
Round Table

Status Quo of inspection in EU: the results of SPISE enquiry

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Summary

In preparation for the SPISE 7 workshop during the summer time of the year 2017 again a survey in the European Member States and other countries in Europe was carried out. The aim of this survey was to compile information concerning the actual situation of the inspection of pesticide application equipment PAE in use and this time especially the occurrence of problems connected to the implementation of an inspection system. The responsible colleagues of all involved countries got a short questionnaire where they gave new information. Special thanks to the reporters for this additional task.

Introduction

On the occasion of previous SPISE workshops in the years 2004, 2007, 2009, 2012 and 2016 similar surveys were carried out. With this actual survey the colleagues were asked for updating the data regarding the inspection of field and air-assisted sprayers, band sprayers, fixed and semi-mobile sprayers, foggers, PAE used for seed treatment, hand-operated and handheld sprayers, spray equipment mounted on aircrafts or trains, dusters, granular applicators and not handheld wipers. In detail the colleagues were asked for data regarding:

1. Number of PAE in use
2. Kind of data basis
3. Number of PAE inspected in 2016 and 2017
4. Basis for requirements for the inspection
5. Inspection fees
6. Percentage of defect PAE and TOP 5 of detected defects
7. Body/bodies responsible for implementing the inspection
8. Picture of current sticker
9. Number of current authorized workshops/ official teams and inspectors
10. Link to website where the addresses of authorized workshops are listed
11. Certificate system of quality control established
12. Definitions for destination of water used for measurements
13. Definitions for destination of old PAE intended to be scrapped
14. Definitions for mutual recognition of inspection from other Member States
15. Penalty system for use of not inspected PAE
16. Main problems during the introduction process

17. Questions intended to the European Commission concerning the mandatory inspection of PAE in your country
18. Knowledge of SPISE Advices
19. Knowledge of BTSF courses

26 of 37 asked countries returned at least partly filled questionnaires. Summarizing all data, it can be stated that the involved countries reported a mainly estimated existence of around 2.7 Millions of sprayers liable for inspection (Assumption: exemption of handheld and knapsack sprayers). This time 25 countries confirmed the already started inspection activities.

