TRAINING ON ANTAM STANDARD CODE
For TESTING OF KNAPSACK MISTERS CUM DUSTERS

PART 2 : Plant Protection Spray Application Techniques

16 - 28 October 2016, Nanjing China

2nd Training of Trainers on ANTAM Codes
Organized by ANTAM and CAMTC
Plant Protection Spray Application Techniques

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Plant Protection Spray Application Techniques

• **Aerial sprayers** (Fixed wings, helicopter)

  + High Productivity (large surface – less time)
  - Cost, maintenance, logistics
  - Bystanders, residents

Reference standards:
EN ISO 16119-5 (new sprayers)
EN ISO 16 122-5 (sprayers in use)

• **Unmanned Aerial Vehicle** (mono or multi rotor)
Plant Protection Spray Application Techniques

• **Boom sprayers**

  + Uniform application
  - Cost, min field size

Reference standards

ISO 5682 – 1/2/3 : flow and boom distribution
EN ISO 16119 1-2 : Specifications for new sprayers
EN ISO 16 122 1-2 : Specification for sprayers in use
Plant Protection Spray Application Techniques

- Bush and tree crop sprayers
  - long distance spraying
  - Drift

Reference standards
EN ISO 16119 3: Specifications for new sprayers
EN ISO 16 122 3: Specification for sprayers in use
Plant Protection Spray Application Techniques

• **Lance & gun sprayers**
  
  + long distance spraying
  - Dosage
Plant Protection Spray Application Techniques

- **Portable sprayers:** Handheld
  
  Maintained pressure/Lance
  
  In general not a professional use
  
  No reference standard on specifications and test methods
Plant Protection Spray Application Techniques

• **Portable sprayers**: Knapsack lever operated

Lever operated
Pressure regulator

Reference standards
ISO 19932-1: safety requirements
ISO 19932-2: test methods
Plant Protection Spray Application Techniques

- **Portable sprayers**: Knapsack motorized sprayers (Mister cu Duster)
  
  Electrical or petrol engine driven
  Air pressure driven
  Mister and/or duster
  Optional boom or rotary CDA nozzle

Reference standard
ISO 10988: test methods and performance limits
Plant Protection Spray Application Techniques

- Fixed and semi-mobile sprayers: green houses

  Electrical or petrol engine driven
  Air pressure driven
  Mister and/or duster

Reference standard
EN ISO 16119-4: new sprayers
EN ISO 16122-4: sprayers in use
Plant Protection Spray Application Techniques

- Granulators, slug pellet applicators and dusters
Plant Protection Spray Application Techniques

- Granulators, slug pellet applicators and dusters
Plant Protection Spray Application Techniques

- Train sprayers

No reference standard
Plant Protection Spray Application Techniques

• Other pesticide application equipments

Soil disinfection

Seed coating