State of the art

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Senior Scientific Officer
PREV Unit
Outline

- State of the art document
- Survey results
State of the art document

- Mid-term vision on future steps and the methodology for collection and assessment of evidence

- Specific objectives:
  1. engage data owners for raw data submission
  2. engage developers for models (and related raw data) submission
  3. build partnerships among stakeholders for submitted data/models assessment and new models development
  4. integrate the assessed raw data/models and new developed models into the OPEX Guidance and annexed calculator
State of the art document: why?

- Contribution from data owner is needed for the update of guidance documents
- Need to increase interactions with data owners
- Willingness to update missing scenarios
State of the art document: what?

- Internal analysis of the future of Non-Dietary Exposure (NDE) to plant protection products
  - already received some information/evidence, mainly from industry and public organisations
  - also informed about ongoing activities for which final results and raw data could be submitted in the near future
  - projects under preparation to be captured with the workshop
<table>
<thead>
<tr>
<th>Category</th>
<th>Scenario/parameter* (in grey)</th>
<th>Need* (frequent scenario, info often needed)</th>
<th>Data availability in EFSA</th>
<th>Work ongoing/finalised</th>
<th>Sensitivity* (associated concern)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor post-harvest treatments</td>
<td>Medium</td>
<td>Yes</td>
<td>Unknown</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Field applications</td>
<td>Low to Medium</td>
<td>No</td>
<td>Unknown</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Paintbrush</td>
<td>Low (chemicals); medium (basic)</td>
<td>No</td>
<td>Yes (for Biocides)</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Non-professional uses</td>
<td>Low</td>
<td>No</td>
<td>Yes (Ref. from Member States)</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Seed treatment</td>
<td>Medium to high</td>
<td>No</td>
<td>Ongoing (SeedTropex Task Force)</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Closed transfer system</td>
<td>Medium</td>
<td>Partially</td>
<td>Ongoing (field studies)</td>
<td>N.a.</td>
<td></td>
</tr>
<tr>
<td>Drift reduction technologies</td>
<td>High (for refinement purposes)</td>
<td>No</td>
<td>Unknown</td>
<td>N.a.</td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td>Low</td>
<td>No</td>
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</tr>
<tr>
<td>Re-entry in vineyards</td>
<td>High</td>
<td>Yes</td>
<td>Finalised (UK HSE)</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>DFR studies (meta-analysis)</td>
<td>High (for refinement purposes)</td>
<td>No</td>
<td>Ongoing (CLE)</td>
<td>N.a.</td>
<td></td>
</tr>
<tr>
<td>Vapour exposure (literature + field or wind tunnel exposure data)</td>
<td>High (for refinement purposes)</td>
<td>No</td>
<td>Ongoing (CLE)</td>
<td>N.a.</td>
<td></td>
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*List developed by EFSA based on received information, not exhaustive; ‘need’ and ‘sensitivity’ assessed based on EFSA experience in the field.
Available data/information and EFSA analysis (2)

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<tr>
<td>Resident</td>
<td>Non-professional uses</td>
<td>Medium</td>
<td>No</td>
<td>Yes</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Seed treatment (dust from treated seed)</td>
<td>Medium</td>
<td>No</td>
<td>Yes</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>BREAM (versions after the one included in the EFSA calculator)</td>
<td>High</td>
<td>Partially</td>
<td>Version 2 finalised</td>
<td>Medium</td>
</tr>
<tr>
<td>Field applications</td>
<td>Medium to high</td>
<td>No</td>
<td>Unknown</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applications in vineyards / orchards</td>
<td>High</td>
<td>Yes</td>
<td>Ongoing</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Research on exposure of residents to pesticides in the NL</td>
<td>High</td>
<td>No</td>
<td>Finalised</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Overview of data and methodologies and data gap identification in exposure assessment for PPPs in residential settings</td>
<td>Low</td>
<td>Partially</td>
<td>Ongoing (UMIL/RIVM/BPN) [3]</td>
<td>Medium</td>
</tr>
<tr>
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<td>High (for refinement purposes)</td>
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<td>N.a.</td>
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<td>Spray drift data (low crops / high crops)</td>
<td>High (for refinement purposes)</td>
<td>No</td>
<td>Finalised (Wageningen University)</td>
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<tr>
<td>Bystander</td>
<td>Seed treatment (dust from treated seed)</td>
<td>Medium</td>
<td>No</td>
<td>Ongoing (SeedTropex Task Force)</td>
<td>Medium</td>
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Main outcomes: data producers

