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## Session 4: “Certification” of the workshop activity (quality assurance) including test facilities (TWG 4)

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### Results of the enquiry carried out in EU MS in order to evaluate their quality assurance system for inspection activities carried out by workshops

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In the Directive 2009/18/EC of the European Parliament and of the Council establishing a framework for Community action to achieve the sustainable use of pesticides in article 8 is stated that “Each MS shall establish certificate system designed to allow the verification of sprayers inspections....”

SPISE WG has spent many years trying to create a system for the mutual recognition of inspection of sprayers. This issue is discussed at workshops and further SPISE

TWGs meetings.

Last year (2013) was submitted by the European Commission the Proposal for a Regulation on official controls.... This proposal was adopted negatively by most of the MS in terms of intention to submit the inspection of sprayers under the ISO certification /ie Article 22 - (e) the design of certification systems to assist the competent authorities in the inspections of pesticide application equipment;/ etc.

In line with WG SPISE discussions was prepared a survey for the MS concerning quality assurance system for the inspection of sprayers in use and sent to whole contacts in european countries. To the time of preparation of this paper was returned completed questionnaires from 16 countries. There are mentioned answers from participated countries below:

### Testing equipment

1. question

Are the requirements for the testing equipment based on ?

**EN13790/ISO16122** SE,SRB,IT,ES,D,NL,B,CZ,DK,UK,SUI, P,PL,N,F, **SK**-the test field and orchard sprayers,

**different, please specify:** **CZ**-national regulations, **UK**-plus additional items - boom suspension, folding, checks on all sprayer systems, induction hoppers, container rinse and tank wash etc., **N**-we measure flow rate as well as distribution. For distribution we use Lurmark patternators,

**additional, please specify:** **IT**, **SE**-National rules SJVFS 2008:1, **NL**-testmanometer must be min 150 mm and class 0.6, **DK**-We have made a Danish guideline that to a large extent follows the standard., **SUI**-Swiss regulation:

[http://www.agrartechnik.ch/index.cfm?parents\\_id=897](http://www.agrartechnik.ch/index.cfm?parents_id=897), **SK**-for testing air applicators and machines for seed treatment is a test device defined by the guideline TSUP MP2/2011,

**comments:** **IT**-minimum requirements for vertical patternator (NAP), **CZ**-majority of the requirements are consistent with EN13790, **D**-some few light deviations,

## 2. question

Is certification of testing equipment needed (JKI/ENTAM/Other)?

Yes, please specify: B,UK,P,PL,N

**B**-Testing equipment is certified under the rules of the ISO 17020, **F**-Only metrological check before being used, **D**-depends on Federal State, **N**-NMBU has tested the inspection devices. In Norway almost similar equipment are used due to the equipped 70 mobile car trailers spread around, **PL**-PIMR (Poland)-for domestic equipment, for other the certifications from producer country are accepted, **P**-The precision of the testing equipment is expected. The certification presented by the manufacturer of the equipment has been accepted, **UK**-NSTS specifies equipment requirements

**No:** SE,SRB,IT,ES,D,NL,CZ,SUI,SK,F

## 3. question

Is the testing equipment checked and calibrated periodically?

**No:** SRB,IT,P,PL

**Yes:** SE,ES,D,NL,B,CZ,DK,UK,SUI,SK,N,F

**by who/what organisation:** **ES**-Private laborator, **B**- a) testing equipment are calibrated by the inspection services b)testing equipment used to calibrated the testing equipment a) are calibrated by the certified ISO manufactory, **CZ**- mostly by Czech metrological institute, and other certified persons, **DK**-Yes. It will be tested by an external company, (Force Technology) that will carry out the control of inspection companies on behalf of the Danish EPA, **F**-Workshop + GIP Pulves,**D**-plant protection service of the Federal States, **NL**- a. SKL, **N**-yes and no: the trailers are equipped with three reference manometers. The inspector can thus by himself detect if a manometer has a silure, **PL**- PIMR, **P**- by each of the inspection Centers, **SK**-accredited calibration laboratories, **SE**-but only by the operators, **SUI** - checked, but not calibrated, by Agroscope, **UK**- By independent organisations,

**frequency:** **ES**-In most cases yearly, **B**-a) monthly b) yearly, **CZ**-manometers and flowmeters - 2 years, checking of electronic patternators every 4 years, volumetric glassware only once, **DK**-Approximately every second year. It has not taken place yet, **F**- Depending of the activity-at least 1 calibration each 200 inspections and/or 2 times per year,**D**-2 years, **NL** -early, **N**-We also measure manometers. However the control of inspection equipment in use is not adequate at the moment (incomplete and to low and random frequency), **PL**-yearly or twice a year, **P**-180 days, **SK**-2 years, **SUI**-about all 5 years, **UK**- Master gauge re-calibrated annually by specialist organisations, other gauges checked against this on regular basis

