FINAL REPORT OF AN AUDIT
CARRIED OUT IN
SPAIN
FROM 11 SEPTEMBER 2018 TO 21 SEPTEMBER 2018
IN ORDER TO
EVALUATE THE SITUATION AND CONTROLS FOR TECIA SOLANIVORA
Executive Summary

This report describes the outcome of an audit carried out by the Directorate-General for Health and Food Safety in Spain from 11 to 21 September 2018. The objective of the audit was to evaluate the situation of the Guatemalan potato moth (Tecia solanivora) and the measures applied for its control.

The audit found that a comprehensive survey programme for T. solanivora is in place. This has reliably established the distribution of the pest in Spain, and in particular, has confirmed its absence from the main ware and seed potato producing areas of the country.

Comprehensive control measures have been established in the national legislation and contingency plan with the objective of eradicating the pest. The audit found that these measures have been implemented and enforced following any findings of the pest and that this has led to a rapid and significant reduction of its population. The continued application of these measures should lead in time, to the eradication of T. solanivora from Spain.
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<tr>
<td>ACPHS</td>
<td>Autonomous Community Plant Health Service</td>
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<td>EC</td>
<td>European Community</td>
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<td>EPPO</td>
<td>European and Mediterranean Plant Protection Organisation</td>
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<td>EU</td>
<td>European Union</td>
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<td>ha</td>
<td>Hectares</td>
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<tr>
<td>ISPM</td>
<td>International Standard for Phytosanitary Measures</td>
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<td>MAPA</td>
<td>Ministry of Agriculture, Fisheries and Food (Ministerio de Agricultura, Pesca y Alimentación)</td>
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<tr>
<td>Royal Decree</td>
<td>Royal Decree 197/2017 of 3 March 2017, establishing a national programme for the control of T. solanivora</td>
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<tr>
<td>SEPRONA</td>
<td>The Nature Protection Service of the Civil Guard (Guarda Civil Servicio de Protección de la Naturaleza)</td>
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<tr>
<td>SERPA</td>
<td>‘Public Society of Services of the Principality of Asturias’ (Empresa Pública Sociedad de Servicios del Principado de Asturias)</td>
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<tr>
<td>TRAGSA</td>
<td>Transformacion Agraria Sociedad Anonima, SA is a public company funded for the performance of works and services in rural areas</td>
</tr>
<tr>
<td>TRAGSATEC</td>
<td>Tecnologías y Servicios Agrarios, SA is a subsidiary of TRAGSA established for carrying out consulting and engineering projects.</td>
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1 INTRODUCTION

This audit took place in Spain from 11 to 21 September 2018 as part of the Directorate-General for Health and Food Safety’s planned audit programme. The audit team consisted of two auditors from the Commission services and one national expert from a Member State. It was accompanied throughout the audit by representatives of the Single Authority for plant health, the Ministry of Agriculture, Fisheries and Food (MAPA - Ministerio de Agricultura, Pesca y Alimentación).

An opening meeting was held on 11 September 2018 at the headquarters of MAPA in Madrid, during which the objectives, scope and itinerary for the audit were confirmed and additional information necessary for the conduct of the audit was requested.

Unless specified otherwise, the data quoted in the following sections and elsewhere in the report, was provided by the Single Authority.

2 OBJECTIVES AND SCOPE

The objective of the audit was to evaluate the situation of Tecia solanivora - the Guatemalan potato moth - and the measures applied for its control. The audit focused on the surveys for T. solanivora and the control measures that have been taken, or are planned to be taken, in order to eradicate or inhibit its spread, as required by Article 16(1) of Directive 2000/29/EC.

The following table provides details of the meetings held and sites visited in order to achieve this objective:

<table>
<thead>
<tr>
<th>Meetings/visits</th>
<th>No.</th>
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<td>Competent Authorities</td>
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<td>National</td>
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<td>Regional</td>
<td>3</td>
<td>Autonomous Communities (AC) of Asturias, Castilla y León and Galicia</td>
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<tr>
<td>Other control organisations</td>
<td>2</td>
<td>TRAGSA Group (Asturias and Galicia) and SERPA (Asturias)</td>
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<tr>
<td></td>
<td>1</td>
<td>Guarda Civil (SEPRONA) - Galicia</td>
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<tr>
<td>Stakeholder organisations</td>
<td>1</td>
<td>Seed potato producers association Castilla y León;</td>
</tr>
<tr>
<td>Official control sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demarcated Areas</td>
<td>3</td>
<td>Asturias and Galicia</td>
</tr>
<tr>
<td>Potato producers, stores and retailers</td>
<td>5</td>
<td>(Buffer Zone) Galicia and Valencia</td>
</tr>
<tr>
<td>Destruction facilities</td>
<td>1</td>
<td>Galicia</td>
</tr>
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</table>

1 https://ec.europa.eu/food/audits_analysis/audit_programmes_en
3 LEGAL BASIS

The audit was carried out under the general provisions of European Union legislation, in particular Articles 21 and 27a of Council Directive 2000/29/EC.

