

Residential exposure to pesticides and health effects; What we know and what we should know

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The application of pesticides in the vicinity of homes has raised much public concern and discussion regarding the possible health effects of people living in close vicinity to agricultural land (residents). Several studies have indicated health effects among both children and adults that live in close proximity to agricultural land. However, these studies often are hampered by the lack of reliable exposure data.

Recently, several large efforts have been initiated to better understand the exposures of residents to pesticides that live close to agricultural fields. These studies have applied a variety of methods varying from biological monitoring, to house dust measurements, exposure algorithms, and geospatial models. But how well do these methods work and what do they tell us about the possible extent of the problem?

In this proposed symposium we will bring together and present the results of recently conducted exposure and health studies to explore what we know and what we should know.

The proposed topic is of great importance as it is generally assumed that if exposure and health effects of workers and bystanders are controlled than residents should be safe as well. But is this really true? And are the models used to assess residential exposures in the regulatory framework adequate? And if so how is it possible that several epidemiological studies have observed health effects?

The proposed format of the symposium is four short talks on recent observations on quantifying the residential exposures of residents using a variety of methods and study designs and their associated health effects. The symposium will be concluded with a panel discussion with the aim to shape a future research agenda on this topic.

Residential exposure to pesticides is an important public health concern given the large amounts of pesticides used on crops worldwide. But what do we know about how they migrate to the air and water resulting in human exposure. To address this problem several studies have recently been initiated to study the extent of the problem. In this symposium we will present these new results and will bring the evidence from different parts of the world together to explore what the current knowledge is and what the next steps should be.