (Transition) **Yrs**

£ 0

Average Annual Cost (excluding one-off)

£ 50k

Description and scale of **key monetised costs** by 'main affected groups' The Directive is not expected to impose significant new costs on business. There will be increased annual costs (£50k) to Government for enhanced sampling and testing arrangements.

Total Cost (PV) **£ 735k**

Other **key non-monetised costs** by 'main affected groups'

BENEFITS

ANNUAL BENEFITS

One-off **Yrs**

£ 0

Average Annual Benefit (excluding one-off)

£ 57k

Description and scale of **key monetised benefits** by 'main affected groups' The key benefit is avoidance of yield loss in potatoes which occurs through PCN infestation. The rate and extent to which the new requirements successfully prevent yield loss could vary substantially (Annex A), but the most likely scenario suggests an average annual saving in yield of £57k over a 20 year period.

Total Benefit (PV) **£ 740k**

Other **key non-monetised benefits** by 'main affected groups' Greater availability of 'clean' land, so lower land rents for seed and ware; reduced nematicide use (added benefit given reduced product availability); increased varietal availability; export opportunities; scope to grow non-host plants on infested land; no infraction costs; contributes to protection of EU as a whole.

Key Assumptions/Sensitivities/Risks The NPV range reflects different assumptions about pest distribution and the impact of the Directive in reducing the rate of spread.

Price Base Year 2006	Time Period Years 20	**Net Benefit Range** (NPV) **£ +£7.1m to -£1.4m**	**NET BENEFIT** (NPV Best estimate) **£ £5k**

What is the geographic coverage of the policy/option?				England and Wales	
On what date will the policy be implemented?				1 July 2010	
Which organisation(s) will enforce the policy?				Defra	
What is the total annual cost of enforcement for these organisations?				£ 50k	
Does enforcement comply with Hampton principles?				Yes	
Will implementation go beyond minimum EU requirements?				No	
What is the value of the proposed offsetting measure per year?				£ n/a	
What is the value of changes in greenhouse gas emissions?				£ 0	
Will the proposal have a significant impact on competition?				No	
Annual cost (£-£) per organisation (excluding one-off)	Micro **0**	Small **0**	Medium **0**	Large **0**	
Are any of these organisations exempt?	No	No	N/A	N/A	

Impact on Admin Burdens Baseline (2005 Prices) (Increase - Decrease)

Increase of £ Decrease of £ **Net Impact** **£** 0

Key: **Annual costs and benefits: Constant Prices** **(Net) Present Value**

Evidence Base (for summary sheets)

[Use this space (with a recommended maximum of 30 pages) to set out the evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Ensure that the information is organised in such a way as to explain clearly the summary information on the preceding pages of this form.]

Introduction

Potato cyst nematodes (PCN) are pests of potatoes and are listed in the EC Plant Health Directive (2000/29/EC). Since 1969 a specific Control Directive (69/465/EEC) has been in place to help detect the presence of PCN and control outbreaks. PCN has continued to spread despite the Directive and a replacement Directive was adopted in June 2007, to be implemented by July 2010. This IA considers implementation issues. The alternative of non-implementation is not considered, as this would result in substantial infraction costs, would involve significant reputational and trade consequences and would have a negative impact on the phytosanitary status of the UK, as well as the EU as a whole.

Background

Although PCN is a 'quarantine' pest, it has been spreading gradually across the EU, and the Commission introduced a proposal to address the failure of a1969 Directive in preventing its spread. The introduction of a new Directive was pursued following consideration of various options, which also included revocation, self regulation and targeted measures. For the EU as a whole, enhanced protection was considered to be the most appropriate option, to retain phytosanitary status (and therefore avoid the yield loss and control costs which arise from PCN infestation) and to facilitate trade (intra-EU and exports to third countries).

Notwithstanding the position for the EU as a whole, an initial cost benefit analysis (CBA) indicated that the proposal, if unamended, would result in a substantial negative benefit: cost ratio for the UK. PCN is already established in parts of the UK, so the potential to retain land free of the pest (and therefore generate the benefits referred to above) would be outweighed by, particularly, the substantial testing and control measures which were proposed. However, with a series of amendments which were introduced principally through UK efforts, and which reflected the negotiating objectives following two consultation exercises (in 2002 and 2005), an updated CBA concluded that the benefit: cost ratio associated with the Directive which was finally adopted was much improved.