3.1 RELEVANT EU LEGISLATION AND INTERNATIONAL STANDARDS

Council Directive 2000/29/EC provides for protective measures against the introduction into and spread within the EU of organisms harmful to plants or plant products. The references for this Directive and other EU legislation cited in the report are provided in Annex 1. Legal acts quoted refer, where applicable, to the last amended version.

International standards issued by the International Plant Protection Convention (ISPMs) and the European and Mediterranean Plant Protection Organisation (EPPO), provide guidance on specific issues matters relating to plant health. The standards of particular relevance to the audit are listed in Annex 2.

4 BACKGROUND

4.1 PREVIOUS AUDITS AND COUNTRY PROFILE

This was the 14th audit of relevance to plant health carried out by the Directorate-General for Health and Food Safety in Spain since 2012, including one, in 2016 (Ref: DG(SANTE)2016-8797 – hereafter ‘the previous audit’), which included an initial evaluation of the situation and controls for T. solanivora.

The reports of all previous audits are available on the Directorate-General’s website: http://ec.europa.eu/food/audits-analysis/audit_reports/index.cfm.

The Directorate-General has also published a country profile for Spain2, which provides a detailed description of the official control systems for plant health that are of relevance to this audit.

4.2 TECIA SOLANIVORA

The Guatemalan potato moth, Tecia solanivora, is a harmful organism, listed as Scrobipalpopsis solanivora Povolny in Annex II, Part A, Section I to Directive 2000/29/EC. Its only known host is potato (Solanum tuberosum) and the moth may cause extensive damage to both the growing crop and stored tubers. It is widespread in Central America and parts of South America, and was found in the Canary Islands for the first time in 1999. The moth has since spread throughout Tenerife and outbreaks have been found on Gran Canaria and La Palma. It has also been found in stored potatoes on La Gomera and Lanzarote.

The pest was found for the first time in continental Europe in 2015, in Galicia (Provinces of A Coruña and Lugo), and in 2016, in the western most municipalities of Asturias. The pest

2 http://ec.europa.eu/food/audits-analysis/country_profiles/details.cfm?co_id=ES
has not been found outside of these two Autonomous Communities; its distribution at the time of the audit is detailed in section 5.2 below.

MAPA has published detailed information on *T. solanivora* in Spain and the Canary Islands. The EPPO data sheet for the pest also provides information on its biology, means of spread and its control.

### 4.3 Production of Hosts of *Tecia solanivora*

Spain produces approximately 2.2 million tonnes of potatoes annually, planted on a total area of 67 000 ha. The commercial production of potatoes is concentrated in three Autonomous Communities: Castilla y León (20 426 ha in 2017), Galicia (19 723 ha) and Andalucía (11 159 ha). The production of potatoes in Asturias (approximately 800 ha) and those provinces in Galicia where *T. solanivora* has been found, is very limited and takes place mainly in small plots for personal consumption.

The Autonomous Community plant health services (ACPHS) for Galicia and Asturias informed the audit team that there are usually two potato crops each year; the first, harvested before April, is usually produced from farm-saved (i.e. non-certified) seed. The second, main crop, harvested by September is produced from certified seed, mainly imported from the Netherlands and France. The practice of using farm-saved seed, which is often exchanged among family members, is believed by the ACPHS to have contributed significantly to the establishment and local spread of the pest, and has been targeted in their information campaigns and control measures.