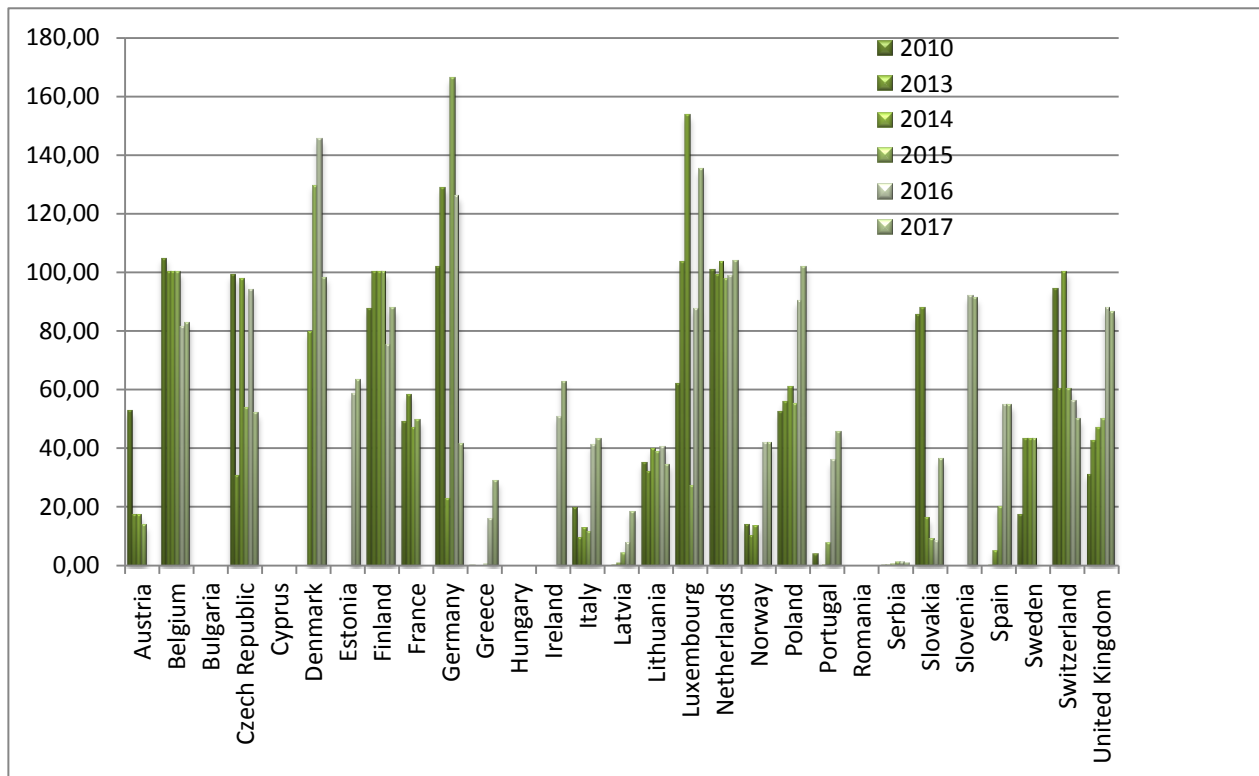
2. Assessment

The tables¹ summarizes the collected data regarding the number of inspections 2015 to 2017 separated for field crop sprayers and air-assisted sprayers for bush and tree crops.

Tab. 1 Inspection of field crop sprayers and air-assisted sprayers for bush and tree crops in the European Countries

Country	Field crop sprayers				Air-assisted sprayers for bush and tree crops			
	Number of sprayers in use	Number of sprayers inspected (2015)	Number of sprayers inspected (2016)	Number of sprayers inspected (2017)	Number of sprayers in use	Number of sprayers inspected (2015)	Number of sprayers inspected (2016)	Number of sprayers inspected (2017)
Austria	35.000	1600	8539	1955	18.000	2000	4403	1008
Belgium	19.053	5.703	5.155	5.239	1.781	566	611	438
Cyprus	1.500	0	0	0	no data available	no data available	no data available	no data available
Czech Republic	7.500	962	1.405	778	1.400	214	403	172
Denmark	12.000	2.591	3.488	2.353	333	64	99	74
Estonia	1.200		234	253	no data available	no data available	no data available	no data available
Finland	20.000	4.000	3.000	3.500	2.000	100	-	25
Germany	115.000	69.784	48.729	15.955	31.000	19.363	11.214	4.239
Greece	76.993	45	4030	7.336	27.736	55	3.857	5.852
Hungary	35.000	0	0	0	18.000	0	0	0
Ireland	20.000	-	2022	2.491	no data available	no data available	no data available	no data available
Italy	170.000	3863	13902	14.570	330.000	7.500	26.987	28.284
Latvia	9.600	130	233	550	400	5	10	23

Lithuania	21.190	1.642	1.713	1.452	212	12	35	19
Luxembourg	1.032	94	300	465	290	266	7	0
Netherlands	12.000	4.070	3.943	4.147	2100	534	720	713
Norway	12.000	no data available	1000	1.000	1.000	no data available	150	150
Poland	225.077	56.390	67.643	76.192	22.602	4.978	7.323	7.884
Portugal	25.000	419	1781	2.260	25.000	895	4.464	4.108
Serbia	132.000	457	500	300	30.000	85	200	100
Slovakia	4.500	63	74	324	550	31	15	76
Slovenia	12.040		5518	5.489	5.678		2.266	2.806
Spain	87.000	15.840	15.840	15.840	173.000	31.360	31.360	31.360
Sweden	14.000	2.000		(in2018) 6749	500	<100	no data available	no data available
Switzerland	20.000	3.000	2.798	2.492	6.000	1.000	994	832
United Kingdom	20.000	16.500	17.500	17.273	2.000	250	377	1.019



Tab. 2 Yearly inspected field crop sprayers as percentage of yearly requested inspections in the European Countries

Table 2 shows in which extent the users of field crop sprayers took part in the offered inspections. Yearly requested inspections in this case means: Number of sprayers in use divided by the inspection interval. From this value the percentage of real performed inspections was calculated. Assigned are the results from the time period from 2010 to 2017. The single columns show big differences of percentages, which range from 0 % up to about 160 %. For some countries only the last columns exist which demonstrate the newer existence of an inspection system. Looking to single countries the variability of the values is remarkable. Mainly this can be explained by changing the inspection intervals e.g. from 2 to 3 years in Germany. Only some few countries reach the 100 % mark regularly.

