The Importance of Application Equipment to reduce Pesticide Hazards for Humans and the Environment

- FAO Policy and Experience -

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Ecosystem Approach to Crop Production Intensification
The Problem:

– Pesticide use in tropical and subtropical countries is increasing
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- but

– Very few countries have regulations in place to control, how pesticides are actually used in the field
The Field Reality:
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- Unsafe design
- Leaking
- Not durable
- No controlled quality
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• Replacing nozzles
• Cleaning and Storage
• Cleaning filters
• Replacing gaskets
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– Operators of spray equipment unskilled or with little knowledge about principles of pesticide application
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Consequences:

– Health hazards for operators and rural population

– Incorrect, inefficient and patchy applications featuring:
  • Bad practices
  • High number of applications
  • Waste of pesticides, environment
  • High risk of residues

– Pesticides creating hazard for humans and environment
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Areas for intervention: FAO’s work

The Save and Grow concept

- Efficient and save us of inputs
- Take a holistic approach
- Enhancing soil health
- Water and nutrient availability
- Highest possible production
- Environmental footprint < recovery

www.fao.org/save-and-grow/
Areas for intervention: FAO’s work

- A voluntary framework of technical guidelines
- Endorsed by FAO members
- Supported by key pesticide industry associations
- It complements other legally binding instruments such as
  - Rotterdam Convention
  - Stockholm Convention
Areas of Intervention – 
Precision Agriculture:
– An essential tool for precise, safe and efficient pesticide application
Areas for intervention: FAO’s work

Precision agriculture

Including for smallholder farmers
Spray Equipment Quality:

– Guidelines on procedures for the Registration Certification and Testing of New Pesticide Application Equipment
- together with –
– Guidelines on Minimum Requirements for Agricultural Pesticide Application Equipment, Volumes 1-3
Spray Equipment Maintenance:

– Guidelines on organization of schemes for Testing and Certification of Agricultural Pesticide Sprayers in Use

- together with –

– Guidelines on Minimum Requirements for Agricultural Pesticide Application Equipment, Volumes 1-3

Proficiency of Spray Operators:

– Guidelines on organization and operation of Training Schemes and Certification Procedures for Operators of Pesticide Application Equipment

- together with –

– Guidelines on Good Practice for Ground Application of Pesticides
– Guidelines on Good Practice for Aerial Application of Pesticides
Conclusions

• Many Countries have legislation regarding the process of pesticide application, including equipment standards (EN ISO 16119 and EN ISO 19932 series)

• Developing Countries should take similar steps for the benefit of the national consumers as well as to secure export markets

• Safety Standards should be embedded and fully integrated in broader holistic concepts for sustainable production intensification

Thank you for your Attention!