### 5 Findings and Conclusions

#### 5.1 Organisation of Official Controls

**Legal requirements**

Article 16(1) of Directive 2000/29/EC

Commission Directive 93/50/EEC

**Findings**

#### 5.1.1 Competent authorities

1. MAPA stated that the structure and organisation of the competent authorities for plant health in Spain are as described in the Country Profile issued by DG Health and Consumers. In summary;

   - MAPA acts as the Single Authority for plant health. Its responsibilities include the co-ordination of the activities of the ACPHS. At the political level this is done through the Sectoral Council for Agriculture and Rural Development, and at the

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4 [https://www.eppo.int/QUARANTINE/data_sheets/insects/DS_Tecia_solanivora.pdf](https://www.eppo.int/QUARANTINE/data_sheets/insects/DS_Tecia_solanivora.pdf)
operational level, the Coordination Committee for Plant Health. The Coordination Committee *inter alia* oversees the development and approval of national control legislation and contingency plans, relating to plant health;

- The ACPHS have exclusive responsibility for the implementation of official controls in their respective Communities; they may however delegate certain tasks to other organisations, to be carried out under their supervision;

- The ACPHS of Galicia and Asturias have delegated certain controls concerning *T. solanivora* to the TRAGSA Group⁵ and SERPA (*Empresa Pública Sociedad de Servicios del Principado de Asturias*)⁶ respectively. These are both public state-owned companies;

- SEPRONA, the Nature Protection Service of the Civil Guard (*Guarda Civil Servicio de Protección de la Naturaleza*), carries out controls, including road checks, to ensure compliance with the control measures for *T. solanivora* in collaboration with the ACPHS (see section 5.3 below).

### 5.1.2 Legislation

2. The report of the previous audit provides a summary of the national and regional legislation for the control of *T. solanivora*, which was in place at that time. MAPA informed the audit team that, in light of the further spread of the pest and the recommendations of the previous audit, Royal Decree 197/2017⁷ establishing a national programme for the control of *T. solanivora* (hereafter 'the Royal Decree'), was adopted in 3 March 2017. The National Contingency Plan for the control of the pest, which had already been drafted at the time of the previous audit, was updated at the same time to reflect the revised measures established by the Royal Decree. The control measures and their implementation, are detailed in section 5.3 below.

3. Following publication of the Royal Decree, the Autonomous Communities adopted new legislation to implement its requirements, taking account of the conditions in their respective territories and where necessary, to revise existing demarcated areas, to ensure they were in line with the new criteria established by the Royal Decree.

4. The ACPHS for Galicia informed the audit team that three Resolutions concerning *T. solanivora* had been adopted since the previous audit, and that their action plan for the eradication and control of *T. solanivora*, which was in place at the time of the previous audit, had been updated to reflect the measures introduced by the Royal Decree and National Contingency Plan. Details of the regional legislation and action plan are available on the website of the *Xunta de Galicia*⁸:

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⁵ See [http://www.tragsa.es/es/Paginas/default.aspx](http://www.tragsa.es/es/Paginas/default.aspx) for further information on TRAGSA and its activities

⁶ See [https://www.serpasa.es/](https://www.serpasa.es/) for further information on SERPA and its activities


5. The ACPHS for Asturias informed the audit team that five Resolutions concerning *T. solanivora* had been adopted since the previous audit, to revise the demarcated areas following new findings of the pest. The full text of the Resolutions is available on the website of the ACPHS.\(^9\)

6. The audit team noted that the national legislation and contingency plan, together with the relevant regional legislation and action plans, establish appropriate control measures to eradicate, or at least inhibit the spread of *T. solanivora*, in line with Article 16(1) of Directive 2000/29/EC, and a clear legal basis for their implementation.

5.1.3 Registration of producers, storage facilities and retailers of potatoes

7. MAPA informed the audit team that all producers of seed potatoes are registered by the ACPHS and are subject to the obligations and checks established by Marketing Directive 2002/56/EC\(^10\) and the provisions for their movement ('plant passports') in Annex IV Part A Section II to Directive 2000/29/EC.

8. Commercial warehouses for potatoes intended for consumption ('ware potatoes') are registered in accordance with Directive 93/50/EEC and EU food safety legislation. The obligations of such places include the issue of labels or a mark to accompany ware potatoes indicating their registration number, in line with item 18.5 of Annex IV Part A Section I to Directive 2000/29/EC.

9. With the exception of those situated within a demarcated area, producers of ware potatoes and private stores (i.e. those where potatoes grown by and used by the householder are stored) are not registered in Spain, which is in line with the above Directives. The requirements for those places situated in demarcated areas are detailed in section 5.3 below.

5.1.4 Communication with stakeholders and the public

10. MAPA informed the audit team that the national information campaign, which was launched following the first findings of *T. solanivora*, has since been expanded significantly. A wide range of information, aimed at the public as well as professionals active in the potato sector (e.g. agronomists, advisors and retailers), has been distributed by all ACPHS in Spain. This is done at trade fairs, markets and specific seminars and meetings arranged with stakeholders. There has also been detailed coverage of the moth in television programmes and news bulletins, which was widely recalled by many of the stakeholders met by the audit team.

