WORKING GROUP MEETING ON

PESTICIDE STATISTICS

14 OCTOBER 2009

CONGRESS CENTRE HOTEL IOR
INSTITUTE OF PLANT PROTECTION
NATIONAL RESEARCH INSTITUTE
POZNAN, POLAND

CHAIRLED BY: J. SELENIUS

MINUTES
NOTE ON THE MINUTES:

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OPENING

The chairman welcomed the participants and thanked the Polish Institute of Plant Protection for hosting the meeting and its assistance during the preparation.

The chairman insisted on the importance of reliable data on pesticide use to monitor community and national policies on agriculture and environment and on the challenging job to develop appropriate indicators. The need for a harmonised set of indicators covering different aspects of the risk for human health and the environment should be considered together with the request for aggregated information to report on pesticides in important sets of indicators such as agri-environmental and sustainable development indicators.

1. ADOPTION OF THE AGENDA (PPP/09/001)

In reason of the impossibility for DG ENV to attend the meeting it was proposed to merge the two first items of the agenda and to include DG ENV's needs into Eurostat's presentation.

Considering the strong relation between ARCADIS’ presentation on HAIR results and the Dutch plans to finalise HAIR indicators presented by Alterra it was proposed to move the Dutch presentation to point 3.2.

The agenda was approved with these modifications.

2. THE NEW REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON PESTICIDE STATISTICS

Eurostat presented the recent developments on the new Regulation on Pesticide Statistics and the implications of its implementation for the Commission and the Member States, including the needs for pesticide risk indicators as expressed in the Framework Directive on the sustainable use of pesticides and in the context of agri-environment indicators. Good expectations for an adoption of the statistical Regulation in 2009 were formulated.
3. **PESTICIDE RISK INDICATORS FOR THE EU**

3.1. **Harmonised pesticide risk indicators**

Arcadis Belgium presented the evaluation of the results of the HAIR project on harmonised pesticide risk indicators with a view to further developments required for their implementation by the Commission and the Member States. The presentation included recommendations with a roadmap for further developments of the datasets and IT developments. The possible aggregation of the individual indicators' results was also discussed.

On the basis of Arcadis' study, the Commission reaffirmed its confidence on the risk indicators developed during the HAIR project and its intention to use them as a scientific basis for the evaluation of the thematic strategy on sustainable use of pesticides. Usage and sales data to be collected according to the future statistical Regulation will provide a solid basis for the calculation of these indicators in the future. The compilation of a central database on product properties is under discussion with the EFSA to be realised in 2010-2011.

DK asked about the possibility for HAIR indicators to measure the effect of changes in practices at field level such as mitigation measures. The answer to this question depends very much on the precision and on the level of details of the information collected at field level but as a principle, HAIR indicators are based on the assumption that all mandatory measures, such as buffer zones, are applied everywhere. However it was recognised that the integration of different levels of adoption of mitigation measures, which is part of the regional use data, should be improved in the HAIR indicators.

UK insisted on the need to measure risk instead of hazard and to integrate the effect of all the measures which can reduce the exposure. The need for a clear definition of risk versus hazard was recognised and Arcadis commented that the indicators should not be considered as a tool to really quantify the risk but mainly to indicate trends or express relative differences in time, between regions or between different practices and identify areas where actions should be taken. UK recognised that HAIR provided a basis for the definition of risk indicators but that a selection should be made amongst the whole set.

NL supported the UK opinion and insisted on the importance of the final interpretation of the indicators to the public and the policy makers to clearly distinguish between hazard and risk.

NL/Alterra confirmed that the HAIR indicators should be used to express time trends and spatial differences in the indicators for human and environmental risks.

Good data on pesticide use was recognised as the key stone for the calculation of the indicators.

The need for a better definition of aggregation needs was also recognised.
3.2. The Dutch plan for finalising the HAIR indicators

Alterra presented its draft proposal to the Commission to finalise the HAIR programme. It was stated that an agreement had to be reached between the EC (DG-RTD) and Alterra on the amount of work and the financial issue. The final proposal will take into account: (i) the HAIR contract and the results produced by the HAIR consortium, (ii) the recommendations from Arcadis, and (iii) the discussions at the Working Group Meeting in Poznan. The final proposal will include the finalisation and testing of a selected set of indicators for which data and models are considered sufficiently developed. Some important simplifications in the HAIR databases were also proposed, such as: (i) the deletion of the 25k resolution GIS database, (ii) a robust alternative for the multiple compound databases, and (iii) the abandonment of the field based application patterns only used for the SPEAR index. Several indicators considered as insufficiently developed would be abandoned such as the SPEAR index, part of the algorithms for calculating terrestrial risk indicators resulting from non-spraying applications, and consumer risk indicators (HAPERITIF). Alterra's proposal would cover approximately 30 different endpoints and contain the preparation of individual fact sheets for each compound at appropriate geographical level.

