

## The evaluation of sprayers inspection procedure in Italy

Balsari, P.; Marucco, M.; Oggero, G.

DEIAFA Sez. Meccanica – Università di Torino Via L. Da Vinci 44, Grugliasco (TO), Italy

### Summary

In these last years the activity of inspection of sprayers in use in Italy improved with an increased number of authorised workshops and licensed technicians in most of the Italian Regions.

With the approval of the new European Directive on the sustainable use of pesticides, the exigency to be aligned with all the other EU countries concerning the management of the inspections of sprayers in use has become a priority for Italy. The first step is to harmonise the methodology for sprayers inspections tests at national level.

To reach this objective, the National Board for Agricultural Mechanisation (ENAMA), charged by the Ministry of Agriculture, is carrying out a specific program, which started in 2005, through a technical working group led by DEIAFA – University of Turin and involving most of Italian Regional Administrations. After the definition of the test methodology to inspect sprayers in use and of the requirements for workshops, in the last two years the technical working group focussed the attention on the monitoring of the inspections activity and on the compliance of workshops with more severe requirements in order to guarantee a good quality level of inspections.

### Introduction

In the four years of activity of the ENAMA Working Group (2005-2009) 12 documents which contain the guidelines and the indications for applying a common and standardised test methodology to inspect the sprayers in use in Italy were produced. In the guidelines all information are reported in order to activate and to manage the sprayer inspection service, to train the licensed technicians charged of making the inspections and concerning the minimum requirements that the equipment used by testing stations (workshops) must fulfil.

Between 2008 and 2009 three new documents have been prepared to integrate the guidelines reported in the previous documents. More in details, two of these documents (identified as ENAMA Document n° 13 and n° 14 respectively) concern the test methods and monitoring of the inspection activity, including the equipment used by the testing stations to carry out the inspections, the assessment of the activity made by the licensed technicians and a further certification issued by ENAMA to the authorised workshops. The third document (ENAMA Document n° 15) is actually still at a draft stage and is aimed at defining the guidelines for an ad hoc program about the adjustment of sprayers.

Periodical inspection of the activity carried out by the workshops and by the licensed technicians – ENAMA Document n° 13

### How the inspection is made

The need of making periodical checks on the activity of inspection of sprayers in use, on the equipment used to carry out these inspections (test benches, flow meters, manometers, etc.) led to the issue of a specific ENAMA document (n° 13) that provides common and precise guidelines in order to verify the efficiency and the correctness of the service made by the workshops and by the licensed technicians.

ENAMA Document n° 13 therefore states a common procedure for monitoring the activity of workshops and licensed technicians, indicating the frequency of the checks and the disciplinary actions or the fines that are foreseen in case any irregularity is verified.

The periodical checks for workshops and licensed technicians concern:

- The control of the validity of the official license for sprayers inspections and its registration in the national database.
- The correct application of the test methods for sprayers inspections reported in the ENAMA documents.
- The management of data collected during the sprayers inspection using the appropriate official forms.
- The correct storage of the documents on informatics support.
- The efficiency of the equipment used to make the sprayers inspections.

Both workshops and licensed technicians are checked either during the inspections or afterwards on the already inspected sprayers; in this latter case it is checked the exactness of the inspection results reported in the official documentation.

All checks of workshops and of licensed technicians are carried out according to defined checklists that are included in ENAMA Document n°13.

### **Disciplinary actions in case of irregularities verified during the check**

In case any irregularity is verified concerning the activities of workshops or technicians, as it is reported in the document, disciplinary actions are foreseen, consisting in the suspension or in the withdrawal of the authorisation/license.

The decision about the type and terms of the disciplinary action is taken by the Regional Administration where the workshop/technician operates.

The suspension of the authorisation for the workshops is foreseen in the following cases:

- Refusal or discrimination in providing the sprayers inspection service without any valid technical or operative reason.
- Missed execution of the prescriptions given by the responsible of check within the stated terms.
- Application of fees for the sprayer inspections higher than those established by the Regional Administration.

The authorisation withdrawal procedure is foreseen in case that the workshop refuses to be checked by the competent authorities or when one irregularity in the workshop activities is repeated more times.

For what concerns licensed technicians, the suspension of the license can be due to a proved irregularity during the sprayers inspection activity or even to the not justified and repeated absence at the periodical refreshment courses organised by the Regional Administration where the technician operates.

The withdrawal of the license is applied when, over a period stated by the Regional Administration, the technician has been suspended two times.

When the workshops and/or the technicians are subjected to the authorisation/license withdrawal, at the end of the penalty period, they must repeat the procedure to get the authorisation/license for sprayers inspection.

