

<b>Title:</b> Introduction of measures against the introduction of Epitrix on potatoes imported from Spain: Validation IA <b>IA No:</b> Defra1949  <b>Lead department or agency:</b> Department for Environment, Food and Rural Affairs <b>Other departments or agencies:</b>	<b>Impact Assessment (IA)</b>		
	<b>Date:</b> 02/02/2016		
	<b>Stage:</b> Final		
	<b>Source of intervention:</b> Domestic		
	<b>Type of measure:</b> Secondary legislation		
<b>Contact for enquiries:</b> Richard McIntosh 01904 465632 richard.mcintosh@defra.gsi.gov.uk			
<b>Summary: Intervention and Options</b>		<b>RPC Opinion:</b> Green	

Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Two-Out? Measure qualifies as
-£147,000	£0	£0	Yes   IN

**What is the problem under consideration? Why is government intervention necessary?**  
 EU emergency measures are in place to protect against the introduction of Epitrix (potato flea beetle), which feed on tubers of potatoes, causing damage that reduces quality and value but there were nine UK interceptions of Epitrix damaged potatoes from Spain in 2015. A Food and Veterinary Office (FVO) mission in 2013 indicated that Spain was not effectively demarcating and controlling outbreak areas. A further FVO mission took place in September 2015, and a review of the EU measures is planned in light of its conclusions, but any revised EU-wide measures would not be introduced before summer 2016.

**What are the policy objectives and the intended effects?**  
 In order to provide improved protection pending a review of the emergency measures by the EU and demonstration of reliable compliance in Spain, we intend to take action to minimise the risk of Epitrix being introduced into the UK by requiring that all potatoes imported from non-demarcated areas of mainland Spain be washed before export, which kills or removes any Epitrix which might be present.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**  
 Option 0 - Do nothing and await a review by the EU of the current emergency measures following the FVO mission to Spain in September 2015.  
 Option 1 - Introduction of national legislation against Epitrix requiring all potatoes imported from non-demarcated areas of mainland Spain to be washed before export, pending a review by the EU of the current emergency measures following the Food and Veterinary Office mission to Spain in September 2015. The EU Plant Health Directive (2000/29/EU) permits the introduction of national legislation in response to findings of harmful plant pests, or where there is imminent danger of such pests being introduced. National legislation is permitted while eradication or containment is the objective and on a temporary basis, pending consideration of EU measures. This is the preferred option.

<b>Will the policy be reviewed?</b> It will be reviewed. <b>If applicable, set review date:</b> 01/2018					
Does implementation go beyond minimum EU requirements?				N/A	
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.		<b>Micro</b> Yes	<b>&lt; 20</b> Yes	<b>Small</b> Yes	<b>Medium</b> Yes
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)				<b>Traded:</b> N/A	<b>Non-traded:</b> N/A

*I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.*

Signed by the responsible Minister: \_\_\_\_\_ Lord Gardiner \_\_\_\_\_ Date: \_\_\_\_\_ 19/02/2016 \_\_\_\_\_

# Summary: Analysis & Evidence

# Policy Option 1

**Description:** Introduction of national legislation against Epitrix requiring all potato imported from non-demarkated areas of mainland Spain to be washed before export, pending a review by the EU of the current emergency measures

## FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate:

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate		£15,000	£147,000

### Description and scale of key monetised costs by 'main affected groups'

Additional resource requirement on the Plant Health and Seeds Inspectorate (PHSI): £147,000 in total over a two year period

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

Negligible restriction in choice, as unwashed Spanish potatoes will no longer be available for purchase by either businesses or consumers

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate			

### Description and scale of key monetised benefits by 'main affected groups'

### Other key non-monetised benefits by 'main affected groups'

Helps to protect around £260m of additional value to the UK economy that is provided each year by the UK potato sector, although the precise contribution of this policy cannot be quantified. (see Benefits of the Regulation section below for details.)