There are significant uncertainties regarding the CBAs, reflecting varied estimates about the current distribution of PCN and the extent to which the Directive will successfully slow down the rate of spread. Nevertheless, constant assumptions were used and sensitivity analyses were carried out, which confirmed the improved benefit: cost situation, so the conclusions provided helpful indicative evidence.

The CBAs were based on the position for the UK as a whole and were prepared on the basis of data and estimates available at the time of the Directive's negotiation. Some factors have changed since then. In particular, a tendering exercise has recently reduced significantly the costs of official soil testing. A revised CBA has been prepared to take account of these changes and also to focus on the position in England and Wales (rather than the UK as a whole). The updated conclusions are included in the Summary section of this IA, and are also referred to below, to provide the most up to date information to consultees, who are welcome to submit additional contributions or comments as part of the consultation process. A summary of all the CBA findings is provided in Annex A for information.

Financial consequences

The main effect on direct costs will be in relation to seed potato production, where the revised soil sampling arrangements will require a greater intensity of sampling and testing. At present, this costs around £35k p.a., but is estimated to rise to £75k p.a. as a result of the Directive.

These costs currently fall to Defra, but a review of all plant health charges is planned, so the position could change.

The other direct cost associated with the Directive is a new requirement to carry out an annual survey of ware potato land. 0.5% of the ware growing area must be included in this survey, which in England and Wales is around 500 ha. The testing costs of this survey are estimated to be around £10k, with associated sampling time by the Plant Health and Seeds Inspectorate, which will be funded by Defra.

The other category of businesses affected by the Directive are growers of plants and bulbs for transplanting, although the impact on them will be very limited. An official investigation will not be necessary if the harvested crops are to be marketed practically free of soil (which is generally the case), or used within the same place of production. Even if an official investigation is necessary because the above requirements will not be met, the grower will have the opportunity to provide evidence of PCN freedom through testing results or the cropping history of the field. There will also be the opportunity to grow crops on known infested land, again if they are to be marketed practically free of soil, which is a new option.

In terms of benefits, the main impact will be a lower level of yield loss in the national potato crop, compared to the situation which would exist if the current Directive was retained, i.e. a slower rate of PCN spread will mean fewer crops being infested with PCN which would result in yield loss. The actual yield saving will depend on how successful the Directive is in achieving its objective of slowing down the rate of PCN spread, but under the 'most likely' scenario assessed in the CBA there would be an annual average saving of £57k over a 20 year period. This is not a constant benefit, as there will be a period before the impact of the Directive is felt in terms of taking infested land out of the system and yield savings will reduce as more land becomes infested.

Administrative burdens

Any burdens imposed directly by the Directive are likely to be negligible, if the approach recommended in the consultation exercise is supported, as growers are likely to be complying already with the requirements for other reasons (e.g. seed potato growers will be participating in the Seed Potato Classification Scheme; growers of plants and bulbs will be involved with the plant passporting system etc). The existing regime largely affects the same categories of businesses and, in terms of administrative burdens, there are unlikely to be significant changes as a result of the new Directive.

Implementation issues

As a Directive, there is some flexibility for member states to decide their own approach to implementation on certain issues. A consultation exercise is being carried out to determine Defra's approach in the following areas, where there is scope for interpretation:

- Field definition - although the soil sampling and testing protocols are set out in the Directive, there is also provision for member states to define what they mean by a 'field' for sampling and control purposes, which could affect the intensity of sampling required and the implications from positive results.
- Documentary evidence – to take advantage of the reduced rate of sampling permitted by the Directive, "documentary evidence" must be made available by growers. The format of such evidence is not specified, so there is the possibility of creating a standardised form for the sake of consistency, or using existing official and unofficial information, such as planting and pesticides records.
- Banking of test results - provision is made for testing results under the current regime to remain eligible under the new regime. There is scope to decide whether such 'banking' should be permissible and, if so, for how long.
- Farm saved seed production – unlike the 1969 Directive, the new Directive is not restricted to seed potatoes intended for marketing, so it also covers farm saved seed. However, derogations are available for farm saved seed which is only moved within an officially

- Period of restrictions - in cases where a field is found to be infested, the Directive sets out minimum periods before it can be retested to confirm freedom, but such periods can be extended if the member state considers appropriate.
- Official control programme – the new Directive extends the opportunities to grow ware potatoes on land known to be infested with PCN, provided an officially approved control programme is in place. A significant proportion of ware potato land in England and Wales is known to be infested with PCN and much advice is already available to ware growers to help them adapt to this situation. There is the possibility of member states authorising the industry to carry out their own control programmes, or undertaking their own official programmes.
- Waste disposal – ware potatoes grown on known infested land and sent for industrial processing or grading must use a facility with officially approved waste disposal facilities. Many such plants are already recognised as having effective waste disposal procedures in relation to other activities, e.g. processing of Egyptian potatoes, but there is the possibility of imposing additional requirements.