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A two track approach was proposed:

1. The HAIR tool should be consolidated on the basis of Alterra's proposal to DG RTD and under the reserve of acceptance by DG RTD to provide a solid and workable set of indicators.

2. MS will discuss in the SUD WG (or TF) to complement this first set of indicators with additional indicators (either from HAIR or others).

It was also stated that the Commission's work on indicator would not end up with Alterra's work but would require additional investments to be decided on the basis of the outcome of the SUD WG discussions.

See further comments under point 3.5.

3.3. A model for pesticide fate assessment

DG JRC presented a modelling approach of pesticide fate and the assessment of the risk for soil and water in the EU. The aim of the JRC approach is to develop a simple model to assess the actual pesticide distribution in a homogeneous way, across the EU, and on the basis of existing data. Such an approach could be used e.g. for the water framework directive monitoring programme. The approach is based on the observation that degradation is the dominant mechanisms influencing the results of the models to predict environmental concentrations (PEC) and the objective is to develop a simple model that could complement more complex models. The first results collected by JRC indicate a good correlation between PECs and pesticide monitoring data in water at EU level.
To the question of Eurostat concerning the choice of Corine Land Cover (CLC) instead of the Farm Structure Survey data on crop distribution, JRC commented that there was no real need for precise information at this stage of development of the model and that CLC had been validated with FSS data. To the question of which statistics could improve the model, JRC replied that actual use of individual substances at country level was the most important information.

CH asked about the importance of crops for the model. JRC explained that information on crops was mainly used to distribute PECs geographically. According to the first results, a reasonable assessment of PECs can be done with simple information on crops.

NL raised concerns about the conciliation between simplicity and reality and considered that complex intensive agriculture as practiced in the NL requires sophisticated approaches. JRC agreed with this remark and commented that the level of complexity required depends on the scale of assessment. The EU scale does not necessarily require a fine assessment approach.

3.4. Footways

As a structure created to assure the promotion and maintenance of Footprint, Footways explained the different tools developed to assess the risk of transfer of pesticides into groundwater (ground and surface water) at different geographical scales. All the models used by footprint are based on the toxicity exposure ratio (TER) approach. Contrary to the HAIR indicators which are based on the exposure toxicity ratio ETR (the TER is the reciprocal of the ETR). The integration of a complete GIS-related database covering the whole EU and of a complete compound property database makes the Footprint tool a unique common reference for risk evaluation and risk management at farm, country and EU levels.

Some examples of practical Footprint use at national or local levels were presented and future developments of existing tools were suggested.

3.5. Implementation of pesticide risk indicators

Discussions concerning the selection of a final set of pesticide risk indicators were postponed to the end of the meeting after the presentation of national experiences (see under point 5).

4. NATIONAL PESTICIDE RISK INDICATOR

4.1. PestNaB: Presentation of pesticide risk indicator developed at national level in Denmark

PestNaB has been developed by the National Environmental Research Institute of Aarhus University to reflect the potential risk from pesticides for nature. Therefore it does not include the risk of ground water contamination neither human risks. The prediction of environmental contamination integrates the distance between fields and natural elements such has water bodies or hays based on land aerial pictures and field registers. Results are aggregated by comparison between different years or scenarios for each indicator.
It was mentioned that PestNaB was not recognised as the official DK pesticide indicator.

4.2. **Indicators for sustainable plant protection in Belgium**

Belgium developed a holistic approach of pesticide risk covering different DPSIR (Driving Forces, Pressures, State, Impact, Responses) aspects with the objective to create a pesticide dashboard indicating in an understandable way where actions should be taken to minimise risk on objective cost-benefit basis.

Belgium considered the pesticide statistics Regulation of the upmost importance for the evaluation of risk and pleaded for a similar approach for biocides which are considered as a very important source of risk in Belgium where the quantities of biocides sold are comparable to plant protection products.

4.3. **The risk assessment model SYNOPS and its approach in the frame of a general indicator set for sustainable plant protection in Germany**

The German approach developed by the Julius Kuhn Institute Federal Research Centre for Cultivated Plants focuses on the objectives of the pesticide national action plan and is based on two mainstreams. The first one (SYNOPS_TREND) consists in tracking risk trends on national level on the basis of sales data and the second one (SYNOPS_NEPTUN) is a risk assessment for application patterns which is based on a GIS-aided regional risk analysis using field use data obtained by the survey-project NEPTUN.

4.4. **The UK approach to pesticide risk indicators**

UK presented the approach developed by the Pesticide Forum Indicators Group to reflect the impacts of the pesticide national action plan and identify areas of risk. The UK approach is based on the assumption that the greatest degree of risk occurs at the point of use and if pesticides are not applied in a responsible fashion that this may undermine assumptions made in the risk assessment process. UK indicators are a mix of: pesticide usage in agricultural crops; user practice (wildlife poisoning incidents, compliance, continuous training of users) and monitoring (water and foodstuffs).

