

SPISE7



7th European Workshop on
Standardized Procedure for the Inspection of
Sprayers in Europe

Agricultural University of Athens, Greece 26-28/9/2018



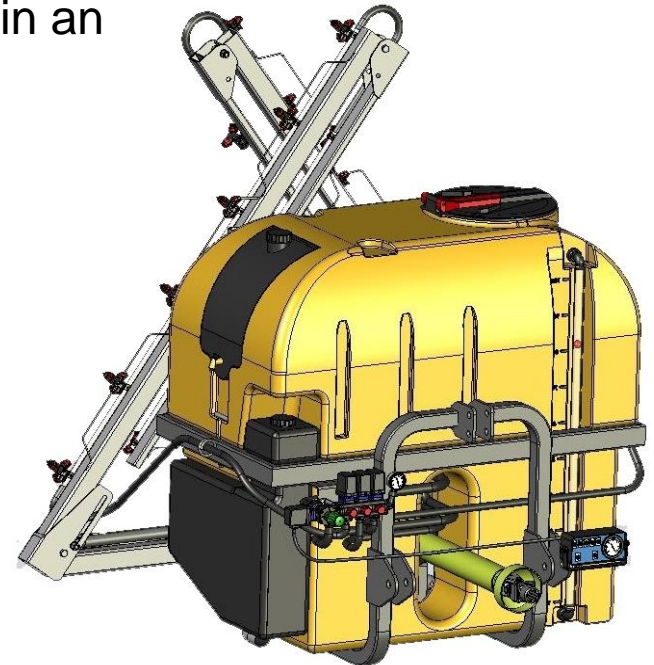
Generalitat de Catalunya
**Departament d'Agricultura,
Ramaderia, Pesca i Alimentació**

Assessment of the sprayer inspection results in Catalonia

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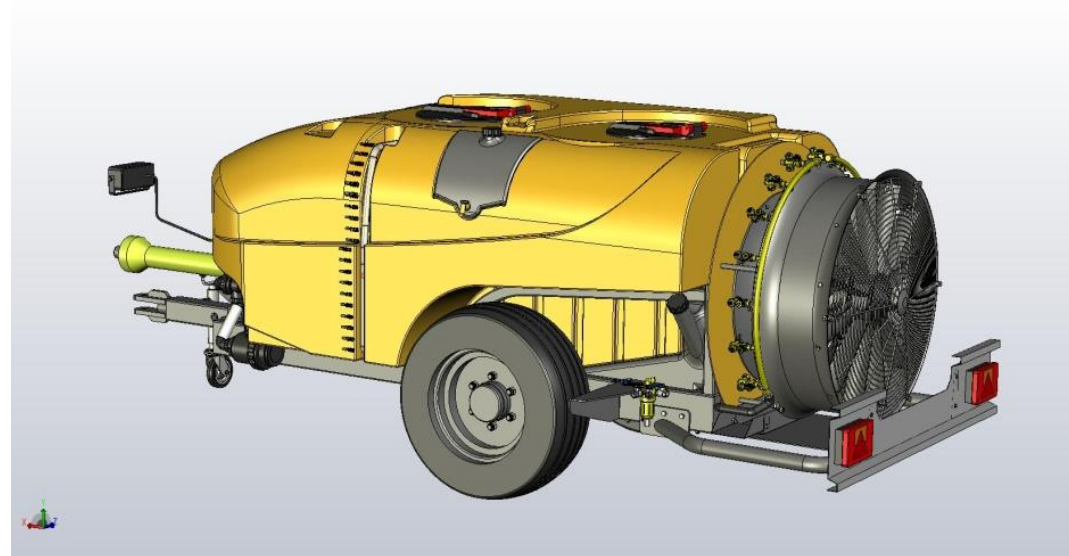
Introduction

- Inspections carried out by inspection workshops
- 18 authorized workshops in Catalonia
- Every workshop has to have a director and the necessary inspectors for the every inspection vehicle
- The quality of the workshop activity is controlled by the administration
- All sprayers to be inspected have to be included in an official list