Promotes a strong biosecurity message, with encouragement for other countries to ensure that they export non-infested goods to the UK.

### Key assumptions/sensitivities/risks

Discount rate (%) 3.5%

The Price of Spanish potatoes in the UK is not expected to increase to reflect the additional cost associated with any washing of potatoes – as in this instance, UK consumers would substitute towards potatoes sourced from alternative countries. UK distribution supply chain profits unlikely to be affected (as we import significantly more potatoes from other countries, so supplies remain).

An additional resource requirement of 1,500 hours per year for inspections is estimated by PHSI.

## BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: £0	Benefits: £0	Net: £0	Yes	IN

# Evidence Base (for summary sheets)

## Summary

Following the interception of *Epirix* on a number of consignments of potatoes imported from Spain, we intend to take action to minimise the risk of this damaging pest being introduced into the UK. It is important that strengthened measures are in place in time for the 2016 potato import season, which increases in volume from February, both to provide clarity to the industry and to ensure strengthened protection against introduction of the pest.

We are proposing to lay in Parliament an order under the Plant Health Act which will, inter alia, require that all potatoes imported from non-demarcated areas of mainland Spain be washed before export, which kills or removes any *Epirix* which might be present. The order, which is due to come into force on 24 February 2016, will amend the Plant Health (England) Order 2015. Similar measures are being planned by the other Devolved Administrations.

## Policy background and rationale for intervention

The Plant Health Risk Group, which is a monthly meeting of UK Plant Health Authorities, has recommended that national legislation be introduced against *Epirix* (potato flea beetle). *Epirix* are potato pests originating from the Americas and introduced to Europe, with distribution currently limited to Spain and Portugal. *Epirix* larvae feed on the tubers of potatoes, causing damage that reduces quality and value.

EU emergency measures are already in place to protect against this damaging pest (Commission Implementing Decision 2012/270), but there have been nine UK interceptions of *Epirix* damaged potatoes from Spain in 2015. A Food and Veterinary Office (FVO - the European Commission's auditors) mission in 2013 indicated that Spain was not effectively demarcating and controlling outbreak areas. Commission Implementing Decision 2012/270 has requirements for movement of potatoes from a demarcated area: these must either be washed or brushed to remove excess soil.

Potatoes from Spain are included in a statutory notification scheme for imports from other EU countries. The UK is currently inspecting 100% of all notified unwashed potato consignments from Spain, and 50% of notified washed consignments. Any damage found on unwashed consignments leads to destruction or re-export. The nine consignments intercepted in the UK originated a considerable distance from the original demarcated areas in Spain and it is possible the pest is more widespread in Spain.

A further Food and Veterinary Office mission took place in September 2015, following UK representations at the EU Plant Health Standing Committee in July 2015, which will help determine the case for a review of the EU Decision. However, if changes are proposed, it is unlikely that they will be introduced before summer 2016. It is important that strengthened measures are in place in time for the 2016 potato import season, which picks up in terms of volume from around February, both to provide clarity to the industry and to ensure strengthened protection against introduction of the pest, which should ultimately reduce costs to business.

*Epirix* pose a serious threat to potato production in the UK. Potato tubers, or soil attached to the tubers, could carry the pest (as pupae, adults or possibly larvae) over long distances. The import of potatoes from infested areas in Portugal and Spain provides a potential pathway of introduction to the UK. If *Epirix* are accidentally introduced to the UK, they are likely to spread relatively quickly as the adult beetles can fly. Unless detected very early, eradication would be almost impossible because the pests can feed on a wide range of hosts. Once established, control measures would be difficult and costly. The yield of potato crops is not affected in Portugal but the commercial value of the tubers is greatly reduced. Consignments of affected tubers have been rejected by processors and packers.