Tab. 3 Further data concerning the inspection systems in the European countries

Country	After how many years the inspection must be repeated	Average inspection cost (Euro) from...to ..	Number of authorized workshops (official teams)	Percentage of inspected sprayers (field crop) with defect (%)	Is there a certificate system established of quality control of inspection	Are there definitions for a mutual recognition of inspection in other MS	Is there a penalty system for the use of not-inspected PAE
Austria	3	130-200	119		no	yes	yes
Belgium	3	85-179,50	2 + 5	11	yes	Yes	Yes
Cyprus	no data	no data	no data	no data	no data	no data	yes

	available	available	available	available	available	available	
Czech Republic	5	80-280	48	no data available	No certificate, but superv. by UKZUZ	yes	yes
Denmark	5		5	92	yes	yes	yes
Estonia	3	50-90	10	12			
Finland	5	100-150	60	no data available	pending	yes	yes
Germany	3	60-350	900	41	Yes by federal states	yes	yes
Greece	3	50-150	150	83	yes	yes	yes
Hungary	3	125-150	no data available	no data available	no	no	no
Ireland	5	200-500	147	>25	yes	yes	yes
Italy	5	60-300	325	70	Yes in preparation	yes	yes
Latvia	3	50-200	5	6	Yes ISO 17020	yes	yes
Lithuania	5	58-85	12	17	yes	yes	yes
Luxembourg	3	60-250	6	< 5	yes	Soon (End of 2018)	Yes after 2020
Netherlands	3	120-350	162	53	yes	yes	yes
Norway	5	120-350	70	no data available	Yes in preparation	yes	yes
Poland	3		400	0	yes	yes	yes
Portugal	5	60-70	23	39	yes	yes	Yes
Serbia	3	100	2	85	no	no	no
Slovakia	5	160-350	13	90	yes	yes	yes
Slovenia	2	40	8	no data available	no	yes	yes
Spain	3	75-125	175	80	Yes	no	yes
Sweden	3	60-600	117	no data available	yes	yes	yes
Switzerland	4	80-120	62	5-10	yes	yes	yes
United Kingdom	1	80-300	462	50	yes	with Netherl.	yes

Table 3 shows some further aspects around the partly different introduced inspection systems in the European countries.

The still different organised inspection interval will step by step settle down by 3 years as prescribed at last for 2020 by the Sustainable Use Directive (SUD).

The cost for an inspection procedure mostly covers a big range, which is needed for the workshops/teams to work cost-covering at each time. Farmers will accept these costs mainly if they are informed regarding the benefits of such inspection, which is not only healthy, environmentally and safety relevant but often will save money.

Looking to the countries where data are available in the meantime nearly 3300 authorized workshops or teams are available to ensure that farmers must not accept very long access routes.

Furthermore the establishment of a certificate system is confirmed by about 80 % of the answering countries.

The question in which way is dealt with the water arising during the measurement of e.g. the cross distribution was answered by 4 different answers: 15 countries answered, that the water is pumped back to the spray liquid tank of the tested PAE. 6 countries reported that there are no special official requirements so that the water is not collected as long it is not polluted. Two countries report on a collection of the arising water in a separate tank. Three countries have no data available in this connection.

Regarding the scrapping of PAE which e.g. due to age or accidents cannot longer be used all countries reported that there are no special regulations in this case. 8 countries refer to the recommendations sometimes give in the owners' manuals. Two countries mention the national laws of waste in general.

This of course is an essential prerequisite for the mutual recognition of inspections of PAEs in use which is particularly mentioned in Article 8 of the SUD.

Nearly all countries in the meantime installed a penalty system to give special emphasis to the prohibition of use of not inspected PAEs.

For the first time the contact persons were questioned concerning the percentage of stated defects on PAEs. These answers diverge a lot. Here are statements which range from less than 5 % to 92 %. This fact leads to the assumption that the question wasn't right understandable. Of course the question was directed to know how often it occur that defect sprayers are presented to the Workshop stuff.

Also for the first time the contact persons this time were asked concerning the most detected defects. Reliable data were delivered for field crop sprayers and for sprayers for bush and tree crops. About 20 different defects were reported. The tables 4 and 5 show the number of reported defects by the countries. It can be determined, that wear and tear on nozzles is common. Also frequently occurring are defect manometers. Especially to be mentioned is the high amount of leakages on air-assisted sprayers for bush and tree crops. Here also problems with the pump flow rate occur more often. Both could be seen in the relation with the higher working pressure of those sprayers.