**how are this inspectors trained:** **B**-a) within the rules of ISO 17020 b) within the rules of ISO standards, **DK**-They are obliged to take a four day course on inspection of sprayers with a test in the end. Same course for both inspectors of sprayers as the control personel. The people at Force technology carries out control of other kinds of workshops/machines and are used to control tasks, **D**-training courses, **NL**-not needed up to now, else internal training, **P**- Inspectors course organized by the DGAV and other organizations, **SK**-Slovak National Accreditation Service (SNAS), **SUI**-members of the working group "sprayer test", **UK**- Inspectors are trained by NSTS personnel and assessed by City & Guilds for Certificate of Competence in Sprayer Examining

**comments:** **IT**-Checking and calibration are recommended but not mandatory. Testing

equipments are partially checked during periodic monitoring of the workshop, **DK**-The course has to be followed up by a one day course at the latest after 5 years. Maybe earlier - if new standards are being required used, **F**-calibration made by certified equipments (tested by officials labs), **N**-Inspected by skilled staff from NMBU

## Testing location

### 1. question

Are the requirements for the testing location based on ?

**EN13790/ISO16122** SE,SRB,IT,ES,D,NL,CZ,DK,UK,SUI,PL,F, **SK**-the test field and orchard sprayers,

**different, please specify:** **B**-ISO 17020, **P**-At the moment only mobile inspections are operating (stationary inspection centers are expected ). The requirements for the, **N**-the system is based on 70 mobile equipped inspection trailers in order to reach out the farmers. The operator shall take part of the inspection.

**additional, please specify:** SE, **DK**-We have made some additional requirements/description in our guideline, **UK**-Additional requirements specified by NSTS, SK, **N**-Thus we also skill the operator and give advice & motivation, **F**-50m or 100 m away from water sources and water evaluation network, **P**-locations are defined by national law for the sprayers inspection (decree law 86/2010, 15 de Junho), **SK**-for testing air applicators and machines for seed treatment is a test device defined by the guideline TSUP MP2 / 2011, **SE**-National rules SJVFS 2008:1, **SUI**-agroscope

### 2. question

Is the testing location checked periodically ?

**No:** SRB,IT,ES,D,PL, **F**-more than 50% of inspections are made outside (farms,...) => impossibility to check every place

**Yes:** NL,B,CZ,DK,UK,SUI,SK

**by who/what organisation:** **P**-is planned, **N**-only mobile, **B**-a) each location is checked by the inspection service b) a sample is checked by BELAC c) a sample is checked by internal auditors d) a sample is checked by internal supervisors, **CZ**-Central Institute for Supervising and Testing in Agriculture, **DK**-By the external company Force Technology that will be responsible for the control of inspectors and the workshops, **NL**-SKL, **P**-The testing of the location, of the stationary inspection centres, is planned with the interval of 3 years, **SK**-authorized personnel NPPC-TSUP Rovinka, **UK**-By NSTS Auditors

**frequency:** **B**-Following the rules of the ISO 17020 and inspection service organisation: a) each location is checked every 3 years b) yearly c) yearly d) yearly, **CZ**-3 years, **DK**-Approximately every second year, **NL**-yearly, **SK**-3 years, **UK**-Every four years or more frequently as required

**comments:** **IT**-Testing location is partially checked during periodic monitoring of the workshop, **PL**-Once in the beginning by National Inspection of Plant Protection, **SE**- Depends of the type of testing location. New rules to better adopt the inspections to SUD are being prepared

## Inspection workshop staff

### 1. question

Are there requirements for the professional skills of the workshop staff ?