5. **Plans for the implementation of the pesticide statistics Regulation and for the adoption of pesticide risk indicators**

The main conclusions of the discussion concerning the implementation of the pesticide statistics Regulation and the development of pesticide risk indicators were that:

- Pesticide statistics shall be the key stone for the calculation of indicators. Assuring the quality of these statistics will therefore be the main task of the pesticide statistics working group together with the definition of statistical concepts, the preparation of data transmission formats, and the improvement of data collection methodology. The accuracy of the data at different geographic levels is a key issue for the calculation of indicators by the Member States and the Commission. It was also recognised that monitoring the national strategies would require more data and information than those requested by the statistics Regulation. The coherence between the different approaches used at the different geographical levels must be assured by the pesticide statistics working group.
• Poland insisted on the need to build the future pesticide usage databases on comprehensive national surveys and raised the problem of insufficient funding for such surveys which could lead to compromises on data quality. Poland recommended that the possibility of a financial support to the Member States during the first implementation phase should be considered.

• DE also insisted on the importance to organise good surveys on farmer application practices to follow the national strategies.

• The working group for the pesticide thematic strategy should take on board further discussions on pesticide indicators until the final adoption of the list of indicators by the Commission assisted by the Standing Committee on the Food Chain and Animal Health (SCFCAH). This committee should be informed as soon as possible about this recommendation from the Pesticide Statistics WG.

• Risk indicators should really measure risk instead of hazard and further discussion on how to quantify the risk is still required.

• The ETR (Exposure Toxicity Ratio) indicators developed during the HAIR project constitute a good basis for the final list of pesticide risk indicators. However it was agreed that Commission and the Member States should concentrate on a restricted list of indicators for which data would be available and the models are considered ready. This short list should be the basis for reporting during the first implementation round (2010-2018) of the TS.

• It was suggested to create a task force composed by pesticide experts from a few Member States to prepare the decisions of Thematic Strategy WG (next meeting planned in June 2010). In particular this TF should propose on the basis of a robust and well documented set of HAIR indicators a restricted list of operational indicators. DG ENV will be informed about this suggestion.

• Further discussions on how to interpret the indicators and which message they should deliver to the public and the policy makers should still take place in the Thematic Strategy WG together with the possibility to aggregate the information delivered by the different indicators into one single indicator to be used for e.g. agri-environment and sustainable development monitoring.

• Member States should be allowed to develop additional indicators to reflect on other aspects than the risk only in their national strategies.

• Poland suggested that EU projects for implementing pesticide risk indicators should be considered.

• UK recommended the development of a proportionate system for the indicators considering that existing monitoring programmes should be used to keep costs limited. UK also noted that indicator models that were too-heavy dependent on the nature and type of active substance used (as opposed to the practice of users) may create pressures to promote use of alternative pesticides and to reduce use, neither of which necessarily reduces risk.
• BE (supported by UK) insisted on the need to correctly interpret the message delivered by the indicators and suggested, following the example of OECD, to list a series of policy relevant questions that should be answered by the indicators.

• The group agreed that Alterra should finalise a restricted set of indicators and expressed the wish to show some results within the course of 2010 and – if and where possible - to take on board the input of the Thematic Strategy experts.

• Eurostat explained that official contacts had been established between the Commission and the EFSA for the compilation of a central database on pesticide properties. EFSA is currently launching a procurement “Data entry of pesticide eco-toxicology Tier 1 study endpoints in a XML schema – database” which is expected to start working beginning of 2010 until end of 2010. It is estimated that the work package will cover at least 220 pesticide dossiers and will cover all Commission's needs for the calculation of pesticide risk indicators. In further steps (separate contracts) eco-toxicological higher tier study data, fate data, and physico-chemical data may be compiled. Official contacts still have to be taken to assure a contractual access for the Commission to the results of these contracts.

• Eurostat should inform the Thematic Strategy WG on the progress concerning the pesticide properties database to be built by the EFSA.

• CZ suggested that the Thematic Strategy WG should be informed about the results of the recent OECD survey on pesticide data collection methods and to inform the OECD about the progress in developing pesticide indicators in the EU.

• The interest for the Member States and the Commission to use Footprint tools was also discussed. As the result of an EU funded project, these tools are free for use and Footways is offering assistance and further developments. NL raised the question of the importance of public ownership on the tools to calculate the indicators. Eurostat made a parallel with official statistics which are under the responsibility of public authorities but where arrangements with private companies can be made according to Member States' conditions.

• Finally it was agreed that risk assessment should not be limited to agricultural use of plant protection products but that non agricultural uses and, in the future when the scope of the framework directive is extended, biocides should also be taken into consideration.

6. **ANY OTHER BUSINESS**

No other issues were raised.