ppr panel proposal: environmental guidance
documents are based on specific protection
goals (spgs)

- spgs require spatial dimension (e.g. in-crop, edge of field, landscape, regional, remote areas)
- the eu environmental and ecological variability is huge, playing a key role in addressing risks
- landscape conditions are essential for assessing effects at population level and recovery
- spatially explicit assessments offers new possibilities for risk managers
  - more realistic and protective while reducing the use of over-conservative assumptions
EXAMPLE OF CURRENT TOOLS

European Food Safety Authority (EFSA) Data & PERSAM software tool

Resource Type: Datasets
Soil Projects Data

Registration is requested: Yes

Publisher: EFSA and JRC
Year: 2015
Scale: 1km
Projects: EFSA Data & Tools
Keywords: EFSA|food safety|ECOREGION|FATE

Regulatory zones:
- North
- Centre
- South
- No annual crops

90th Percentiles

- Concentration in total soil (mg/kg):
  - 1.00891
  - 2.727
  - 3.77508
  - 4.81437
  - 5.85758
  - 6.9671

- Concentration in liquid phase (mg/L):
  - 1.49
  - 2.1751
  - 2.8802
  - 3.5823
  - 4.2804
  - 4.9815
Specific protection goals for non-target arthropods
EU REGULATORY SYSTEM FOR PESTICIDES

EU assessment and approval decision of the active pesticide substance

- Active substance
- Rapporteur MS
- EFSA Peer-Review
- EU approval

MS assessment and pre-marketing authorisation of each formulation
Current tools

- Guidance documents for active substances and PPP
- Tiered risk assessment methods
- Scenarios, models, tools

EU assessment of active subst.

List of Endpoints

Risk envelop approach

MS assessment of PPPs

GAPs
Spatial explicit risk maps addressing EU environmental variability
Tools supporting MS assessment and decision-making
TOOL DEVELOPMENT

INPUT

Intended use patterns
Chemical properties
Environmental and ecotoxicological profiles

INTERPHASE

DATA

OUTPUT

INTERPHASE

ENV. FATE MODELS

ECOTOX. MODELS
Geographical GIS-based mapping vs. other approaches

- **Environmental conditions**
  - GIS based, EU coverage, variable granularity

- **Ecological conditions**
  - GIS-Based
    - Species/habitat distribution, endemic species
    - Main ecological services and biodiversity needs
  - Field habitat and local conditions
    - Crop and non-crop habitats
    - Population in-field and off-field ecology
    - Population dynamics, reproduction potential

- **Agri-cultural and land management**
  - Geographical distribution crops and fields
  - Agro-technology and crop protection strategy
  - National requirements
Spatial scale depend on the ecosystem service

Spatial and temporal scales

Abiotic parameters
e.g. soil, climate or stream properties

Agronomic parameters
e.g. crop, irrigation or landscape structure

Biotic parameters
e.g. competition or predation

Environmental scenario

Region

Agricultural Landscape

Urban Landscape

Industrial Landscape

Natural Landscape

In-Crop

Off-Crop

Field margins

Edge of the field surface water

hedges

Natural patches

Large surface water bodies
The pesticide

Physical-chemical properties

Ecotoxicity
- Mammals & birds
- Aquatic organisms
- Bees
- Non-target arthropods

Environmental Fate
- Soil

List of endpoints for RA

Database of validated values

For higher tiers, includes geographical and landscape applicability

INPUT MODEL: GOOD AGRICULTURAL PRACTICES
- Crop, area, timing, application conditions, ...

ENVIRONMENTAL CONDITIONS

GIS based EU coverage

For higher tiers, includes geographical and landscape applicability

Considering national requirements
Addressing variability for supporting decision making
- National/Regional assessments
- Landscape description
- Risk management options

Tiered assessments
- Calibrated EU wide lower tiers
- Granularity adapted to the needs

Assessments for premarketing authorisation
- Actual use and location is a farmer decision
- Market penetration is unknown
PPR Panel and methodological updates

Need identified
• PPR Panel
• Pesticides Steering Network

Preliminary work by EFSA
• Grants & procurements
• External report

Panel Scientific opinion
• Hearings
• Optional public consultation

Input from Risk Managers

Panel or EFSA guidance
• Hearings
• Networking
• Mandatory public consultation

Guidance ready for Risk Managers decision on enforcement

Tool ready for implementation
PPR Panel and methodological updates

- Need identified
  - PPR Panel
  - Pesticides Steering Network

- Preliminary work by EFSA
  - Grants & procurements
  - External report

- Dialogue with Risk Managers
  - Hearings
  - Optional public consultation

- Panel Scientific opinion
  - Hearings
  - Panel or EFSA guidance
    - mandatory public consultation
    - hearings
    - networking

- Dialogue with Risk Managers
  - Academic community
  - Risk assessors in MS, industry, other experiences
  - Stakeholders views
  - Added value & Integrative approach → IPM

Guidance ready for Risk Managers decision on enforcement

Landscape ERA tool
Panel discussion: What............?

- What are the risk managers needs?
- What is the state of art?
  - Scientific knowledge and methodologies
    - Exposure, terrestrial/aquatic
    - Effects at population, recovery, integration of time events, ...
  - IT technology
  - Environmental data
  - Ecological data and modelling tools for each non-target group
- What are the benefits
- What is the best way for moving ahead?
Panel discussion: How............?

- How to ensure the cooperation of regulatory and academic institutions?
- How to involve applicants and other stakeholders
- How to select risk managers priorities
- How to get an added-value from and to other related activities?
- How to identify and fulfil gaps?
  - Scientific knowledge and methodologies
  - IT technology
  - Data/information
Thank you

Make a difference to Europe’s food safety