**No:** SUI

**Yes, please specify:** B,SE,SRB,ES,D,NL,CZ,DK,UK,SK,P,PL,N,F

**B**-Following the rules of the ISO 17020 ("know how" about sprayers and agriculture, graduation/bachelor in agricultural studies), **IT**-Secondary school licence, **ES**-Technical engineer or similar + specific training course 40 hours, **CZ**-education and practice (at least secondary education with a school-leaving examination in a field focusing on plant health, plant protection, farming, gardening, growing hops, viticulture, forestry, agricultural or forestry machinery, or general agriculture and 3 years experience in operating and adjusting PAE, or at least secondary education with a school-leaving examination and 4 years of experience in operating and adjusting PAE), **DK**-Within each workshop at least one person has to document that they have a relevant education or document to have relevant experience. They have to pass the theoretical and practical test after the 4 day course, **F**-specific teaching and examination, **D**-subject-related training, requisite skills and knowledge and minimum experience, **NL**-experience with and knowlegde of sprayers, **N**-have to pass adapted courses for inspectors. Different course for inspection of crops sprayers and orchard sprayers, **PL**-5-day training course, **P**-The inspection course is required, **SRB**-Graduated engineer of agriculture, (Agricultural Engineering), **SK**-provides guideline TSUP MP2 / 2011, **SE**-Enough to pass the exam to become an inspector (the exam includes some moments of inspection at a sprayer), **UK**-Relevant engineering experience-particularly spraying *equipment*

### 2. question

Are there requirements for a regular training of the workshop staff ?

**No:** CZ,PL

Yes, please specify details of the training: SE,SRB,IT,ES,D,NL,B,DK,UK,SUI,SK,P,N,F

**IT**-Training course (minumum 40 hours) + practical training (3 days or at least 6 sprayers inspected) + final exam (questionnaire + practical/oral), **ES**-40 hours mandatory course, **B**-studies (royal decreet, standards, etc), presentations and handlings (methods, equipments, organisation, quality system), on site training first as observer then as supervised beginner inspector (>1 month), final supervision on site before validation, metrological training (validation of calibration and survey tests), **D**-a four day course with a test in the end is required, **F**-5 years + re-examination, **NL**-basic 3 day training, **N**-theory and practice. Demonstration of an inspection. Wriiten exam (oral if needed), **P**-not determined yet, **SRB**-Training with the professors of Departmen of Agricultural Engineering, **SK**-provides guideline TSUP MP2 / 2011, **SE**-To inspect sprayers you need a valid certificate for the use of plant protection products and you need to be registered as inspector of sprayers, **SUI**-the whole tests are trained and discussed with the staff, **UK**-Requirement to attend NSTS Examiner Days and take part in NSTS Audit

### 3. question

Are there requirements for a periodical refreshing training of the workshop staff?

**No:** SE,SRB,CZ,SK,PL

**Yes:** IT,ES,D,NL,B,DK,UK,SUI,N,F

**what interval:** **P**-n.d. (yet), **IT**-not defined (it depends from region to region), **ES**-5 years, **B**- yearly, **DK**-each 5 years. Earlier if the Danish EPA will change the guideline according to new standards, **F**-12 to 15 months, **D**-2-3 years, **NL**-3 year, **N**-every five years, **SE**-Whenever called for by the Swedish board of agriculture (approx. every second year). Refresh course for the use of pesticide once every fifth year, **SUI**-mandatory assistance at training courses, **UK**-Random audit assessment

**please specify details of the training:** **B**-correction of supervision observation/evaluation, evolution of the decreet, evolution of technics, evolution of the sprayers, modernisation of the equipments, responsabilisation in the quality system, etc., **DK**-They will have practical and theoretical training at a school that has specialised in this issue. The same person educate all inspectors. It happens in close collaboration with the Danish EPA, **F**-audit made by GIP Pulves or COFRAC (accreditation) + specific meetings, **NL**-new developments in testing rules, testing equipment, spraying technique + refreshing testing skills, **N**-refreshing and renewing knowledge. Sharing experiences. Normally an inspector also have a presentation. Tips for improved inspection and how to solve typical problems, **P**-not determined yet, **SE**-Its a 4 day course to get a certificate to use ppp and another 4 day course to become an inspector, **UK**-Manufacturer training as appropriate

**comments:** **CZ**-Periodically, however, held diurnal workshops where are PAE inspectors acquainted with new developments in the field of inspection of PAE (legislation, inspection procedure, requirements for PAE, obligations sites, ..), **P**-not determined yet, **SE**-New rules to better adopt the inspections to SUD are being prepared. When in place they will most likely change many of the answers in this survey.

## Testing protocol

question

Is the testing protocol based on ?