Given Defra's objective of minimising burdens arising from the new Directive, the consultation paper includes recommended approaches on each of these issues. These are summarised in the table below. The main aim of the consultation will be to determine whether consultees agree with these recommendations, or would prefer an alternative approach. The possible implications of pursuing alternative approaches are also summarised in the table.

Issue	**Recommendation**	**Implications**	**Alternatives**
Field definition	To retain existing arrangements, with 'whole' fields being sampled and subject to control in the event of positive findings.	Possibility to make use of reduced sampling rates for larger fields, as specified in the Directive. This would avoid the unnecessarily intensive regime which would apply if fields were to be divided. Defra pays for sampling/testing costs at present, but this could change in future.	Fields could be subdivided, which would increase the likelihood of positive results (through more intensive sampling), but in theory would reduce the area of land taken out of production in the event of positive results. In practice, the more intensive sampling regime could still result in several subdivided units being taken out of production.
Documentary evidence	To use existing records (such as certification scheme applications and grower planting records) to comply with this requirement.	No increase in burdens, as these records already exist.	A new official form, which would result in administrative burdens for growers and Defra, but would present evidence in a transparent and consistent manner.
Banking of soil test results	To retain existing arrangements, which allow banking for up to 4 years.	No change. There are no direct costs involved, but the banking system is convenient to growers and helps with planning.	A shorter period, which would be less convenient to growers, or a longer period. In principle, a longer period may be more convenient, but there is a question about whether growers would plan so far in advance, and some

			additional official monitoring may also be necessary.
Farm saved seed production	To apply the available derogation to all farm saved seed production.	Effectively maintains the status quo, as the current Directive applies only to seed potatoes "for marketing".	To require an official soil test for some or all farm saved seed production. This would be carried out through the plant passporting system, which is a chargeable system, costing £81 per hour.
Period of restrictions	To apply the minimum period specified in the Directive (6 years) for seed potato production, allowing the reduced period (of 3 years, when control measures have been applied) in other situations.	This would replace the current regime (which allows retesting after a minimum period of between 6 months and 6 years, depending on the category of potatoes grown). There is unlikely to be a significant impact from these changes, as the shortest period currently applies for ware potato production, but the new Directive makes provision for ware potatoes to be grown routinely on infested land. Defra pays for sampling/testing costs at present, but this could change in future.	To increase the minimum periods specified, to provide greater assurance that PCN is not present. This would cause greater pressure on land availability, but would reduce Defra's resource input, as fewer tests would be carried out.
Official control programmes	To authorise growers to carry out their own control programmes.	Many growers have already had to adapt to the presence of PCN and have their own strategies for dealing with it, based on advice from consultants and organisations such as the Potato Council. The authorisation process is therefore unlikely to be burdensome.	Requiring growers to follow a prescribed official programme. There would be resource implications for Defra is preparing such a programme and reduced flexibility for growers in following it. Potential benefits would include a consistent approach to PCN suppression across the country.
Waste disposal	To allow growers to make their own choices, in consultation with the Plant Health and Seeds Inspectorate, when sending infested potatoes for industrial grading or processing.	A number of processing plants already have waste disposal facilities approved for other purposes (e.g. processing Egyptian potatoes). Other plants could be considered on a case by case basis.	Generating and maintaining a central list of approved premises and prescribing specific destinations for infested potatoes. This would provide a greater degree of control, but there would be resource implications for Defra and reduced flexibility for growers.

Impact Tests (see Annex B for outcome of other tests)

The following initial assessment has been made.

Competition

Does the Directive:

- Directly limit the number or range of suppliers?
- Indirectly limit the number or range of suppliers?

The Directive imposes certain obligations and responsibilities on suppliers, but does not directly or indirectly restrict the number or range of suppliers able to operate in the market place. Any business or individual can grow the crops included within the scope of the Directive, provided they comply with the specified requirements. Some aspects of the Directive provide greater opportunities for growers to participate in the market, for instance the new provisions permitting plants, bulbs and ware potatoes to be grown on land known to be infested with PCN.

