



The importance and impact of International Standardisation issues that relate to the application of pesticides and their sustained future use

The Commission has in document "*Communication from the Commission to the Council, the European parliament and the Economic and Social Committee. Towards a thematic strategy on the sustainable use of pesticides*" (COM(2002) 349 final), presented a proposal for future work in Europe. We find the document valuable and useful in the ongoing discussion about and development of a strategy for sustainable use of pesticides.

Looking back to understand the future

International and National standards already exist that influence the safe, effective and efficient delivery of pesticides. Earlier Standards successfully document the regular testing of equipment such that these critical farm machines will deliver an acceptable level of performance and continue to meet – and be seen by the public to meet – ensured spray delivery accuracy. In recent years, this core value has been further complemented by the needs to understand and thereby better control a far greater range of pesticide application related issues. A key issue is the minimisation of environmental risks from pesticide use. Critical components of sprayer design, behaviour and performance activity are now recognised; Test methods by which they will be judged and the Performance Limits to be met – are being evolved by recognised experts from all sectors of the pesticide industry and Research Institutes. The introduction of these Standards will have a profound influence on the sustainable use of pesticides.

Standardisation work is often done through Expert Groups discussion. They appraise and formalise individual Draft Standards for circulation and comment from all eligible, voting countries.

It has also become an well-accepted method, for individual types of machines, to express acceptable requirements to represent a way to meet the EU Machinery Directive. After processing and sometimes small changes, these European standards have, also, often been implemented in ISO.

Today's development is to follow the reversed route: From International to European and national implementation.

Existing and future standardisation

Examples of ongoing standardisation work in ISO/TC23/SC 6, can be found in the Working Groups on drift measurements (WG 4), knapsack sprayers (WG 5), cleaning of sprayers (WG 6), drift classifications of nozzles and sprayers (WG 7), in-situ test methods for air-assisted sprayers (WG 8), boom suspension (WG 3), and colour coding of sprayer nozzles (WG 9).

Some drafts have already been prepared:

ISO/CD 12057 "Methods for the field measurement of spray drift" (WG 4)

ISO/CD 19932-1 – Knapsack sprayers – Part 1: Test methods (WG 5)

ISO/WD 10625 Spray nozzles - Colour coding for identification

ISO/DIS 22368-1 Test methods for the evaluation of cleaning systems Part 1 – Internal cleaning of the complete sprayer

ISO/DIS 22368-2 Test methods for the evaluation of cleaning systems Part 2 – External cleaning of sprayers

ISO/DIS 22368-3 Test methods for the evaluation of cleaning systems Part 3 – Internal cleaning of tank

In this context of 'scene setting', looking at the tasks that are now being investigated as possible new work items, may be of even more interest. An ad-hoc group, with members from several countries, has been preparing the base for investigation of new work items. Present at the last meeting in Paris were Jan Langenakens, Belgium, Per Gummer Andersen (convenor), Denmark,



Norbert Alt and Heinz Ganzelmeier, Germany, Paolo Balsari and Michele Galdi, Italy, Jan van de Zande, Netherlands, Eskil Nilsson and Rolf Thesslin, Sweden and Tom Bals, Bill Taylor and Keith Hawken, UK (see Annex 1). The proposed tasks are as follows:

1. Nozzle driftability (laboratory)
2. Droplet characteristics and spray solution definition
3. Deposit tests of field crop sprayer
 - Crop deposit measurement
 - Field deposit measurement
4. Spraying guidelines with the sub-titles. (Training material that is structured to assist Good Spraying Practices)
 - Field crop sprayers
 - good spraying techniques
 - operator training
 - Mist blowers
 - good spraying techniques
 - operator training
5. Definition of parameters for buffer zone determination
6. Pesticide labelling regarding spraying technique. (Sprayer and nozzle type, volume rates, spray quality [drop size], spraying speeds, loading of product)

Among the European standards the following deserves special interest:

- EN 907 Sprayers and liquid fertilizer distributors - Safety. Concerns operator's safety aspects.
- EN12761 Sprayers and liquid fertilizer distributors – Environmental Protection, Part 1-3. Concerns environmental safety aspects.
- PrEN 13790 Inspection of sprayers in use, Part 1-2. Concerns requirements, methods and equipment for inspection of field crop and orchard sprayers.

Standardisation as a tool

In many cases, European countries have different backgrounds, experiences and goals in their use of pesticides. Standardisation aspects may, initially, cause unease. Positive experiences when introducing local control measures by some countries, has made it possible for the measures to be implemented also into other countries. International standardisation is the key that makes this possible.

In addition, developments of new Standards today, have triggered the need for research in specific topics to support the emerging document to ensure that it is relevant, workable and acceptable. The result is not only a Standard document based on "the latest knowledge", but also identifies where the level of understanding is weakest. It is, thus, not unusual for International Standard activities to prompt new research groups and projects.

Community and the Member States should contribute to the safe use of Plant Protection Products (PPPs) in developing countries and in the New Independent States (NIS) by better monitoring and assessing their exports or donation of chemicals, training and stewardship of the use, handling and storage of PPPs and the management of stockpiles of obsolete PPPs, by supporting capacity building and information exchange." Standardisation - preferably in ISO - will be a good (and necessary) tool when working with this task for candidate and developing countries.

Chapter 6 deals with possible elements of a European thematic strategy on the sustainable use of pesticides. Many examples could be given where standardisation can be used as a tool to achieve the goal. The examples given below are chosen because there is ongoing or planned ISO/CEN work that fits into the needs, when developing a strategy for sustainable use of pesticides.



Further research and development into:

- Less hazardous methods of application and handling of PPPs such as
 - precision spraying, improved coating and packaging technology (new soluble packaging and packaging which retains less residual product when empty)
 - better adaptation and use of protective clothing
- Quantification of point source pollution and practical solutions to address related hazards

Improved controls on the use and distribution of pesticides:

- Introduction of a system of regular technical inspection of application equipment (Already in application in several MS. Experience has shown mandatory systems to be more efficient than voluntary ones.)
- Creation of a system of mandatory education, awareness raising, training and certification for all PPP users (farmers, local authorities, workers, distributors, traders and extension services). The training should put emphasis on safe use, covering both human health and environmental aspects.

It would further contribute to the free movement of workers through common and recognised training requirements. Best practice guidelines for the most essential parts of the training should be developed. This could be done against the background of the education programmes provided for in article 9 of Chapter III of Council Regulation (EC) 1257/99.

Although many parts of our job are pointed out as necessary solutions for future sustainable use of pesticides, neither CEN nor ISO are mentioned in the document from the Commission as having already made an invaluable and recognised contribution. The involvement of standardisation work in future plans for a strategy on the sustainable use of pesticides, would be a great improvement and is likely to be essential if its goals are to be effectively met.

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