Q.4 Do you generate/have you generated experimental data from field exposure studies?
- No: 68%
- Yes: 32%

Q.5 Do you conduct field exposure studies according to the OECD Guidance Document (97)148 Series on Testing and Assessment No.9 and GLP compliant?
- No: 26%
- Yes: 74%

Q.6 Which category of the population is targeted in these studies?
- Resident & Bystander: 25%
- Worker: 25%
- Operator: 27%
- Other: 3%
- No Answer: 67%

Q.9 Could you give an estimate of the number of field exposure studies you have been involved with?
- < 5: 5%
- 5-10: 8%
- > 10: 19%
Main outcomes: data users

Q.11 Do you use experimental data from field exposure studies?
- No: 29%
- Yes: 71%

Q.12 Do you use data/evidence from the literature (i.e. not raw data)?
- No: 47%
- Yes: 53%
Q.14 Do you think the experimental studies you were involved in (described under questions 5-10) could be submitted to EFSA (if not done yet)?

- Yes: 3%
- No: 8%
- Other: 22%

Q.15 Do you think you could contribute to the EFSA activities in the NDE area?

- Yes: 14%
- No: 34%
- Other: 52%
16A Need for Operator (e.g. frequent scenario, info often needed)

- Packaging
- Drift reduction technologies
- Closed transfer system
- Seed treatment
- Non-professional uses
- Paintbrush
- Field applications
- Indoor post-harvest treatments

17A Sensitivity for Operator (associated concern)

- Packaging
- Drift reduction technologies
- Closed transfer system
- Seed treatment
- Non-professional uses
- Paintbrush
- Field applications
- Indoor post-harvest treatments (potatoes)
Survey results: your feedback to NDE area - Worker

**16B Need for Worker (e.g. frequent scenario, info often needed)**

- **Vapour exposure (literature + field or wind tunnel exposure data)**
- **DFR studies (meta-analysis)**
- **Re-entry in vineyards**
- **Seed treatment (handling treated seed during loading and sowing)**
- **Non-professional uses**

**17B Sensitivity for Worker (associated concern)**

- **Vapour exposure (literature + field or wind tunnel exposure data)**
- **DFR studies (meta-analysis)**
- **Re-entry in vineyards**
- **Seed treatment (handling treated seed during loading and sowing)**
- **Field applications**
- **Non-professional uses**
Survey results: your feedback to NDE area - Resident

16C Need for Resident (e.g. frequent scenario, info often needed)

- Spray drift data (low crops / high crops)
- Vapour exposure (literature + field or...)
- DFR studies (meta-analysis)
- Drift reduction technologies
- Overview of data and methodologies and...
- Research on exposure of residents to...
- Applications in vineyards/orchards
- Field applications
- BREAM (versions after the one included in...)
- Seed treatment (dust from treated seed)
- Non-professional uses

17C Sensitivity for Resident (associated concern)

- Spray drift data (low crops / high crops)
- Vapour exposure (literature + field or...)
- DFR studies (meta-analysis)
- Drift reduction technologies
- Overview of data and methodologies and...
- Research on exposure of residents to...
- Applications in vineyards/orchards
- Field applications
- BREAM (versions after the one included in...)
- Seed treatment (dust from treated seed)
- Non-professional uses
Survey results: your feedback to NDE area - Bystander

16D Need for Bystander (e.g. frequent scenario, info often needed)

- Spray drift data (low crops / high crops)
- Vapour exposure (literature + field or wind tunnel exposure data)
- DFR studies (meta-analysis)
- Drift reduction technologies
- PPP exposure models for 3D orchards considering spray technologies in Southern...
- Applications in vineyards / orchards
- Field applications
- BREAM (versions after the one included in the EFSA calculator)
- Seed treatment (dust from treated seed)

17D Sensitivity for Bystander (associated concern)

- Spray drift data (low crops / high crops)
- Vapour exposure (literature + field or wind tunnel exposure data)
- DFR studies (meta-analysis)
- Drift reduction technologies
- PPP exposure models for 3D orchards considering spray technologies in...
- Applications in vineyards / orchards
- Field applications
- BREAM (versions after the one included in the EFSA calculator)
- Seed treatment (dust from treated seed)