- Limit the ability of suppliers to compete?
- Reduce suppliers' incentives to compete vigorously?

The Directive could place greater pressure on land known to be free of PCN, but should also enhance competition, as it will provide a baseline for soil sampling and testing as well as improved transparency and consistency in relation to the standards being met.

Small firms impact test

Businesses affected by the Directive largely fall into the category of small businesses. The Directive includes specific derogations for growers producing material for their own use, which will include smaller growers, and also includes new options in areas already affected by PCN. Smaller growers who are restricted to production in particular areas should benefit from these additional options. In relation to potatoes grown on PCN infested land, the position of smaller growers is recognised, as it is only those potatoes sent for industrial processing or grading which must go to an officially approved facility. Potatoes disposed of locally, at the farm gate or through local retail sales, for example, are not subject to official control. This reflects the lower degree of risk associated with small quantities of potatoes being sold for consumption.

Sustainable development

The Directive contributes to sustainable development through:

- Living within environmental limits

A reduction in the rate of spread of PCN will mean that less land becomes infested, thereby reducing the need for control measures (e.g. pesticides) on such land. In cases where land does becomes infested, the imposition of officially approved control programmes can monitor that suppression of the pest is being undertaken responsibly. The introduction of opportunities to grow crops on land known to be infested with PCN, provided soil is removed from the harvested plants, provides an environmentally sustainable alternative to pesticides applications.

- Ensuring a strong, healthy and just society
- Achieving a sustainable economy
- Promoting good governance

Greater transparency and consistency of requirements should lead to improved harmonisation. This should benefit sellers and buyers alike.

- Using sound science responsibly

The soil sampling and testing requirements, as well as other aspects of the Directive, such as the resistance testing provisions, were developed taking account of the best available science.

Conclusion and Evidence Plan

Directive 2007/33/EC replaces a 1969 Directive on the detection and control of PCN, with an implementation date of 1 July 2010. This IA outlines the main elements of the Directive and their impact. It also identifies those aspects of the Directive where there is scope for flexibility in interpreting the requirements. The IA forms part of a consultation package, which is intended to provide stakeholders with an opportunity to contribute to the implementation process, and provide views on areas where member states can determine their own positions. The IA should be read in conjunction with the other papers in the package, to help respond to the questions posed in the consultation paper.

Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.

Type of testing undertaken	*Results in Evidence Base?*	*Results annexed?*
Competition Assessment	Yes	No
Small Firms Impact Test	Yes	No
Legal Aid	No	Yes
Sustainable Development	Yes	No
Carbon Assessment	No	Yes
Other Environment	No	Yes
Health Impact Assessment	No	Yes
Race Equality	No	Yes
Disability Equality	No	Yes
Gender Equality	No	Yes
Human Rights	No	Yes
Rural Proofing	No	Yes

Annexes

Annex A : Summary of Cost Benefit Analyses

Two cost: benefit analyses (CBAs) were prepared to contribute to the evaluation of the Commission's original proposal and an updated version (in 2007) incorporating conclusions from Council negotiations. The CBAs inevitably included a number of uncertainties and assumptions and the estimated costs have also been refined since the CBAs were original prepared. A further version of the CBA has therefore been prepared to assist with the 2009 consultation exercise on implementation of the new Directive. Unlike the earlier versions which focused on the UK, this is based on the situation in England and Wales, to reflect the scope of the consultation exercise.

The main uncertainties associated with the CBAs include the fact that there are no accurate data on the current level of PCN infestation, although some unofficial surveys have been undertaken and there is official data concerning the number of fields found to be infested during official testing (e.g. for seed potato classification). There are published estimates of potential yield losses, but these can vary significantly. A principal aim of the new Directive is to reduce the rate of PCN spread, through intensified soil testing (which would detect infestation more reliably and at an earlier stage, thereby protecting seed potato land as well as limiting spread to ware potato land), but it is impossible to gauge accurately just how effective the new testing arrangements will be at reducing spread. This is because no testing regime can provide an absolute guarantee that PCN will not be present. The greater the volume of soil sampled, the greater the likelihood of detecting any PCN which might be present, but even then the probabilities are affected by whether PCN are distributed evenly or randomly across the field.