In general, *Epirix* species complete their development on plants belonging to the family Solanaceae, including potato, tomato (*Solanum lycopersicum*), aubergine (*Solanum melongena*), black nightshade (*Solanum nigrum*), cut-leaved nightshade (*Solanum triflorum*) and thorn apple (*Datura stramonium*). The adults, however, can feed on the foliage of a wide range of unrelated plants including several crops and various common weeds, such as, cabbage (*Brassica oleracea*), cucumber (*Cucumis sativus*), beet (*Beta*

*vulgaris*), lettuce (*Lactuca sativa*), maize (*Zea mays*), beans (*Phaseolus* spp.) and fat hen (*Chenopodium album*).

Both adults and pupae can over winter in the soil and in crop debris, and emerge in spring. Under favourable conditions, as in Spain and Portugal, there may be at least three generations per year which could theoretically result in 20,000 individuals from each female in a single season. The first peak in the number of adults is seen in mid-June, the second in mid-August and the third in late September. Eggs are laid in the soil near the base of potato plants and newly hatched larvae move towards the root system and start to feed on the roots and tubers. Pupation occurs in the soil.

The best and most cost-effective control is to avoid the introduction of this pest. Once introduced, *Epitrix* are likely to be very difficult to eradicate unless they are detected very early and prompt action is taken. This is because they have a wide host range that includes several common weeds and they are very mobile. The most effective way of preventing tuber damage is to avoid introducing these pests into the UK. The two most important pathways for spreading *Epitrix* are seed potatoes with soil attached and ware potatoes with soil attached. This is because adult beetles, pupae and possibly larvae could be present with the tubers. Imports from Portugal and infested parts of Spain clearly pose a significant risk. Portugal is not believed to be a significant source of seed potatoes for the UK, but the UK has been an important Portuguese export market for ware potatoes, although the quantities imported have been small in recent years. Data from Eurostat indicate that between January and April 2009, only 106 tonnes of Portuguese ware were imported into the UK. Fortunately, imports of ware potatoes in recent years have been mainly washed prior to export and this minimises the risk of potato flea beetles being introduced. The risk posed by Spanish ware is higher. The UK imports approximately 30,000 tonnes of ware potatoes from Spain so vigilance is vital, especially given Spain's lack of effective official containment or eradication measures and the interceptions in the UK to date.

In response to these developments we propose to take action to minimise the risk of *Epitrix* being introduced into the UK on potatoes imported from Spain. We are proposing to lay in Parliament an order under the Plant Health Act which will amend the Plant Health (England) Order 2015 to provide improved protection in advance of any further EU consideration of this issue. The order will require all potatoes imported from non-demarcated areas of mainland Spain to be washed before export, which kills or removes any *Epitrix* which might be present. Although *Epitrix* is also known to be present in Portugal, the measures will be restricted to potatoes from Spain, as there is no evidence of *Epitrix* damaged potatoes being exported from Portugal. Imposing a washing requirement will allow imports to continue (some importers have switched to washed potatoes already to reduce the risk of importing infected potatoes).

Stakeholders are broadly supportive of the measures. Of the 8 responses received to a consultation held in November, 6 (including the main trade organisations) were either supportive or expressed no opinion. 2 individual potato importers felt that the current EU measures provided sufficient protection. In response to trade concerns, imports from the Balearic Islands will be exempt as they are geographically separate from the outbreak area and washing could be damaging to the thin skinned potatoes produced there. The national measures will apply to all potatoes from mainland Spain not currently covered by the EU emergency measures (which apply to potatoes coming from demarcated areas and already require that they be washed or brushed, and accompanied by a plant passport). In other words all potatoes from non-demarcated areas should be washed before export.