Tab. 4: the top ten defects of field crop sprayers in use mentioned by decreasing frequency

<u>Reported defects by the participating countries</u>	<u>Number of mentions</u>
1. Nozzle wear	18
2. Manometer	15
3. Anti Drip device	10
4. Leakages (Hoses and pipes)	9
5. Technical state of boom	6
6. Drive/PTO protection	7
7. Compensative return device	5
8. Pump flow rate	4
9. Tank content indicator	4
10. Pressure drop	3

Tab 5: the top ten defects of air-assisted sprayers used in bush and tree crops mentioned by decreasing frequency




<u>Reported defects by the participating countries</u>	<u>Number of mentions</u>
1. Leakages (Hoses and pipes)	18
2. Nozzle wear	15
3. Manometer	12
4. Pump flow rate	10
5. Filters (dirt/isolation device)	6
6. Spray liquid tank	6
7. Anti Drip device	5
8. Tank content indicator	4
9. Drive/PTO protection	2
10. Pressure valve	2


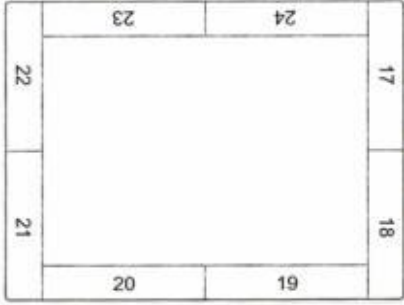



The last questions concern the knowledge of the existence of SPISE Advices and the expected benefit. Here all confirmed their knowledge and see the benefit of these booklets where official standards are not available.





As well really all reporters know the BTSF courses and confirmed the participation in a course by them self or by a person working in the same field.

The minimum prerequisite for starting a contact with the aim of a mutual recognition is to know the addresses of the responsible bodies and the additional an example of the used inspection sticker. Therefore in the following table are assembled for all reporting countries the contact data of the responsible bodies and where available a picture of the current inspection sticker.






Tab. 6: Responsible bodies and examples of stickers of attending countries

<p>Austria</p>	<p>Office of the Provincial Government of Lower Austria: Landhausplatz 1, Haus 3 in 3109 Sankt Pölten (=St. Pölten), Vienna City Administration: Rathaus, 1082 Wien, Office of the Provincial Government of Burgenland: Europaplatz 1, 7000 Eisenstadt, Office of the Provincial Government of Styria: Burgring, 8011 Graz, Office of the Provincial Government of Upper Austria: Landhausplatz 1, 4021 Linz, Office of the Provincial Government of</p>	 <p>Each Federal State has a different sticker (here example for Steiermark)</p>
<p>Belgium</p>	<p>Federal Agency for Food Security is responsible (FAVV-AFSCA) and delegates to two regional bodies. Flemish part ILVO and Walloon part CRAW.</p>	
<p>Czech Republic</p>	<p>Ústřední kontrolní a zkušební ústav zemědělský - Central Institute for Supervising and Testing in Agriculture (ÚKZÚZ) Hroznová 63/2 656 06 Brno</p>	
<p>Cyprus</p>	<p>Department of Agriculture Ministry of Agriculture, Natural Resources and Environment www.moa.gov.cy</p>	

<p>Denmark</p>	<p>Ministry of the Environment and Food of Denmark, Danish Environmental Protection Agency Miljøstyrelsen Haraldsgade 53, 2100 København Ø</p>	
<p>Estonia</p>	<p>Plant Protection and Fertilizer department Agricultural Board of Estonia Teaduse 2 / 75501 Saku / Harju country www.pma.agri.ee</p>	
<p>Finland</p>	<p>Finnish Safety and Chemicals Agency (Tukes), P.O.Box 66, Helsinki, Finland</p>	
<p>France</p>	<p>MINISTRY OF AGRICULTURE / GIP PULVES (MONTPELLIER) GIP PULVES, 361 rue Jean François Breton BP 5095 34196 MONTPELLIER Cedex 5</p>	
<p>Germany</p>	<p>Plant Protection Services of the Federal States www.bvl.bund.de/DE/04_Pflanzenschutzmittel/02_Verbraucher/03_HausKleingarten/01_amt/Auskunftsstellen/Auskunftsstellen_node.html</p>	