**EN13790** SE,SRB,IT,ES,D,DK,UK,SUI,SK,P,PL

**ISO16122** NL,UK,F, **B**-and ISO 17020,

**different, please specify:** **SK**, **CZ**-internal records of inspection workshops, **N**-we started already inspection in 1991 and thus the protocol is a little different. We also include some practical data and carrying out a check list for an annual control carried out by the operator himself, **SK**-for the control of air applicators and machines for seeds treatment; pattern protocol and process controls in methodology TSUP (MP2 / 2011)

**additional, please specify:** **NL**-Directive ministry of Infrastructure and Environment, **B**-Royal decree of 13 march 2011 (Belgian monitor), **DK**-It has been modulated a bit to fit to the Danish guideline. And it has been integrated in an IT system, **N**-However the requirements and the testing instruction cover the EN13790 and ISO16122 plus some attachments, **UK**-STS additional requirements

**comments:** **IT**-Update of testing protocol based on ISO 16122 not yet completed, **CZ**-rated elements are identical with the EN13790, **NL**-ISO 16122 is base but adapted to specific circumstances and history, like the use of mechanical patternator, **SE**-New rules to better adopt the inspections to SUD are being prepared. When in place they will most likely change many of the answers in this survey.

## Sticker

1. question

Is a sticker used on approved sprayers?

**Yes:** SE,SRB,IT,ES,D,NL,B,CZ,DK,UK,SUI,SK,P,PL,N,F

**No:**

2. question

With unique number?

**Yes:** B,CZ,DK,UK,SK,P,PL,SE,SRB,ES, **NL**-only unique number of the protocol, **F**-2 different stickers: one for identification (no limit of validity) one for approval of sprayer

**No:** IT,D,SUI,N

## Test report

1. question

Is the testing protocol based on?

**EN13790** SE,SRB,IT,ES,D,DK,UK, P,PL, **SK**-the test field and orchard sprayers,

**ISO16122** NL,B,UK,F

**different, own form:** DK,UK,SUI,N,**CZ**-national regulations, rated elements are identical with the EN13790, **SK**-for testing (controls) air applicators and machines for seeds treatment, **PL**-Other equipment than covered by EN 13790,

2. question

Is the number of the sticker mentioned on the test report ?

**Yes:** SE,SRB,IT,ES,NL,B,CZ,DK,UK,SK,P,PL,F

**No:** D, SUI, **N**-no number on sticker ,

**comments:** **IT**-Update of test report based on ISO 16122 not yet completed, **CZ**-numbers of stickers are allotted by Central Institute for Supervising and Testing in Agriculture, **N**-we also point out maximum nozzle output to be used on this sprayer and still remain a proper hydraulic agitation, **P**-The inspection report was done according to the EN 13790. However the information from the software (approved by the DGAV) with the data of the measurements obtained during the inspection can be also presented to the sprayer operator, **SE**-New rules to better adopt the inspections to SUD are being prepared. When in place they will most likely change many of the answers in this surfy, **UK**-Sticker and test report form are uniquely numbered

## Performed test

question

Is there a control of the quality of already inspected sprayers?

**No:** SE,SRB,ES,D,P

**Yes:** IT,NL ,B,CZ,DK,UK,SK,PL,F

**by who:** **N**-not ta the moment, **IT**-Local Administration,**CZ**-Central Institute for Supervising and Testing in Agriculture, **DK**-The Danish EPA has made a contract with a control

company Force Technology, who will be responsible for the quality testing, **F**-GIP Pulves, **NL**-SKL, **N**-not at the moment, **PL**-National Inspection of Plant Protection inspector may recommend re-inspection in the official workshop, **SK**-phytoinspector ÚKSÚP, **UK**-NSTS Audit Procedure

**frequency:** **IT**-1-2 years (it depends from number of inspections made by single workshop), **DK**-They are expected to visit all inspection companies every second year, **F**-15 months, **NL**-min. yearly, **PL**-Depending on assessment in the farm (during PPP use inspection), **SK**-yearly, **UK**-Random as required

**how is planned:** **IT**-It depends from region to region, **DK**-They will be able to see in an IT system when the workshops are doing testing of sprayers and will inform them the day before about their control visit, **NL**-efficient routing, history of workshop, number of inspections per workshop, **N**-to time consuming to recheck every sprayer. Stick controls or claims from operator could be a possible solution, **PL**-Farm inspections are planned basing on the risk assessment (frequency of applications, possibility of mistakes) or interventionally, **SK**-annual plan to ensure phytocontrols, **UK**-Random selection or where there is a perceived problem/requirement

**how are inspectors trained:** **IT**-no training in planned, **CZ**-training within the organization, **DK**-Four day course as mentioned above. They have skills to control companies and machines already. They have received advice/training from NL (Jaco Kole), **NL**-internal training, **N**-better solved by discussing together with experienced inspectors how to carry out the tests, **PL**-General trainings system for inspectors exists (legal news, application technique, etc.). There is a demand of professional education and self-education of inspectors. Inspectors with long time experience are chosen to do the inspections in the farms, **UK**-NSTS Auditors hold the same Cert of Comp as sprayer inspectors