A review of the EU measures will be carried out following consideration of the conclusions of an FVO audit carried out in Spain last autumn. This will include whether there should be any changes to the scope of the legislation, such as areas to be demarcated in the event of an outbreak and disinfestation treatments. In particular, there will need to be a discussion about whether brushing remains an effective technique, given the finding of a larva lodged in a potato tuber intercepted in the UK. The effectiveness of brushing as mitigation is under question, as larvae intercepted by the UK were found under the skin of potatoes and thus would not have been removed by brushing. The FVO conclusions will be presented to the EU Plant Health Standing Committee in the first half of 2016. The proposed national measures will provide improved protection in relation to potatoes originating from non-demarcated areas pending the outcome of the EU review and until such time that it can be demonstrated there is reliable compliance in Spain. The national measures focus only on non-demarcated areas of Spain, as the EU measures apply to demarcated outbreak areas in both Spain and Portugal and there have been no issues regarding

potatoes from such areas, where there is greater official oversight and issuing of plant passports. Although brushing is an approved disinfestation technique under the EU measures, we are recommending that all potatoes from non-demarcated areas (other than the Balearics) should be washed before export, as washing offers greater assurance that *Epitrix* beetles and larvae will be removed/killed. The current evidence supports taking a precautionary approach, given the recurrent interceptions in 2015 and the fact there is no official oversight of potatoes exported from non-demarcated areas.

The market does not naturally provide incentives for the protection of plant health, due to the presence of 'negative externalities'. If a trader exports/imports diseased crops then they will not face the full cost of that damage, which is borne by wider society. In addition, if an exporter/importer seeks to protect or enhance plant health through their efforts, then others will also benefit but without having paid for the service – and this creates incentives to free-ride on others' efforts. For this reason, a system of plant health protection is justified.

In response to a request from the FCO, we are working closely with them to ensure the Spanish authorities understand the rationale for our policy and in particular that our decision has been reached on grounds of plant health and not from any wish to restrain trade.

### Options considered

Option 0 - Do nothing and await a review by the EU of the current emergency measures following the FVO mission to Spain in September 2015. If changes are proposed by the EU, it is unlikely that they will be introduced before summer 2016. It is important that strengthened measures are in place in time for the main 2016 potato import season which will pick up from around February, both to provide clarity to the industry and to ensure strengthened protection against introduction of the pest. In 2015 the UK intercepted nine consignments of potatoes from Spain, with evidence of *Epitrix* damage. These were all from non-demarcated areas. The cases include two of unwashed potatoes, where there is a much greater risk of live pests being present. These findings illustrate that there is an imminent threat of the pest being introduced to the UK from Spain unless stronger measures are taken.

Option 1 - Introduction of national legislation against *Epitrix* requiring all potatoes imported from non-demarcated areas of mainland Spain to be washed before export, pending a review by the EU of the current emergency measures following the Food and Veterinary Office mission to Spain in September 2015. The EU Plant Health Directive (2000/29/EU) permits the introduction of national legislation in response to findings of harmful plant pests, or where there is imminent danger of such pests being introduced. National legislation is permitted while eradication or containment is the objective and on a temporary basis, pending consideration of EU measures. The national legislation will not cover potatoes from the Balearics, which are geographically separate from outbreak areas on mainland Spain, or to potatoes from currently demarcated areas, which are subject to the EU Decision and where there is no evidence of non-compliance. **This is the preferred option.**

### **Proportionate Assessment of Direct Costs & Benefits to Business (following OITO methodology)**

The proposed measure would require all potatoes imported from non-demarcated areas of mainland Spain to be washed before export to protect against the introduction of *Epitrix*. The key impact will fall on Spanish potato producers who export to the UK and do not currently wash their potatoes.

#### **Costs of the Regulation**

This national legislation is likely to be in place for no more than 2 years, pending a review of the EU requirements which may then be extended to require washing of more potatoes.