11. MAPA provided details of the information campaigns in each Autonomous Community as well as examples of the publicity material provided to stakeholders. The audit team

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\(^9\) [https://www.asturias.es/portal/site/webasturias/menuitem.4b280f8214549ead3e2d6f77f2300030/?vgnextoid=018f9ca10cb3d510VgnVCM10000098030a0aRCRD&vgnextchannel=6e63fbc8b6bd210VgnVCM1000002f03003RCRD&i18n.http.lang=es](https://www.asturias.es/portal/site/webasturias/menuitem.4b280f8214549ead3e2d6f77f2300030/?vgnextoid=018f9ca10cb3d510VgnVCM10000098030a0aRCRD&vgnextchannel=6e63fbc8b6bd210VgnVCM1000002f03003RCRD&i18n.http.lang=es)

\(^10\) [https://ec.europa.eu/food/plant/plant_propagation_material/legislation/eu_marketing_requirements_en](https://ec.europa.eu/food/plant/plant_propagation_material/legislation/eu_marketing_requirements_en)
noted that this focuses on symptoms of infestation and good bio-security practices to prevent the arrival of the moth, as well as the action to take, including the contact details for the ACPHS, if the presence of the moth is suspected.

12. The ACPHS of Galicia and Asturias informed the audit team that an intensive awareness raising campaign targeting the public, municipal authorities and other stakeholders, was carried out in 2018, with the objective of ensuring that all parties were aware of the presence of the moth, and the restrictions on the planting, storage and movement of potatoes in and out of demarcated areas.

13. The audit team noted that those stakeholders, including householders, met during the audit had a high level of awareness of *T. solanivora*, its symptoms, and the measures that they were required to take for its control, and to minimise the risk of infestation.

<table>
<thead>
<tr>
<th>Conclusion on organisational aspects of plant health controls</th>
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<tbody>
<tr>
<td>14. The clear organisation of the plant health controls, including the national legislation and contingency plans, related to <em>T. solanivora</em>, provide a sound basis for ensuring the timely implementation of appropriate control measures following a finding of the pest.</td>
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<tr>
<td>15. The extensive publicity campaigns concerning <em>T. solanivora</em>, should ensure greater awareness of the moth, and the prompt notification of any suspected new outbreaks.</td>
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### 5.2 SITUATION OF *TECIA SOLANIVORA*

**Legal requirements**

- Directive 2000/29/EC
- Decision 2014/917/EU
- Directive 2002/56/EC
- ISPMs 4, 6 and 8

**Findings**

**5.2.1 Notifications of presence**

16. MAPA informed the audit team that *T. solanivora* had, at the time of the audit, been found in 33 municipalities in Galicia (15 in the Province of A Coruña, and 18 in the Province of Lugo) and 13 municipalities in Asturias. The Royal Decree established new criteria for delimiting demarcated areas, and as a result, a number of the existing areas were revised and extended. The situation of *T. solanivora* in continental Spain at the time of the audit is illustrated in Figure 1 below.
17. MAPA notified the new findings to the Commission and other Member States, in line with Decision 2014/917/EC. The most recent finding in a new municipality prior to the audit, was in March 2018, when the pest was detected in the municipality of Muxía, on the west coast of A Coruña in Galicia. The audit team visited the demarcated area to evaluate the control measures that had been taken, as detailed in section 5.3.1 below.

5.2.2 National survey programme

18. A national survey programme for *T. solanivora* has been carried out since the first findings of the moth in Spain. Specific surveillance is carried out in the Autonomous Communities where the pest is present, which is detailed in section 5.2.3 below.

19. The strategy and methodology for the national survey programme are established in the Survey Protocol, which forms part of the National Contingency Plan, and implements Article 4 of the Royal Decree. This requires that:

- All ACPHS must carry out surveys and other controls to detect the presence of the pest. These must include high-risk areas, which are defined in the Protocol, and include potatoes planted close to key transport routes;
- Visual inspections of the growing ware potato crops and stored tubers must be carried out at the same time and location as those required for potato pests subject to EU emergency (*Epitrix* sp.) \(^{11}\) and long-term measures\(^{12}\). All seed potato lots


must be subjected to visual inspections of the growing crop and harvested tubers, in line with the same measures, and Directive 2002/56/EC;

- Pheromone traps must be installed in fields and stores, all year. They must be checked every 15 days in demarcated areas, and every 30 days elsewhere.