The CBAs considered three different scenarios, to assess the range of possible outcomes. The basic assumption was that there would be maximum benefit from the new Directive if a relatively small area was already infested with PCN (i.e. there would be a longer period until spread has caused 100% infestation), if the rate of spread was substantially reduced (i.e. if the intensified soil testing regime reduced the percentage of fields which became infested) and if the new testing regime detected low level infestation relatively quickly (i.e. ensuring that such fields were taken out of production, thereby avoiding circulation and planting of infested plant material). Conversely, there would be a reduced benefit if there was only a limited area of clean land to protect, if the intensified testing regime had only a limited effect on the number of fields that became infested and if currently infested land remained in the system for a long period.

The initial CBA was based on the following scenarios and assumptions, for the UK as a whole:

	Maximum effect scenario	Most likely scenario	Minimum scenario
Area already infested	64%	75%	90%
Yield loss	10%	9%	8%
Annual spread without Directive	2.0%	2.0%	2.0%
Annual spread with Directive	1.6%	1.8%	1.9%
Delay in years for measures to have effect	7	10	15

The results were as follows:

	Net present value
Maximum effect scenario	-£6.9m
Most likely scenario	-£20.7m
Minimum effect scenario	-£28.9m

There was a broad NPV range reflecting the varied assumptions that were used, to represent the full range of possible outcomes, but the main conclusion was that there would be a substantially negative NPV, irrespective of which scenario most closely reflected the actual outcome.

The CBA carried out following revision of the proposal assessed the same three scenarios, but with revised details of costs on, for example, soil sampling and testing, farm saved seed and plant production and compliance with official control programmes. The results were as follows:

	Net present value
Maximum effect scenario	£7.8m
Most likely scenario	-£3.8m
Minimum effect scenario	-£7.3m

This again resulted in a broad NPV range, which was expected, given that the same scenarios were being assessed, but the benefit: cost ratio was much improved. It was still not possible to say with certainty whether there would be a negative or

positive outcome, but in either case, the overall impact (spread over 20 years, the period of the analysis) would be less pronounced than under the original CBA. Sensitivity analyses were carried out to confirm that the outcome would not be significantly affected by varying the assumptions used.

The most up to date (2009) CBA focuses on the situation in England and Wales and includes refined costs. The same three scenarios have been assessed and the results are as follows:

	Net present value
Maximum effect scenario	£7.1m
Most likely scenario	£5k
Minimum effect scenario	-£1.4m

This indicates that the benefits associated with the Directive are likely to exceed costs, except under the worst case scenario. Under such a scenario, the current distribution of PCN would be greater than expected, yield loss would be higher than anticipated, there would be a longer period before the impact of intensified soil sampling was felt and the reduction in PCN spread would be less than expected. Under this scenario, it has also been estimated that official costs would be greater than estimated and a stringent approach would be taken on application of the Directive to farm saved seed production. Under the 'maximum effect' and 'most likely' scenarios it is assumed that soil sampling and testing will not be extended to farm saved seed production, which is the recommendation in the consultation paper.

In all cases the scenarios have been modelled over a 20 year period, with a discount rate of 3.5% per annum applied in line with Treasury guidance on cost:benefit appraisal.

Annex B: Outcome of impact tests not referred to in evidence base

Legal aid

The Directive does not create new criminal sanctions or civil penalties.

Carbon impact assessment

The Directive has no significant impact on carbon emissions, as the nature and scale of production of the plant species covered is likely to remain the same.

Other environmental issues

As the nature and scale of the industry is likely to remain the same, the Directive has no implications in relation to climate change, waste landscapes, water and flood, habitat and wildlife or noise pollution.

Health impact assessment

The Directive will not directly impact on health or well being and will not result in health inequalities.

Race/Disability/Gender

There are no limitations on meeting the requirements of the Directive on the grounds of race, disability or gender. The Directive does not impose any restriction or involve any requirement which a person of a particular racial background, disability or gender would find difficult to comply with. Conditions apply equally to all individuals and businesses involved in the activities covered by the Directive.

Human rights

The Directive is consistent with the Human Rights Act 1998.

Rural proofing

The majority of growers affected are based in rural areas and the Directive is designed to protect the availability of land against PCN spread and to facilitate trade in the plant species covered.

