Aim of special session Main problems related to pesticide use and abuse in the world will be addressed, with a particular effort for identifying possible solutions.

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## 1659a DEVELOPMENT OF NEW TOOLS FOR BRINGING PESTICIDE RISK ASSESSMENT IN THE SMALL SIZE ENTERPRISES AND IN THE DEVELOPING WORLD

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The role of pesticides in the modern society has been strengthened by the need for higher yield in food production and the ongoing battle against vector borne diseases in public health. Nevertheless, the toxicity of these chemicals is not fully specific to target organisms, thus posing a potential health threat to humans. In this frame, risk assessment and management are fundamental. In the occupational settings, variability of meteorological conditions, use of different concentrations of highboy variable mixtures, and significant variations in the application times and modalities make this task very complicated, underlining the need for novel approaches for conducting 'in field' preventive activities. New developments in pesticide risk assessment should start from the fact that the amount of information collected during the process of authorisation of new active ingredients is unique, similar to that available for pharmaceutical products, and that this significant amount of information is scarcely used in the post market risk assessment activities. In this light, a possible way forward for pesticide risk assessment is represented by a better exploitation of these data, in approaches with variable levels of complexity; the simplest, is the evaluation of the adherence of the use scenario under evaluation with the one checked and approved in the authorisation process and synthesised in the good agricultural practices. Other parameters such as

Acceptable Operator Exposure Level (AOEL), acute reference dose (ArD) as well data regarding skin absorption, metabolism and relevant metabolites in animals can find use in the realisation of models adequate to estimate the dose and the risk without doing analysis, as well as to calculate provisional biological exposure indices, defining the dose supposed to be excreted in a subject exposed at the AOEL level. This can be done conducing real-life field studies to usable refine and validate the risk hypotheses generated through modelling.

## 1659b SAFE USE OF PESTICIDES AMONG TRADITIONAL FARMERS IN JAVA INDONESIA

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Introduction The use of pesticides in the Indonesian vegetable farming is common. The conventional and traditional methods of pesticides used are mostly dangerous nor safe. This study investigated the impact of health promotion intervention on safe use of pesticides among farmers in Sumowono Village, Semarang District, Indonesia.

Methods The researchers conducted a multi-year's approach to conduct a training on safe use of pesticides as a health promotion intervention. In 2013, the researcher approached the community health centre staff to gather their understanding on unsafe pesticides used among farmers. The researchers made a collaboration with one nurse and one midwife to be part of the field coordinator team. The actual training session was conducted in 2015.

**Results** The farmer's community agreed with the idea of participating in the Focus Group Discussion and training on safe use of pesticides. Selected farmers of 136 persons participated in the training. It was tailored to find a solution on un-safe use of pesticides according to participants daily practices.

Knowledge and attitude of pesticides use were improved after joining the training session. The adoption of expected behaviour on safe use of pesticides was evaluated one year after the training. A significant behaviour change was seen on drinking water after working with pesticides. In addition, the practice of taking a painkiller medicine was no longer available since the training participants gained knowledge on dehydration, pesticides intoxication, and the benefit of water intake to expedite the excretion of pesticides from the body. **Conclusion** Health promotion interventions involving the local health workers were effective. A three years approach in health promotion delivery was useful in strengthening to the adoption of the expected healthy behaviours.

## 1659c CANCER AND OTHER CHRONIC DEGENERATIVE DISEASES FOLLOWING LONG TERM EXPOSURE TO PESTICIDES

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