The official procedure for mandatory inspection of sprayers in use in Spain

How to deal with regional autonomous authorities

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Workshop on Pesticide application equipment

Novi Sad (Serbia) June 2012

Brief history

Arrangement of NAP in Spain

Spanish law for mandatory inspections

Key questions to be solved

Training/information & success

Conclusions/remarks
Brief history

Arrangement of NAP in Spain
Spanish law for mandatory inspections
Key questions to be solved
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Conclusions/remarks

Voluntary inspections in Spain since 1990

Either, official and private institutions have arranged inspection procedures in Spain since early 90’s

Public administration and universities
Private companies

CMA – Lleida
Generalitat de Catalunya

DEAB
Universitat Politècnica de Catalunya
Voluntary inspections in Spain since 1986

Globalgap  Good Agricultural Practices  Integrated Pest Management

Voluntary inspections in Catalunya (1986-1990)
Brief history

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Conclusions/remarks


establishing a framework for Community action to achieve the sustainable use of pesticides

(Text with EEA relevance)

4. Member States shall describe in their National Action Plans how they ensure that the general principles of integrated pest management as set out in Annex III are implemented by all professional users by 1 January 2014.

### Official schedule to implement the inspection procedure in Spain

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local government design the authority in charge on every region</td>
<td>March 9th 2012</td>
</tr>
<tr>
<td>Design of inspectors’ training units</td>
<td>April 1st 2012</td>
</tr>
<tr>
<td>Design of Laboratory of Reference</td>
<td>May 2012</td>
</tr>
<tr>
<td>Official list of PAE on every region</td>
<td>June 9th 2012</td>
</tr>
<tr>
<td>Official inspection organization on every CCAA</td>
<td>July 1st 2012</td>
</tr>
<tr>
<td>Official authorization of inspection workshops</td>
<td>October 1st 2012</td>
</tr>
</tbody>
</table>

### National Action Plan

- **RD** to establish the basis of VAP for a Sustainable Use of Pesticides
- **RD** for Inspection of sprayers in Use
Brief history

Arrangement of NAP in Spain

**Spanish law for mandatory inspections**

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**RD for Inspection of sprayers in Use**

**BOLETÍN OFICIAL DEL ESTADO**

Núm. 298  Viernes 9 de diciembre de 2011  Pág. 130569

I. **DISPOSICIONES GENERALES**

**MINISTERIO DE MEDIO AMBIENTE, Y MEDIO RURAL Y MARINO**

19296 Real Decreto 1702/2011, de 18 de noviembre, de inspecciones penales de los equipos de aplicación de productos fitosanitarios.

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Organization  Methodology  Dates  Training
Type of sprayers. Classification. Priorities

**Priorities**
- Contractors
- Farmer’s associations
- Cooperatives
- Self propelled sprayers
- Large equipment
- Oldest sprayers

- Boom sprayers
- Orchard sprayers
- Pneumatic sprayers
- Dust applicators
- Aerial application
- Fixed installations
- Post harvest

Standard methodology for inspections

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Visual inspection</th>
<th>Measurement</th>
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</thead>
<tbody>
<tr>
<td>Pump</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Agitation</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Tank</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Regulation system</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Pipes</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Filters</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Nozzles</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
How to arrange an inspection?

The standard/official procedure applied is established at EN 13790 1/2

norma española

TÍTULO

Unidad de Mecanización Agraria
www.uma.deab.upc.edu

03/06/2012
Inspection’s **workshops** approval
Inspectors **training** procedure and contents
**Official arrangement** of inspection procedure

**Key questions**
Who will do the inspections?
Who and how will manage the inspector’s training?

How many sprayers must be inspected in the next 4 years?
How many inspectors/technicians must be trained?
Does Spain need 17 training facilities?