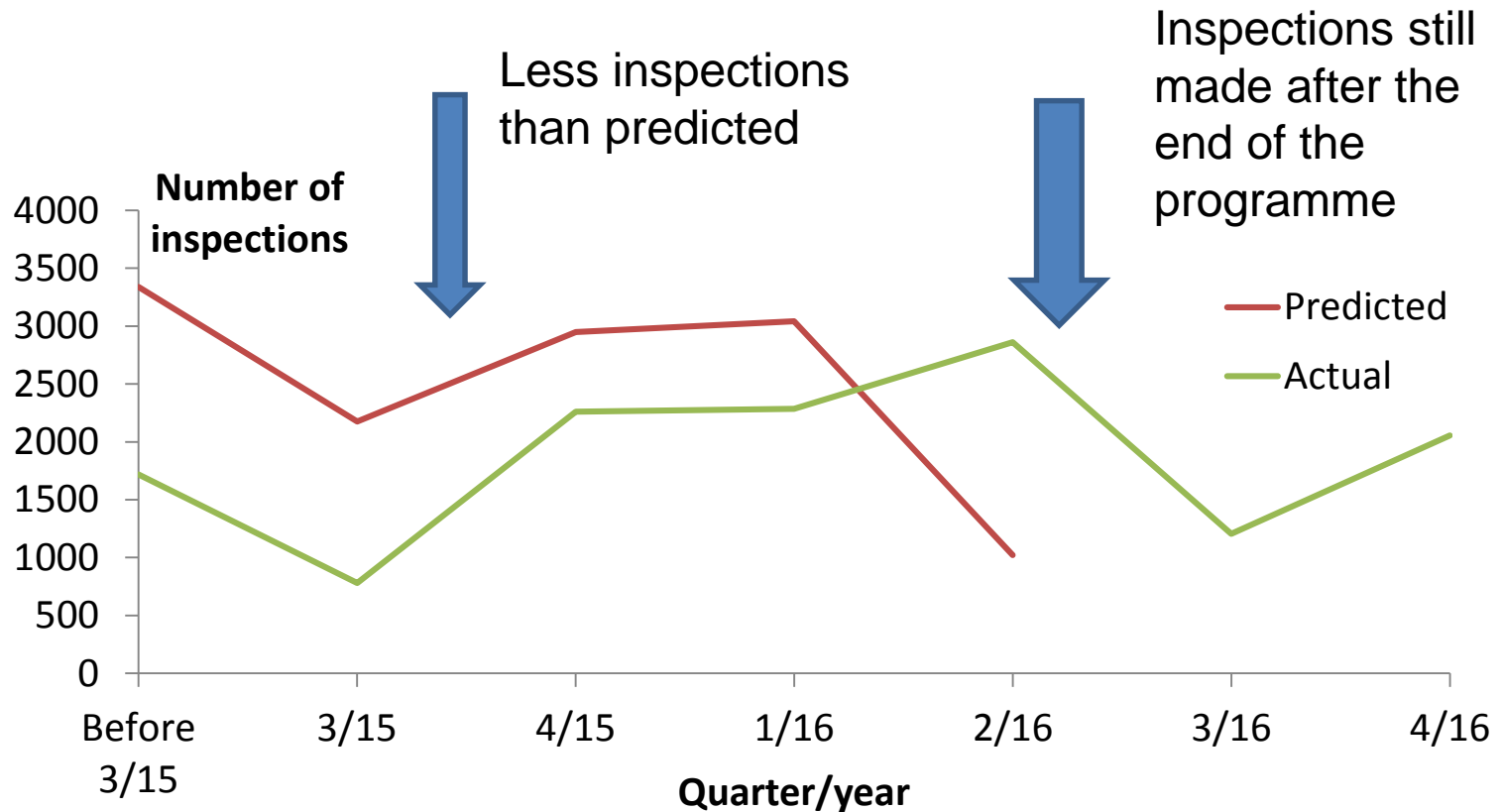


Introduction

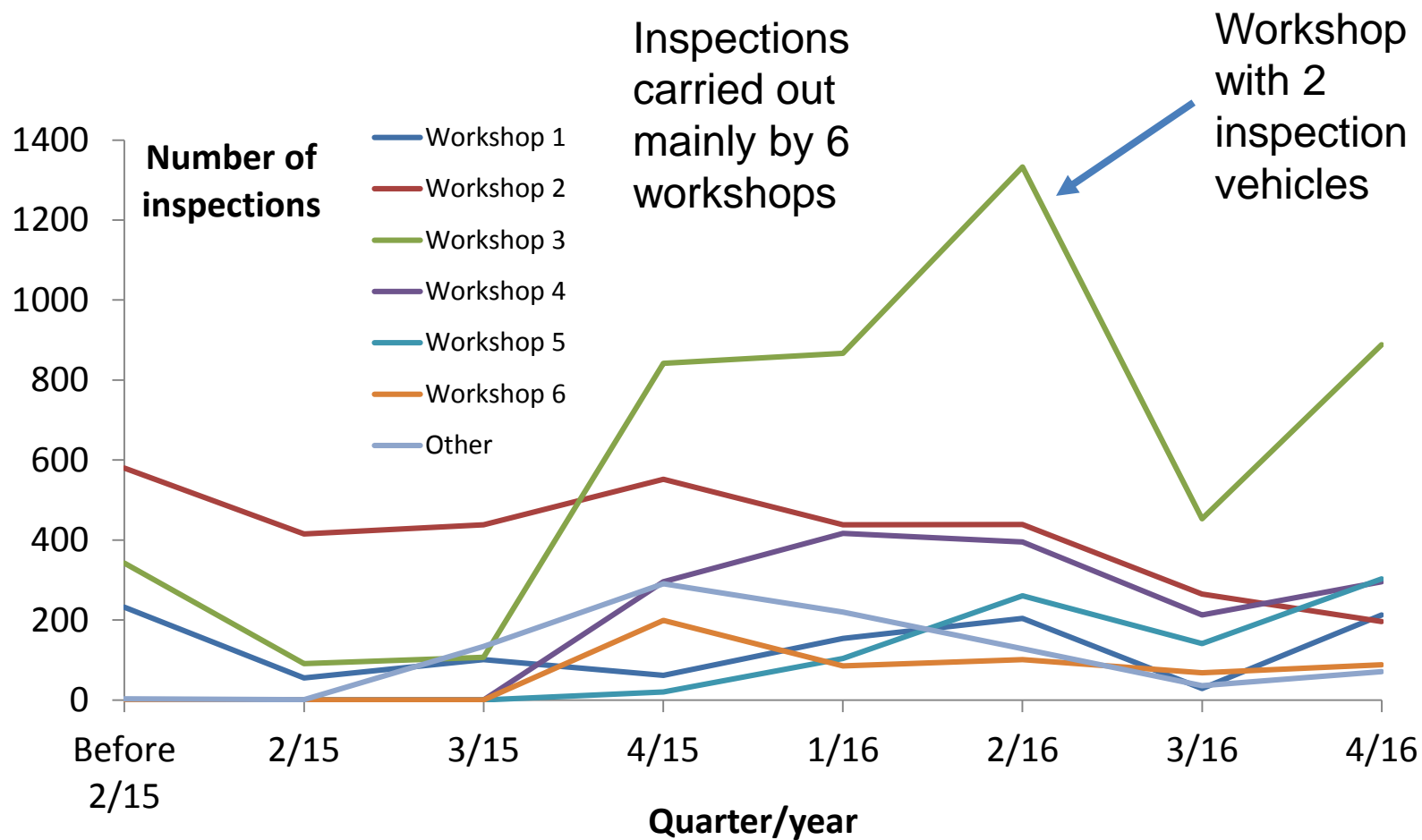
- The Catalan inspection programme was set up to inspect all the sprayers before the deadline established in the 128/2009/CE directive
- Started in the second quarter of 2015
- Communications to the sprayer owners at the beginning of each quarter



Quarterly evolution of the inspections predicted in the programme and the actual inspections