20. The ACPHS are responsible for developing and implementing survey plans in line with the Survey Protocol. The audit team examined the survey plan for Castilla y León and noted that visual inspections had been carried out for all seed lots in the field and of tubers, either at time of harvest, or after, as well as 1 173 inspection of ware potatoes in stores. The ACPHS had also installed 25 pheromone traps, targeting high-risk locations as specified in the Survey Protocol, including potato fields close to major transport routes and warehouses and retailers handling potatoes from other Autonomous Communities. No evidence of \textit{T. solanivora} was found by the survey.

21. MAPA informed the audit team that the following inspections were carried out in the national survey for \textit{T. solanivora} in the 2017/2018 growing season:

\textbf{Surveillance in fields:}

- 2 428 fields (100%) of certified seed potatoes;
- 4 fields of farm-saved seed potatoes;
- 2 720 fields with ware potatoes were inspected.

\textbf{Surveillance in warehouses:}

- 766 lots of seed potato and 944 lots of ware potato were inspected at time of harvest or in stores.

22. MAPA informed the audit team that professional producers, which are defined as those with > 5 ha of production, are required to use a professional agronomist, who has been trained and authorised by the ACPHS and as such is aware of harmful organisms of concern to the crops for which they are responsible, and to check for these during the course of their activities. Such professionals are legally obliged to inform the ACPHS of any suspected harmful organisms.

23. No evidence of the presence of \textit{T. solanivora} outside of the demarcated areas was found during the national surveys, or reported by stakeholders. With limited exceptions, EU legislation does not establish specific criteria for surveys for harmful organisms, the national survey programme for the pest, is however in line with the requirements for surveillance established in ISPM No's 4, 6 and 8.

\textbf{5.2.3 Specific surveys}

24. The Survey Protocol establishes requirements for specific surveys to be carried out in demarcated areas, to ensure the correct delimitation of the area and to monitor the pest populations. The surveillance is primarily trap-based, as the planting of any potatoes in
infested areas is prohibited, and restricted in buffer zones, with the result that there are not many crops or tubers to inspect visually in those areas.

25. The Protocol specifies that the traps should be distributed based on a minimum of 1 trap per 1 x 1 km grid in infested areas, and 1 per 5 x 5 km grid in buffer zones. Additional traps should be installed in warehouses and private stores with potatoes and other high-risk locations throughout the demarcated areas. The higher intensity of trapping in infested areas is intended to also act as a mass trapping programme for the (male) moths. The surveys carried out in Galicia and Asturias are detailed in the following sections.

5.2.3.1 Specific surveys in Galicia

26. The ACPHS of Galicia has delegated the implementation of the trapping programme to TRAGSATEC, which is part of the TRAGSA group. TRAGSATEC are responsible for installing and checking the traps, and changing the pheromone lures at the frequency prescribed by the Survey Protocol. The traps are geo-referenced and the date and details of inspections and changes of pheromone lure are recorded and uploaded into a regional database, using smartphones or tablets with an application developed for that purpose.

27. In total, 1,431 traps have been installed in fields in the demarcated areas, and 448 traps (175 in A Coruña and 273 in Lugo) have been installed in all private stores and a further 70 in commercial warehouses in the demarcated areas.

28. The surveillance of the areas outside of the demarcated areas in Galicia is carried out in line with the national survey programme. The ACPHS performs visual inspections during the growing season and of potatoes in store in outside of the demarcated areas. 36 traps have been installed in fields and stores in the province of Ourense and a further 20 in Pontevedra. The trapping and official inspections focus on higher-risk locations, including the main potato producing areas in the Province of Ourense and transport hubs and major transport routes. The distribution of the traps in Galicia is detailed in Figure 2 below.

29. The ACPHS highlighted the intensive trapping, in a linear pattern, on the northern border of the Province of Ourense. According to the ACPHS, there is a natural mountainous barrier north of Ourense, where no, or very few, potatoes are grown, and the objective of the linear trapping is to catch any moths that do breach that barrier, before they can reach the potato producing areas further south.

30. The audit team visited warehouses in the Province of Ourense and confirmed that the ACPHS had carried out regular inspections, in particular during the grading process before the potatoes are stored. The warehouse operators met by the audit team were very aware of the risks of *T. solanivora*, and in particular, the potential for significant losses in stores. The operators of the warehouses visited had installed a number of additional barriers, including insect proof screens and ultra-violet traps. During the visits, the team noted that the ACPHS inspectors did not systematically inspect potatoes discarded during the grading process, which reduces the probability of identifying tubers with typical moth damage, as these are most likely to be discarded during grading.
31. As detailed in section 5.2.2 above, the use of professional agronomists is compulsory for all producers with > 5 ha of production. In the case of Ourense, many potato producers also focus on the variety Kennebec, which is eligible, subject to certain conditions, for the Protected Geographical Indicator of 'Pataca de Galicia'. The conditions for production include registration and inspections by the Consello Regulador of the scheme, including for the presence of pests and diseases. Potato producers met by the audit team stated that there is no use of farm-saved seed in the main potato producing parts of Ourense and Pontevedra, due to quality standards for commercially produced and traded potatoes, and as a condition of the Protected Geographical Indicator scheme.

