

Development of harmonised standards on environment for new sprayers

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With the entry in force of the Thematic Strategy on sustainable use of pesticides, both new and in use sprayers have now also to comply with European regulations related to the respect for environment. Since the 15th of December 2011, new sprayers have to comply with the amendment to the Machinery Directive under the process of self certification. New European harmonised standards are therefore needed to support the manufacturers in implementing this new regulation.

A new series of standards (EN ISO 16 119) that defines environmental requirements on new sprayers is under development since 2009. The work started with general requirements (16 119-1), horizontal boom sprayers (ENISO 16 119-2) and vineyards and orchards sprayers (16 119-3) on the basis of the existing EN 12 761 standard developed in the 90's, A fourth part (EN ISO 16 119-4) has also been initiated. Some additional parts for other specific types of sprayers could be added in the future.

These standards are developed by the CEN Technical committee "Agricultural and forestry machinery" (CEN TC 144) , Working Group 3 "Mobile machines" with the participation of the ISO subcommittee on plant protection equipment (ISO TC 23/SC6), which means they will be published both as European and International standards (respectively EN and ISO standards).

This work on new sprayers is done in parallel with the development of the standards for the inspection of sprayers in use (EN ISO 16 122) in order to avoid inconsistency between requirements on new and in use sprayers.

The 3 first parts of ENISO 16 119 have now passed the parallel EN / ISO public enquiry and could possibly be published in the Official Journal of the UE during 2013.

The standardisation process

- **Mandate from the Commission to the CEN**
- **Standardisation work**
 - 3 years time frame
 - The draft developed by the WG has to pass 3 main successive enquiries (vote of the Member States)
 - 1st step = Committee Draft (enquiry within TC 144)
 - 2nd step = Public enquiry
 - 3rd step = Final draft (enquiry within TC 144)
 - A consultant is nominated by the CEN to follow the work of the WG and make sure the standard complies with the directive
- **Publication**
 - becomes official when published in the JO UE
 - implementation by 1 MS needed before publication in the JO UE

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ISO standards

- International scale standards
- TC23: Technical committee « Tractors and machinery for agriculture and forestry »
- SC6: Sub committee within TC23 « Equipment for crop protection)
- 30 countries are member of SC6
- 36 existing standards + 7 under development
- Test methods, classification scales, coding, performance criteria and limits...
- Machines, systems or components
- Focus on environmental issues since 15 years
- EN standards refer very often to ISO standards
- More and more standards are developed in common between CEN and ISO (EN ISO standards)
- Similar development process as for EN standards

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ISO standards

New sprayers

- ▶ Environmental requirements

Sprayers in use

- ▶ Inspection

Distribution

- ▶ Test methods and spray deposits measurements

Test methods

- ▶ test methods for hydraulic sprayers and volume/ha adjustment systems

Cleaning

- ▶ test methods for internal, and external cleaning
- ▶ Drainable volume measurement

Induction hoppers

- ▶ Test methods and performance limits

Boom

- ▶ steadiness

Drift

- ▶ Measurements and classification of sprayers

Nozzles

- ▶ Coding, test methods and droplet size measurements

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Conclusion

- Environmental requirements on sprayers are more and more demanding
- The FWD and the amendment to the MD set up new rules in the EU
- Harmonised standards are essential because they facilitate the implementation of European Directives and contribute to harmonisation within Europe
- But the resources and the time available for developing standards are limited
- Priorities have to be made