Quarterly evolution of the inspections carried out by the different workshops

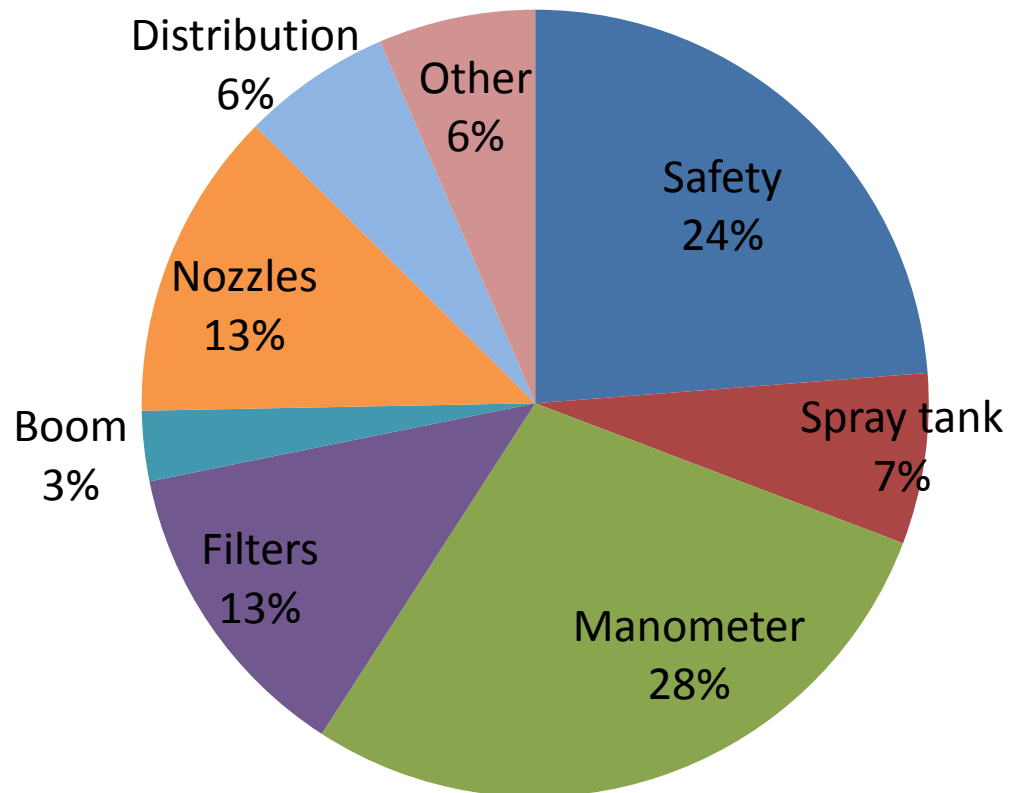


Number of inspected equipment and the corresponding percentage of unfavourable inspections

Type of pesticide application equipment	Number of inspected equipment	Percentage of unfavourable inspections
Boom sprayers	5291	39,6
Air-assisted sprayers	5671	39,4
Pneumatic sprayers	70	20,0
Centrifugal sprayers	1	0
Electrostatic sprayers	2	0
Dusters	677	20,2

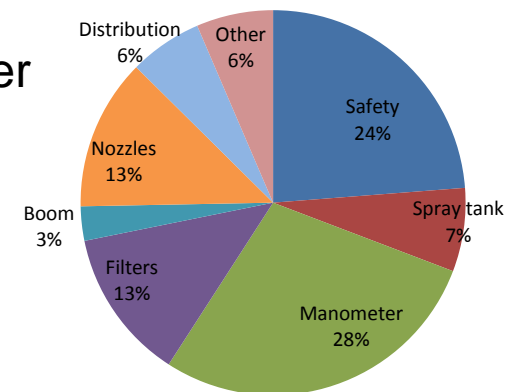


Percentage of defects found during the inspection of all types of pesticide application equipment