32. The ACPHS informed the audit team that *T. solanivora* was found only in a small proportion of the traps installed in what were the most heavily infested areas, prior to the application of control measures. Data provided by the ACPHS also indicates a sustained continued downward trend in trap captures following the application of control measures between 2016 and 2018, and in particular following the adoption of the Royal Decree in 2017. Figure 3 below provides an overview of trap captures between 2016 and 2018 (to the date of the audit):

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13 [http://www.patacadegalicia.es/web/gl](http://www.patacadegalicia.es/web/gl)
33. The surveys for *T. solanivora* carried out in Galicia take account of the requirements for surveillance established in ISPM No. 6 and therefore provide considerable assurance that the status of the pest in Galicia, and in particular its stated absence from the main potato producing area of Ourense, has been reliably determined in line with ISPM No. 8. The evidence provided by the trapping programme and other means of surveillance is that the control measures implemented to date have been successful in reducing the incidence of the moth in the demarcated areas, and inhibiting its further spread, in line with Article 16(1) of Directive 2000/29/EC.

5.2.3.2 Specific surveys in Asturias

34. The ACPHS of Asturias informed the audit team that their specific survey programme had been established in line with the Survey Protocol, and is based on the use of pheromone traps. The ACPHS has delegated the implementation of the trapping programme to SERPA. In total: 385 traps have been installed in fields in the demarcated areas previously used for the production of potatoes. 221 traps have been installed in commercial warehouses and a further 140 in private stores in the demarcated areas, targeting areas where potatoes are still produced. The traps are geo-referenced and the date and details of inspections and changes of pheromone lure are recorded using a mobile application, and the data uploaded into a regional database. The ACPHS informed the audit team that SERPA have recorded 7 489 inspections in 2018 (to 20/08/2018).

35. The ACPHS informed the audit team that, similarly to the situation in Galicia, there had been a marked reduction in moth populations following the implementation of the strengthened control measures established by the Royal Decree. In 2018, to the date of the audit, a total of 83 moths had been found in 18 traps in the whole of the demarcated area; two traps accounted for 54 of the 83 captures. This compares to 2 206 captures in 84 traps in 2017. The ACPHS stated that in 2018, moths had only been caught in 5 of the 33 municipalities in the demarcated area.

36. The surveys for *T. solanivora* carried out in Asturias take account of the requirements for surveillance established in ISPM No. 6 and therefore provide considerable assurance that the status of the pest in Asturias has been determined reliably in line with ISPM No. 8.
The evidence provided by the trapping programme and other means of surveillance is that the control measures implemented to date have been successful in reducing the incidence of the moth in the demarcated areas, and inhibiting its further spread, in line with Article 16(1) of Directive 2000/29/EC.

### Conclusion on situation of *Tecia solanivora*

37. The surveys for *T. solanivora* have reliably established the distribution of the pest in Spain, and in particular its absence from all Autonomous Communities other than Galicia and Asturias, where its distribution is limited. This provides assurance that potatoes produced outside of the demarcated areas are free from the pest, and that those areas have been correctly delimited.

### 5.3 Control Measures for *Tecia solanivora*

#### Legal requirements

- Directive 2000/29/EC
- ISPM 9

#### Findings

38. The report of the previous audit contained a detailed description of the control measures in place for *T. solanivora* at that time. These measures were strengthened by the Royal Decree; the most relevant changes relating to control measures are:

- All suspected findings of *T. solanivora* must be confirmed by the ACPHS laboratory as the moths are difficult to identify and a number of different pests may cause similar damage (galleries) in tubers;

- Following confirmation of the presence of the pest, the ACPHS must delimit a demarcated area, which comprises of an infested area and a buffer zone;
  - The infested area should include at least the whole of the municipality in which the pest was found. It may be extended, if for example, the moth was found close to the border of the municipality;
  - The buffer zone must have a minimum width of 1km from the limit of the infested area. This takes account of the flight range of the moth, which in the Canary Islands has been shown to be 10 m. The Royal Decree provides for flexibility in the delimitation of the buffer zones, to enable ACPHS to take account of their specific conditions. In Asturias, the width of the buffer zone is the whole of the surrounding municipality/ies. In Galicia, the width of the buffer zone is a minimum of 5 Km.