Transposition Note setting out how the Plant Health (England) (Amendment) Order 2010 implements the requirements of Council Directive 2007/33/EC on the control of potato cyst nematodes and repealing Directive 69/465/EEC

Article	***Objective***	***Implementation***	***Responsibility***
4	Requires member States to undertake official investigations for the presence of Potato Cyst Nematode in fields where plants listed in Annex I to Directive 2007/33/EC (if they are intended for the production of plants for planting, or seed potatoes intended for the production of seed potatoes) are to be planted or stored	No requirement in legislation to carry out an official investigation. The process is set out in administrative instructions. Prohibition on moving/planting PCN host material in Schedule 4B to the Plant Health (England) Order 2005.	Secretary of State (the Food and Environment Research Agency "FERA")
6	Requires member States to undertake official surveys in fields used for the production of potatoes (other than those intended for the production of seed potatoes), to determine the distribution of Potato Cyst Nematode	Article 31(1) of the Plant Health (England) Order 2005 (as amended by article 4 of the Plant Health (England) (Amendment) Order 2010).	Secretary of State (FERA)
9.1	Requires member States to regulate (as follows) the planting, storage and movement of potatoes and other plants in, or from, fields infested with European populations of Potato Cyst Nematode	Schedule 15 to the Plant Health (England) Order 2005 (as amended by article 9 of the Plant Health (England) (Amendment) Order 2010)	Secretary of State (FERA)
9.1(a)	Requires member States to ensure that potatoes intended for the production of seed potatoes are not planted in fields infested with Potato Cyst Nematode	Paragraph 3(1)(a) of Schedule 15 to the Plant Health (England) Order 2005 (as amended by article 9 of the Plant Health (England) (Amendment) Order 2010)	Secretary of State (FERA)
9.1(b) (1st sentence)	Requires member States to ensure that plants listed in Annex 1 to Directive 2007/33/EC that are intended for replanting are not planted or stored in fields infested with Potato Cyst Nematode	Paragraph 3(1)(b) of Schedule 15 to the Plant Health (England) Order 2005 (as amended by article 9 of the Plant Health (England) (Amendment) Order 2010)	Secretary of State (FERA)
9.1(b) (2nd sentence)	Provides that plants listed in point 2 of Annex 1 to Directive 2007/33/EC can be planted in a field infested with Potato Cyst Nematode if they are subject to the measures to disinfest and remove soil set out in Section III(A) of Annex III to that	Paragraphs 3(2) and (3) of Schedule 15 to the Plant Health (England) Order 2005 (as amended by article 9 of the Plant Health (England) (Amendment) Order 2010)	Secretary of State (FERA)

	Directive.		
9.2	Requires the responsible official body to prescribe that fields infested with Potato Cyst Nematode in which potatoes (other than those intended for seed potatoes) are to be planted must be subject to an official control programme to suppress Potato Cyst Nematode	Paragraph 4 of Schedule 15 to the Plant Health (England) Order 2005 (as amended by article 9 of the Plant Health (England) (Amendment) Order 2010)	Secretary of State (FERA)
10(1)(a)	Requires member States to ensure that seed potatoes and plants listed in point 1 of Annex I to Directive 2007/33/EC that come from a field infested with Potato Cyst Nematode are not planted unless they have been decontaminated	Paragraph 5 of Schedule 15 to the Plant Health (England) Order 2005 (as amended by article 9 of the Plant Health (England) (Amendment) Order 2010)	Secretary of State (FERA)
10(1)(b)	Requires member States to ensure that potatoes intended for industrial processing or grading shall be subject to the measures set out in Section III(b) of Annex III to Directive 2007/33/EC	Article 32(4) of the Plant Health (England) Order 2005 (power to serve notices requiring steps to be taken to prevent the spread of any plant pest)	Secretary of State (FERA)
10(1)(c)	Requires member States to ensure that plants listed in point 2 of Annex I to Directive 2007/33/EC that come from a field infested with Potato Cyst Nematode are not planted unless they have been subject to the measures to disinfest and remove soil set out in Section III(A) of Annex III to that Directive	Paragraph 6 of Schedule 15 to the Plant Health (England) Order 2005 (as amended by article 9 of the Plant Health (England) (Amendment) Order 2010)	Secretary of State (FERA)
11	Requires member States to ensure that the presence of Potato Cyst Nematode that results from a breakdown or change in the effectiveness of a resistant potato variety which relates to an exceptional change in the composition of nematode species, pathotype or virulence group is reported to the responsible official body	Article 42(3)(b) of the Plant Health (England) Order 2005	Secretary of State (FERA)
13	Requires member States lift restrictions on a field when it is confirmed pursuant to resampling and	Paragraph 2 of Schedule 15 to the Plant Health (England) Order 2005 (as amended by	Secretary of State (FERA)

	testing set out in Section III(C) of Annex III that Potato Cyst Nematode is no longer present	article 9 of the Plant Health (England) (Amendment) Order 2010)	