**comments:** **CZ**-inspectors of the Central Institute for Supervising and Testing in Agriculture can check basic requirements for PAE, **N**-new educated inspectors have to follow experienced inspectors up to 5 inspections before they are totally approved to test on their own, **PL**-There is a system of official workshops control (measurement equipment, documentation of inspections, etc.), **SK**-Central Controlling and Testing Institute in Agriculture (ÚKSÚP), **SE**-New rules to better adopt the inspections to SUD are being prepared. When in place they will most likely change many of the answers in this survey.

## Registration

1. question

Is there a national/regional database with official workshops ?

**No:** SE,SRB

**Yes:** IT,ES,D,NL,B,CZ,DK,UK,SUI,SK,P,PL,N,F

**owned/maintained by:** **IT**-DISAFA-University of Torino and ENAMA, **ES**-Ministry of agriculture, **B**-ILVO and CRA-W are the only legal inspection services in Belgium, **CZ**-Central Institute for Supervising and Testing in Agriculture, **DK**-Owned and maintained by the Danish EPA and developed by a company in the Netherlands (Sonima), **F**-GIP Pulves => Publisher on website, **D**-plant protection service of the Federal States, **NL**-SKL, **N**-on the web page of Norwegian Food Safety Authority, **PL**-Open access internet database maintained by National Inspection of Plant Protection, **P**-A national data base is being created

by the DGAV, **SK**-NPPC-TSÚP Rovinka, **SUI**-Schweizerischer Verband für Landtechnik, **UK**-NSTS

2. question

Is there a national/regional database with all certified test operators ?

**No:** SRB,D,CZ

**Yes:** SE,IT,ES,NL,B,DK,UK,SUI,SK,P,PL,N,F

**owned/maintained by:** **IT**-DISAFA-University of Torino and ENAMA, **ES**-Ministry of agriculture, **B**-AFSCA is the head of ILVO and CRA-W for sprayer inspection activities, and has a free access to the ILVO's and CRA-W's databases, **CZ**-only database of the responsible persons exists, **DK**-Owned and maintained by the Danish EPA and developed by a company in the Netherlands (Sonima), **F**-GIP Pulves, **NL**-SKL, **N**-on the web page of Norwegian Food Safety Authority, **PL**-Database maintained by National Inspection of Plant Protection and each of training units (few-several?), **P**-idem, **SK**-NPPC- TSÚP Rovinka, **SUI**-Schweizerischer Verband für Landtechnik, **UK**-NSTS

3. question

Is there a national/regional database with all performed inspection of sprayers?

**No:** SE,SRB,IT,D,SUI

**Yes:** ES,NL,B,CZ,DK,UK,SK,P,PL,N,F

**owned/maintained by:** **CZ**-Central Institute for Supervising and Testing in Agriculture, **F**-GIP Pulves, **N**-Norwegian Food Safety Authority, **P**-the information from the inspection center needs to be sent to the DGAV, **SK**-NPPC- TSÚP Rovinka, **UK**-NSTS

**comments:** **IT**-NAP mentions that a national/regional database with all performed inspection of sprayers shall be made but, actually, only few regions have specific software. There is still not a national database, **ES**-Ministry of agriculture, **B**-ILVO and CRA-W manage their own database of sprayers, **CZ**-electronic database, which is filled by inspection workshops, **DK**-Owned and maintained by the Danish EPA and developed by a company in the Netherlands (Sonima), **F**-These 3 database are grouped in one single and complete tool. Specific access for administrators, inspectors, teaching centers, official bodies but not for public, **NL**-SKL, **N**-however we struggle to get all the inspection sent in to this authority, especially now when the inspections not are subsidized (was until 2005), **PL**-Database maintained by National Inspection of Plant Protection, generally for internal use, **P**-Besides the general data base that is being done by the Ministry of the Agriculture, the inspection centers have already created a personal data base with the results of the inspection, **SE**-New rules to better adopt the inspections to SUD are being prepared. When in place they will most likely change many of the answers in this survey, **UK**-Access to data is available to crop assurance certification bodies for confirmation purposes.

### Conclusions from the survey

Most answered countries have some kind of quality assurance systems but big differences between the submitted answers are still obvious.

Quality assurance is an important matter and need seriously to be harmonized.

Guidelines for certifying workshops are needed.

The information (see above) was obtained from received surveys from the MS. The information does not linguistically modified.