### **ENAMA certificate of workshops compliance (ENAMA Document n°14)**

The ENAMA certificate of workshops compliance was created in order to guarantee the adequate quality and operative level for workshops activities and their equipment through more frequent and more severe checks with respect to the ordinary program. This kind of voluntary certification is therefore an added value for workshops that already have the official authorisation to make sprayers inspection. To realise the ENAMA Document n° 14 the International Standard ISO/IEC 17020 was taken as reference. It contains "the general criteria for the functioning of the organisations that look after inspection activities". In details, the parts of the ISO/IEC 17020 Standard concerning the administrative requirements, the data and inspection results management (privacy policies), the quality of inspection activity, the equipment used, the inspection methods and the recording of inspection results (test reports and inspection certificates) related to workshops were taken into account.

### **Requirements that workshops must fulfil to obtain the certificate of compliance**

Workshops officially authorised to make sprayers inspections that ask for the ENAMA certificate of compliance must provide ENAMA with a set of documents concerning their activity, structures, technical personnel and equipment used to inspect sprayers.

The following documents have to be attached to the request form for the ENAMA certificate of compliance:

- Names and licenses of the technicians who make sprayers inspections in the workshop.
- Declaration in which the workshop agrees to transfer the results of sprayers inspections to the reference board or regional office at regular intervals, by internet and ad hoc software.
- Declaration in which the workshop agrees to allow his licensed technicians to attend the periodical refreshment courses organised by the Regional Administration.
- Declaration in which the workshop confirms that the inspection activity carried out is complying with the impartiality principles and privacy policies.

In order to obtain the ENAMA certificate of compliance it is also necessary that the workshops, besides the requirements stated in the ENAMA Documents n° 1, 3, 4 and 8b, are equipped with:

- a) An adequate protection from weather influence (rain and wind) in the place where sprayers inspection tests are made.
- b) Instruments to register weather conditions which may influence the inspection test results.
- c) A flat area provided with a collecting and disposal system for the liquid sprayed during the inspection tests.
- d) A system to properly send away the gas emissions from the tractors or self-propelled sprayers if tests are conducted indoor.
- e) A set of 12 V power supplies to feed the eventual sprayer instruments or the test benches.

### **Workshop equipment provided with the ENAMA certificate of compliance**

Workshop equipment used for sprayers inspections which have the ENAMA certificate of compliance, besides the minimum technical requirements stated in ENAMA documents n° 3, 4 and 8b, must be provided (when this is possible) with an official documentation issued by a recognised organisation, proving their correct functionality and calibration. Instruments which need calibration or adjustment procedures have to be checked periodically by certification boards previously stated. Eventual not correct functioning, repairs, or changes of instruments must be reported by the workshop to the organisation responsible of the sprayers inspections (ENAMA or delegated organisation).

### **Monitoring of workshops provided with the ENAMA certificate of compliance**

Workshops that have the ENAMA certificate of compliance are subjected to checks that are carried out systematically every two years by an organisation nominated by ENAMA. Control procedures are the same as those adopted for the ordinary monitoring of authorised workshops. More attention however will be focussed on equipment and instruments used for the inspections, examining the documents related to their calibration and functionality.

### **Transfer of data and results of sprayers inspections**

Certified workshops shall transmit directly to ENAMA the results of sprayers inspections every 15 days using an ad hoc software supplied by ENAMA. Any miss or delay in transferring the data shall be justified and reported to ENAMA.

### **Validity and withdrawal or the ENAMA certificate of compliance**

The certificate of compliance is valid for 4 years; within three months before its expiration, the workshop can ask for its renewal provided that it still fulfils all the necessary requirements. When the workshop is not more suited ENAMA can withdraw the certificate of compliance or can reject the request for renewal. The withdrawal of the ENAMA certificate of compliance is automatic if the workshop official authorisation to make sprayers inspections is suspended or withdrawn for any reason.

## **Conclusions**

The monitoring of the sprayers inspection activity carried out by the authorised workshops is one of the main aspects reported in the new EU Directives and therefore it is very important for the EU countries that joined SPISE. One of the objectives to be reached is to define common guidelines to make the checks of workshops in all EU countries where the sprayer inspection service is in force and regulated by law. In particular, these guidelines should report a standard procedure to certify the equipment and instruments used by the workshops, defining their minimum technical requirements and the periodical checks to be made on them.

This would allow to establish a specific ENTAM certification not only for the inspection equipment but for the whole workshops.

A further step could be the realisation of a European database of the authorised workshops so to have updated information available about the evolution of sprayers inspection activity in the different countries.