- The measures to be applied in the infested area aimed at eradicating the pest must include the following:
  - Removal and destruction of all potatoes, whether in storage, or planted;
o The application of pesticide treatments in the field, prior to removal of the potatoes, and for disinsection of storage facilities;

o The application of cultural measures, including inspection for, and the removal and destruction of volunteer potatoes;

o It is prohibited to plant any potatoes in the infested area.

- All potato stores must register with the ACPHS and have complete physical protection against the entry of the moth. The audit team visited commercial and private warehouses in the buffer zones of the demarcated areas and noted that they were registered and had maintained records of all potatoes bought and sold, including the identity card number and address of the purchasers. The tubers were stored in small cages, lined with fine mesh screens, sufficient to prevent infestation by the moth. SERPA had installed pheromone traps inside each of the cages, to detect any moths that were present;

- The movement of potatoes within, and from, demarcated areas is permitted subject to certain conditions. Any movement of potatoes within and from the infested area must be made in physically enclosed vehicles. Ware potatoes may only be sold in retail packages for direct consumption. A plant passport, issued by the producer or retailer, must accompany any potatoes moving within and from the demarcated area.

39. The Royal Decree provides for compensation for losses caused by the eradication measures. The level of compensation is determined by each Autonomous Community. The following rates are applied in Galicia and Asturias:

- Seed potato: value based on invoice, up to a maximum of 0.70 €/kg;
- Planted tubers/growing crops: 0.40 €/m²;
- Seed and ware potatoes in commercial warehouses: value based on invoice/original purchase price;
- Ware potatoes in private stores for own-consumption: 0.30 €/kg.

40. The Royal Decree provides that the demarcated zone may be lifted if the presence of the pest is not detected for at least two consecutive years.

41. MAPA informed the audit team that following the adoption of the Royal Decree, SEPRONA was requested to assist in enforcing the prohibition on planting and restrictions on moving potatoes within and from the demarcated areas. An agreement on cooperation was established between MAPA and SEPRONA on 18 May 2017, after which a seminar was held at the SEPRONA Comandancia de Oviedo to provide details of the measures taken and the restrictions and prohibitions applicable in the demarcated areas.
42. Representatives of SEPRONA met by the audit team confirmed that they carried out regular road checks and inspections of former potato production areas in the demarcated area to detect illegal plantations or the presence of any volunteer potatoes. SEPRONA also informed the audit team that they usually accompany ACPHS staff and those from the authorised destruction company, during the removal and destruction of potatoes to ensure the safety of those involved.

43. SEPRONA is also responsible for ensuring that road-side sales are carried out in accordance with national legislation concerning food safety, which prohibits such sales, including of potatoes, except from registered and authorised facilities.

44. The ACPHS in Castilla y León informed the audit team that they had carried out road controls together with SEPRONA, to monitor the movement of potatoes and to check that these complied with the relevant conditions; 314 controls were carried out between July 2017 and July 2018 and a number of non-compliances were identified. 15 administrative fines of up to €3 000 each were applied by the ACPHS.

45. The control measures established by the Royal Decree and National Contingency Plan are comprehensive, and in line with the guidelines for pest eradication programmes established in ISPM No. 9 and the requirements of Article 16(1) of Directive 2000/29/EC.

5.3.1 Control measures for Tecia solanivora in Galicia

46. The ACPHS informed the audit team that the control measures taken in 2018 were in line with those specified by the Royal Decree, and were based on their annual action plan for the eradication and control of *T. solanivora*.

47. The plan includes detailed arrangements for the removal and destruction of potatoes from infested areas. The ACPHS has established an agreement with a private company that is authorised to collect and dispose of fallen livestock and other Category 1 animal by-products, as defined in Regulation (EC) 1069/2009. The audit team visited the facility and noted that the company is equipped with lorries with sealed containers for transporting waste material and automatic disinfection and disinsection application equipment, which ensures that the contents and exterior of the lorries are clean and free from insects prior to leaving the farm or store. The waste is subsequently disposed of through a rendering process, before being mixed with concrete. The ACPHS indicated that the contract ensures that collection is possible within 45 minutes. The removal and destruction of material using such facilities means that the risk of further spread of the moth during the process is effectively inhibited, in line with Article 16(1) of Directive 2000/29/EC.