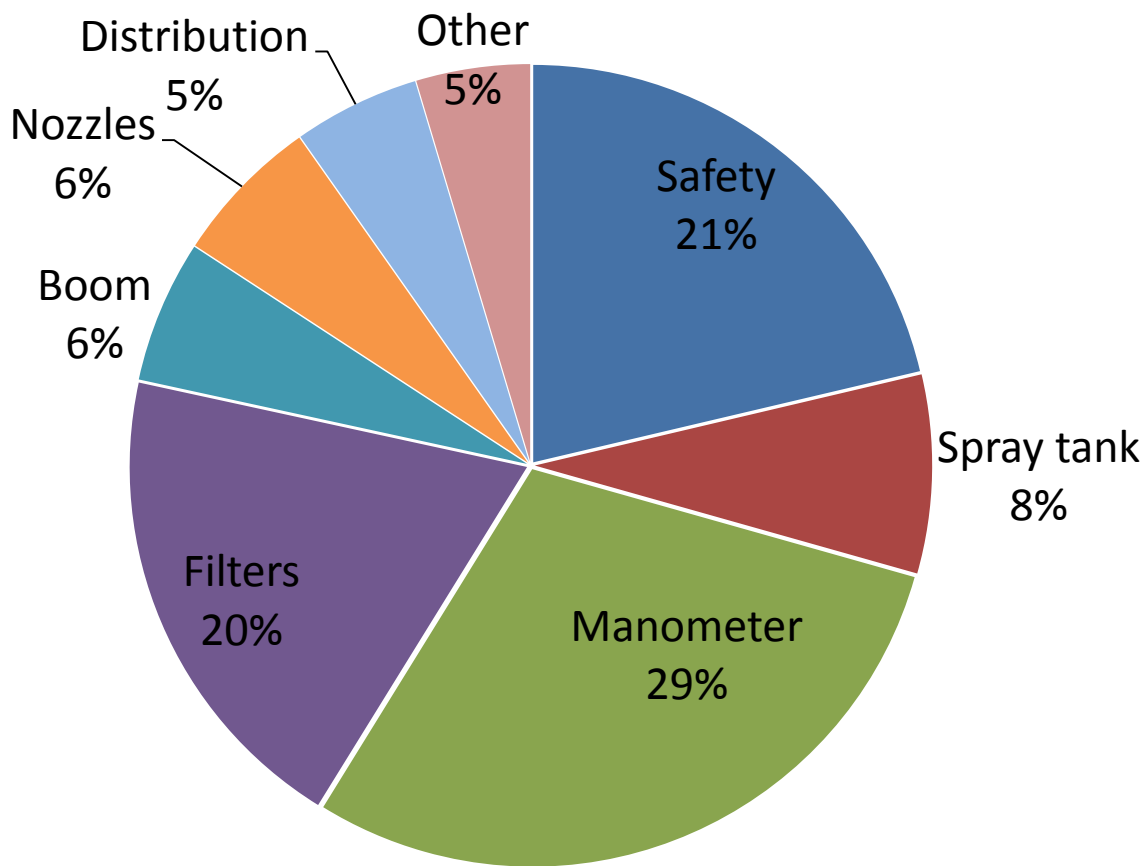


Percentage of defects found during the inspection of all types of pesticide application equipment

- The most frequent malfunction is related with the sprayer manometers. Inadequate scale or inaccuracy
- Protection of the operator. Guards of the sprayer moving parts deteriorated or missing
- Filters. Missing filters in the sprayer manifold
- Nozzles. Deviation from the nominal flow rate. Nozzles can be clogged or worn. Difficulties with some nozzle models
- Excessive pressure loss between the manometer and the nozzles