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**Directive 128/2009/EC**

**National Action Plan**

RD 1702/2011/Inspections

Local authorities must arrange the inspection procedure

Results/data must be delivered at Spanish Ministry every year

Inspector’s training
Inspection workshops approval
Data management
Brief history

Arrangement of NAP in Spain

Spanish law for mandatory inspections

**Key questions to be solved**

Training/information & success

Conclusions/remarks

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**How many sprayers must be inspected?**

**BOLETÍN OFICIAL DEL ESTADO**

Núm. 178  
Miércoles 15 de julio de 2009  
Dec. I.  Pág. 59/107

I. DISPOSICIONES GENERALES

MINISTERIO DE MEDIO AMBIENTE, Y MEDIO RURAL Y MARINO

11678  Real Decreto 1013/2003, de 19 de junio, sobre caracterización y registro de la maquinaria agrícola.

La maquinaria agrícola es un medio de producción que se ha hecho imprescindible en la actividad agraria, dependiendo en muchos casos la rentabilidad de las explotaciones del buen empleo de los equipos mecánicos. En una agricultura respetuosa con el medio ambiente es necesario utilizar máquinas que en su diseño y fabricación se hayan tenido en cuenta un series de regulados mínimos, sin olvidar su equipamiento con una serie de dispositivos que minimicen el riesgo de accidente para sus usuarios y el resto de población.
How many sprayers must be inspected?

**Expectations**

≈ 300,000 (SPISE survey)

**Official data**

801,053 (March 2012)

- **Field sprayers**: 76287 (65.7%)
- **Orchard sprayers**: 32392 (27.9%)
- **Other sprayers**: 7374 (6.4%)

Geographical distribution of sprayers and PPP use

About 70% of PPP is applied on 25% of productive area...

While 61% of equipment are only distributed in 3 regions.
How many sprayers must be inspected?

<table>
<thead>
<tr>
<th>Community</th>
<th>Total</th>
<th>Total</th>
<th>%25</th>
<th>Per year</th>
<th>Monthly</th>
<th>Daily</th>
<th>Nº sprayers</th>
<th>Nº inspectors</th>
<th>Nº visits</th>
<th>Nº attendees</th>
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<td>126</td>
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</tr>
</tbody>
</table>

Expected nº of inspection workshops

Who will be able to arrange inspection’s workshops (ITEAF)?

- Universities (AgEng Departments)
- Official training centers
- Research and Development Institutes
- Cooperatives
- Private companies

Manufacturers/Dealers of pesticide application equipment are unable to arrange inspection’s workshops unless there will not be enough offer on the every single local community.
Some aspects to be considered in the near future...

Mobility of inspection workshops must be permitted, especially between border regions.

The inspection procedure will be recognized by all the regions. This aspect implies a necessary harmonization on the requirements or standards to become "inspection workshop" on very CCAA.

Cost of the inspections should be similar among the different CCAA. Last information gives a wide range (40-125 €) that should be reduced.

Inspector’s training: key point for success

What?

- Official certificate mandatory for Directors and Technicians of workshops
- This certificate (renewable every 5 years) will be acquired after the attendance to mandatory training courses delivered by official institutions

Who?

- Universities (AgEng Departments)
- Official training centers
- Research and Development Institutes
- Whatever other official institution if considered
- Local authorities will design their own training facilities
Inspector’s training: key point for success