<p>Greece</p>	<p>Competent Authority: Directorate of Land Reclamation and Mechanical Equipment of the Ministry of Rural Development and Food. Reference Laboratory: Hellenic Agricultural Organization - DEMETER, Institute of Soil and Water Resources, Department of Agricultural Engineering, 61 Demokratias Str., 13561 Aghii Anargiri Attikis, Greece.</p>	
<p>Hungary</p>	<p>There is no responsible body for the implementations. Regulation mentioned above is under modification by the government.</p>	<p>?</p>
<p>Ireland</p>	<p>Department of Agriculture, Food & the Marine, Pesticide Controls Division Agriculture House, Kildare St. Dublin 2. Do2 WK12</p>	
<p>Italy</p>	<p>Italian Ministry of Agriculture through ENAMA (National Board for Agricultural mechanisation - www.enama.it - Address: via Venafro 5 ROMA) as coordinating authority between Regional Ministry</p>	 <p>Two examples of stickers used in different Italian regions</p>
<p>Latvia</p>	<p>State Plant Protection Service Lielvārdes iela 36/38 Riga, LV-1006, LATVIA www.vaad.gov.lv</p>	

<p>Lithuania</p>	<ol style="list-style-type: none"> 1. The Ministry of Agriculture of the Republic of Lithuania, Gedimino Ave.19, LT-01103 Vilnius, Lithuania 2. State Enterprise Machinery Testing Station, Neris str. 4, LT-54370 Domeikava, Kaunas distr. Lithuania 	
<p>Luxembourg</p>	<p>Administration of technical services of agriculture depending on the Ministry of agriculture</p>	
<p>Netherlands</p>	<p>SKL, Agro Businesspark 24, NL-6708PW Wageningen, the Netherlands</p>	
<p>Norway</p>	<p>Norwegian Food Safety Authority, (Mattilsynet), Postbox 383 2381 Brumunddal, Norway.</p>	
<p>Poland</p>	<p>Państwowa Inspekcja Ochrony Roślin i Nasiennictwa PIORiN (National Inspection of Plant Health and Seed, www.piorin.gov.pl, adress: Street: al. Jana Pawła II 11, 00-828 Warszawa, tel.+48 22 652-92-90, e-mail: gi@piorin.gov.pl) with 16 Voivodeship Plant Health and Seed Inspection Services. It is the inspection body of Ministry of Agriculture.</p>	

<p>Portugal</p>	<p>Ministry of Agriculture</p> <p>The coordination is done by Direção-Geral da Alimentação e Veterinário. Direção de Serviços de Meios de Defesa Sanitária. Divisão de Gestão e Autorização de Produtos Fitofarmacêuticos. Quinta do Marquês, 2770 - 155 Oeiras</p>	
<p>Serbia</p>	<p>University of Novi Sad, Faculty of Agriculture and University of Belgrade, Faculty of Agriculture</p>	
<p>Slovakia</p>	<p>Ministry of Agriculture and Rural Development of the Slovak Republic Coordination is carried out the Central Control and Testing Institute in Agriculture - Agricultural Technical and testing Institute</p> <p>Majerská 326 900 41 Rovinka Slovak Republic www.uksup.sk</p>	
<p>Slovenia</p>	<p>Ministry of Agriculture, Forestry and Food Dunajska cesta 22 1000 Ljubljana, Slovenija</p>	
<p>Spain</p>	<p>Local authorities are responsible. 17 different governments. Data collected by Ministry of Agriculture. Coordination under CEMA</p> <p>http://agricultura.gencat.cat/es/ambits/agricultura/cma_maquinaria_agricola/cma_03_serveis/cma_laboratori_referencia/</p>	

<p>Sweden</p>	<p>Swedish Board of Agriculture, Jönköping http://www.jordbruksverket.se/</p>	
<p>Switzerland</p>	<p>Schweiz. Verband für Landtechnik - SVLT Ausserdorfstrasse 31 5223 Riniken www.agrartechnik.ch</p>	
<p>United Kingdom</p>	<p>AEA, NSTS, 62 Forder Way, PE7 8, Peterborough</p>	

3. Conclusions

Summarising all data, it can be stated that not all involved countries reported the existence of a good working inspection system. There are still some problems to serve, one the one hand regarding the quality of the carried out inspection itself and on the other hand regarding a certain number of PAE which are being used even though they still have not been inspected. The contact persons see the following aspects as main reasons:

- Not enough farmer information
- Not enough high level of workshop activity control (certification system)
- No national/regional register of PAE in use
- No national register of PAE inspected
- Disunity within federalism systems
- Lack of knowledge about the inspection procedure
- Lack of interest among farmers, advisors, and even among authorities

4. Acknowledgement

The SPISE Working Group would like to express its thanks to all of the contact persons in the different European Countries. Also the submitted data are not pleasant in every case the reporters from the countries collected a big amount of information and gave this important input for a future planning. This is commendable.