48. The action plan also provides that, if the application of pesticide treatments by the owner prior to the lifting or movement of potatoes prior to their destruction is not possible, then this will be carried out by TRAGSA.
49. The ACPHS informed the audit team that the following action had been taken since the adoption of the Royal Decree:

- Potato destruction and removal in infested areas:
  - 85,576 kg of seed potatoes in store;
  - 38,229 kg of ware potato in store;
  - 170,929 kg of planted potatoes.

50. The audit team visited the outbreak in the municipality of Muxía, and noted that the measures detailed in the Royal Decree had been carried out, and that an intensive trapping network had been installed in line with the Survey Protocol. The ACPHS had also implemented an intensive information campaign aimed at trade and householders in the area to ensure that they are fully aware of the restrictions and obligations for growing or storing potatoes in the demarcated area.

51. The audit team also noted the presence of a number of volunteer potatoes in two of the four locations visited. In one case, the volunteers were most likely from true seed in a field where potatoes had previously been produced, and in the other, in an area of a private garden, most likely from kitchen waste. The ACPHS stated that the main focus of their efforts has been on the elimination of the outbreak, and implementation of the trapping and information campaign in the newly established demarcated area. They indicated that the control programme for Muxía would be reviewed with stakeholders at the end of 2018, and as part of this, the control programme would be revised to focus on the detecting and eliminating any volunteers in the demarcated area.

52. The measures provided by the Royal Decree have been implemented and enforced in the demarcated areas and, as noted in section 5.2.2 above, these have resulted in a rapid and significant decline in the pest populations in the demarcated areas. Based on this, the control measures should if fully applied, lead to the eradication of the pest, or at least inhibit its further spread in line with Article 16(1) of Directive 2000/29/EC.

5.3.2 Control measures for Tecia solanivora in Asturias

53. The ACPHS informed the audit team that the control measures taken in 2018 were in line with those specified by the Royal Decree, and were based on their annual action plan for the eradication and control of *T. solanivora*.

54. The action plan details measures for the removal and destruction of potatoes, which in Asturias is done by the ACPHS, after the owner of the potatoes has placed them in bags provided by the ACPHS, and sealed, which is a precondition for the payment of compensation. Destruction is by deep-burial in sites approved by the ACPHS.

55. The ACPHS informed the audit team that 2018 in the infested areas, 20,925 kg of potatoes intended for planting (certified and farm-saved seed) and already planted potatoes, were removed and destroyed.
56. The ACPHS in Asturias stated that they have established a specific protocol with SEPRONA, to assist in the enforcement of the control measures in the demarcated areas. They reported that illegal planting of potatoes and movements of potatoes within the demarcated areas were detected during 2018. Administrative fines of up to €3 000 were applied in all cases.

57. The measures provided by the Royal Decree have been implemented and enforced in the demarcated areas and, as noted in section 5.2.2 above, these have resulted in a rapid and significant decline in the pest population in the demarcated areas. Based on this the control measures should, if fully applied, lead to the eradication of the pest, or at least inhibit its spread in line with Article 16(1) of Directive 2000/29/EC.

### Conclusion on control measures for *Tecia solanivora*

58. The objective of the national control measures for *T. solanivora* is the eradication of the moth. The measures have, apart from some minor shortcomings, been fully implemented in the areas where it has been found. The evidence provided by the surveillance programme is that the measures have resulted in a rapid, sustained reduction of the moth and as a result should, if fully applied, result in its eradication.

59. The prohibition on the production of potatoes in infested areas, the restrictions for their movement from and within demarcated areas and their active enforcement, effectively address the risk of further spread of the pest.

### 6 OVERALL CONCLUSIONS

The audit found that a comprehensive survey programme for *T. solanivora* is in place. This has reliably established the distribution of the pest in Spain, and in particular, has confirmed its absence from the main ware and seed potato producing areas of the country.

Comprehensive control measures have been established in the national legislation and contingency plan with the objective of eradicating the pest. The audit found that these measures have been implemented and enforced following any findings of the pest and that this has led to a rapid and significant reduction of its population. The continued application of these measures should lead in time, to the eradication of *T. solanivora* from Spain.

### 7 CLOSING MEETING

A closing meeting was held on 21 September 2018 at the headquarters of the ACPHS of Galicia in Santiago de Compostela, during which the main findings and preliminary conclusions of the audit team were presented. The Single Authority and representatives of the ACPHS visited during the audit, provided clarifications and corrections.

### 8 RECOMMENDATIONS

This report does not include any recommendations.
## ANNEX 1 – LEGAL REFERENCES

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## Annex 2 – International Standards Quoted in the Report

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