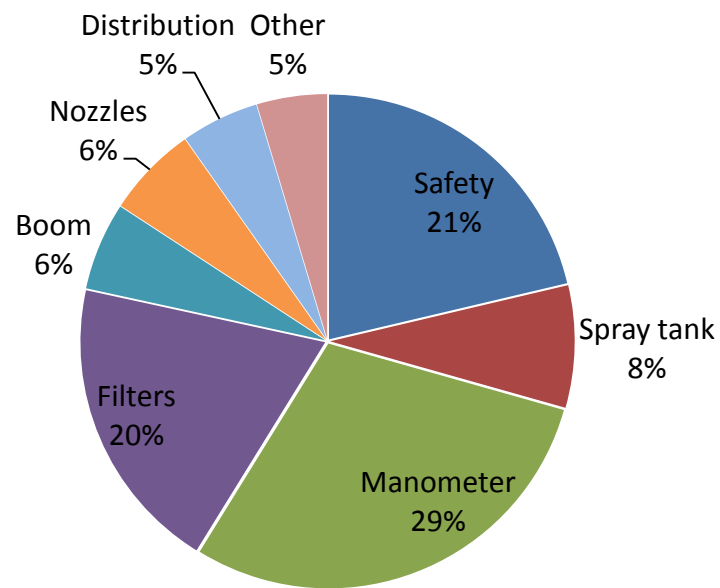


Percentage of defects found in the inspection of horizontal boom sprayers

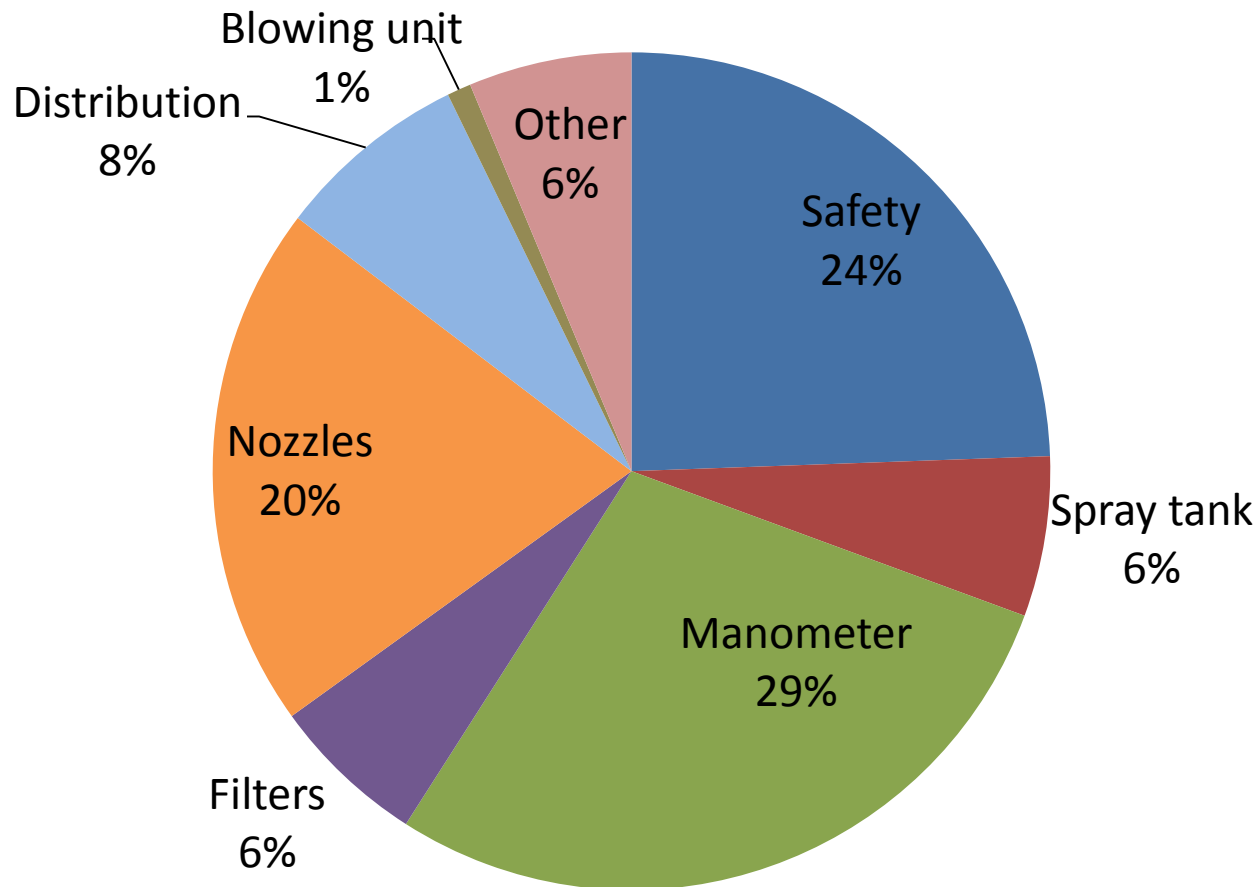


Percentage of defects found in the inspection of horizontal boom sprayers

- Higher percentage of defects in the filters. Small boom sprayers for herbicide band application don't have the required filters
- Sprayer tank. Tank contents indicator is not readable

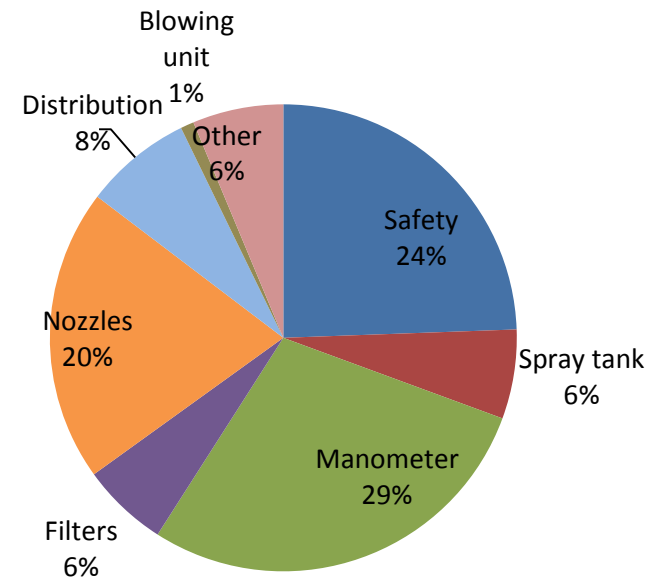


Percentage of defects found in the inspection of sprayers for bush and tree crops



Percentage of defects found in the inspection of sprayers for bush and tree crops

- Higher number of nozzle defects. More nozzle models with adjustable spray jet width
- Defects of the blowing unit are mainly included in the safety section



Final comments

- The percentage of unfavourable inspections is around 40%
- The improvement of the application equipment means an improvement of the efficiency and a decrease of the risk on the human health and the environment
- Field controls by the authorities are necessary to assure that all the sprayers in use are inspected



Thank you for your
attention!



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15