<table>
<thead>
<tr>
<th>Theme</th>
<th>Type</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Criterios generales sobre la aplicación de fumigadores y su influencia sobre la eficiencia del tratamiento, la seguridad del operario y el medio ambiente</td>
<td>Teoría</td>
<td>3 horas</td>
</tr>
<tr>
<td>Características de los equipos de aplicación de fumigadores: clasificación, componentes, características constructivas, referencia de funcionamiento y mantenimiento</td>
<td>Teoría</td>
<td>3 horas</td>
</tr>
<tr>
<td>Criterios de regulación y determinación del volumen de aplicación. Diagramas de distribución de los diferentes equipos. Operaciones prácticas.</td>
<td>Teoría + Prácticas</td>
<td>3 horas</td>
</tr>
<tr>
<td>Mantenimiento de los equipos y su relación con la calidad de la aplicación de fumigadores</td>
<td>Teoría</td>
<td>2 horas</td>
</tr>
<tr>
<td>La inspección periódica de equipos de aplicación de fumigadores: realidad, criterios y organización</td>
<td>Teoría</td>
<td>3 horas</td>
</tr>
<tr>
<td>Estudios e instrumentación mecánicos para la inspección: características técnicas y requerimientos materiales</td>
<td>Teoría + Prácticas</td>
<td>4 horas</td>
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<tr>
<td>A examen durante el control de los equipos de aplicación. Criterios de aceptación y extractos de control, uso de instrumentos</td>
<td>Teoría</td>
<td>3 horas</td>
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<tr>
<td>Ejercicios prácticos para el control de las diferentes tipologías de equipos: cultivos oleaginosos y cultivos hortícolas</td>
<td>Prácticas</td>
<td>3 horas</td>
</tr>
<tr>
<td>Formulación de la documentación y redacción de informes</td>
<td>Teoría + Prácticas</td>
<td>2 horas</td>
</tr>
<tr>
<td>La inspección final de un bien lleva responsabilidad hacia la unidad de formación. El examen consta de una pila de ensayos a cumplir en cada una de las materias</td>
<td>40 horas</td>
<td></td>
</tr>
</tbody>
</table>

Available at official website of Ministry of Agriculture
http://www.magrama.es/es/agricultura/temas/medios-de-produccion/mquinaria-agricola/estudios-y-publicaciones/
Inspector’s training: key point for success

Does Spain need training facilities on every region (CCAA)?

It seems imperative to guarantee the quality of inspector’s training procedure. So, an harmonized procedure is a need...

Establishment of an universities network with experience on training, with a common course able to attend the demands in all the regions (Proposal)

Inspector’s training: key point for success

Different universities have been working in collaboration with Ministry of Agriculture with the aim to harmonize the technical and formative aspects related with the inspections. But finally, the local authorities will be responsible of the general arrangement

Garantee the quality and eveness of training procedures
Other examples of arrangement of National Action Plan in EU members

**NAP in Germany**

NAP in France

Guide for arrangement of National Action Plan


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**Brief history**

Arrangement of NAP in Spain

Spanish law for mandatory inspections

Key questions to be solved

**Training/information & success**

Conclusions/remarks
Success of inspection procedure needs an adequate informative campaign. In general farmers knows nothing or very little about the inspections, benefits and general procedure.

1. Why did you came to the inspection workshop?
   Because it is mandatory for IPM and I need the sticker for subsidies

2. What is, according to your opinion, the most interesting aspect conducted during the inspection?
   Those related with calibration and adjustment: how to select nozzles, how to adjust pressure. It has been very profitable for me
Training... or at least **Information**

**Agreements during the last plenary meeting with all CCAA**  
(march 2012)

Results of visual inspection must be explained/commented with the farmer during the procedure itself.

Results of different measurements (nozzle flow rate, pressure gauge, horizontal distribution,...) must be explained (time consuming estimated 5-10 min) immediately after the measurement process.

Those actions will increase the success on the comprehension of inspection bulletin and will promote the modification/changes necessaries on the sprayer.

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Brief history
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Training/information & success

**Conclusions/remarks**
Conclusions/Remarks

- The establishment of an official inspection procedure at 17 different regions at a time is an important challenge.
- Accurate information about number and distribution of PAE results key for an adequate organization.
- Inspector’s training must be managed as a “capital point” for guarantee the success of the whole process.
- Recent modification on official procedure of inspections (EN 13790 substituted by ISO 16122) will increase the need of training.
- MS who are in the process to establish mandatory inspection procedure should take advantage of experience of other MS already experienced.