

Occupational exposure to pesticides in horticultural and amenity gardening.



Objective:

To assess amenity horticultural workers exposure to glyphosate and fluroxypyr using biological monitoring.

The Research Sector – Amenity Horticultural



Research Methodology

➤ Similar Exposure Groups:

- Manual knapsack, Controlled droplet applicator, pressurised lance & boom sprayer

➤ Chemical:

- Glyphosate & Fluroxypyr

➤ Biological Monitoring:

- Urine spot sampling



Results & Conclusions

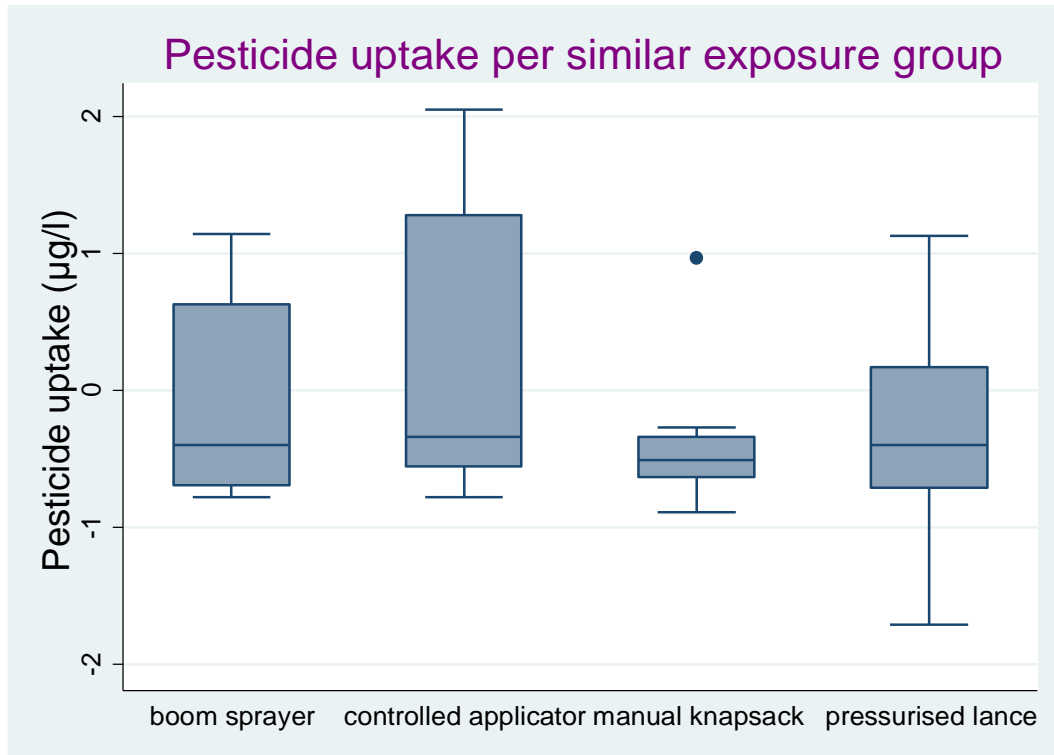


Table 1: Mean pesticide compound level in urine samples in µg/l

Manual knapsack with glyphosate	1.1
Controlled droplet applicator with glyphosate	2.5
Pressurised lance with glyphosate	0.9
Boom sprayer with fluroxypyr	0.8

Table 2: Glyphosate levels in urine samples in other studies in µg/l

Average in agricultural workers	3.2
Average in general population	0.2

- Exposure among all four similar exposure groups.
- With an increase exposure time, there was an increase in pesticide uptake
- The exposures were higher in this study compared to environmental exposures and they were comparable with agricultural studies.