Spain exports around 20,000 tonnes of ware potatoes to the UK each year, at a value of around £5.5m. (Based on HMRC 2015 data). Although it has not been possible to determine the volume of these potatoes that are not currently washed, the overall volume is approximately only 1% of total potato imports to the UK (based on *Agriculture in the UK 2014*, total potato imports of 1.8m tonnes). Even in peak months where the UK relies more heavily on Spanish potato imports the reliance in these months is not expected to be more than around an average of 10% imports from Spain. (Based on HMRC data, ware potatoes from Spain represent between 4-18% of total imports during the peak months between

April and July, with a further peak in December. Eurostat data estimates potatoes from Spain represent 6-10% of total imports in June and July.) Based on this evidence, and the fact that the price of Spanish potatoes is typically the middle of the price range (based EUROSTAT data 2012-2014), we assume that the price of Spanish potatoes in the UK will not increase to reflect the additional cost associated with any washing of potatoes – as in this instance, UK consumers would substitute towards potatoes sourced from alternative countries. Instead, Spanish producers are expected either to absorb the additional cost of cleaning unwashed potatoes within their profit margins, or sell the potatoes to other parts of the world where this proposed legislation is not in place.

The only impacts that may be felt in the UK (and are expected to be negligible) are that:

- Sellers of unwashed Spanish potatoes in the UK, as well as other businesses affected in the UK distribution supply-chain, will lose their sales profit – unless they are able to substitute in with replacement products. As we import significantly more potatoes from other EU countries including France, the Netherlands, Germany and Belgium each month (based on Eurostat data 2012-2014) and from non-EU countries such as Egypt and Israel, it is likely that other sources of potatoes will be available - and so profits in the UK distribution supply chain are unlikely to be affected.
- Unwashed potatoes have a longer shelf/storage life than washed potatoes and so there would be a reduction in the choice of potatoes to UK businesses and consumers.

Summary of Total Costs to UK Businesses: The gross annual cost to UK businesses is therefore expected to be zero (and with only a negligible restriction in choice, as unwashed Spanish potatoes will no longer be available for purchase). **As a direct result, if projected forwards over ten years, and expressed as an ‘Equivalent Annual Net Cost to Business’ (EANCB), the EANCB will also be zero.**

Costs to UK Government: APHA Plant Health and Seeds Inspectorate (PHSI) will inspect 50% of all consignments of potatoes from Spain (i.e. those coming from demarcated areas, other parts of mainland Spain, or the Balearics). Eurostat data from 2012 to 2014 suggests we are only currently notified of about a 1/3 of consignments imported from Spain. Additional compliance visits will be undertaken across the industry to ensure all consignments are notified to the PHSI. Statutory action (destruction or re-export) would be taken if there is evidence of live pest on any consignment, or there are any symptoms of the pest on unwashed potatoes. This additional resource requirement on PHSI (reflecting increased visits over and above those already carried out, and additional compliance visits across the industry to ensure all consignments are notified) is estimated at around 1,500 hours per year, at an hourly cost of £50 per hour, which equates to an annual cost of around £75,000. Given that this represents around 3% of PHSI’s surveillance budget, this fixed budget will need to be reprioritised to accommodate this additional requirement. **Over a two year period, this cost would be £150,000 (or a Net Present Value of Costs of around £147,000 over a standard ten year appraisal period).**

## **Benefits of the Regulation**

The main benefit of the ban on imports of unwashed Spanish potatoes is the reduced risk of disease spread. *Epitrix* could damage, or at the extreme destroy, the UK potato industry:

– based on Defra (May 2015): *Agriculture in the UK 2014*. Table 7.11 and 4.1

- Total UK potato production 5.9m tonnes in 2014 (provisional)
- Value of production £617m in 2014
- Gross Value Added (i.e. the measure of added value to the economy each year) of around £260m per year (based on apportioning the total agriculture GVA by the percentage of potato output at market prices of total agricultural output).

Therefore, this plant health regulation helps to protect around £260m of additional value to the UK economy that is provided each year by the UK potato sector.

Wider benefits:

- include promoting a strong biosecurity message, with an encouragement for other countries to ensure than they export non-infested goods to the UK, to avoid similar action in future.

- in relation to export opportunities through maintaining the UK as free from *Epitrix*.