



Reducing Risk with Better Application Technology: a Public Interest Perspective

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PAN's View on Risk Reduction

- Must have *use* reduction
- Must reduce reliance
- Better education of users
- Chemical inputs are affecting human health, environmental health, agricultural sustainability



Global problems

- Failure to apply basic safety measures e.g. re-entry
- Failure to observe no spray zones
- Failure to apply penalties for non-compliance
- Pesticides too hazardous to be used at all - endosulfan
- Real conditions of use and maintenance
- Slow uptake of improved technology



Hand-held equipment

- Most widely used
- Used for most toxic pesticides
- ***Leaks!***
- Malaysia: 30,000 women spray on average 262 days per year, frequently paraquat
- Should not be used for toxic pesticides where there is a chance of leaking



Airblast sprayers

- Bad technology
- Throws spray up into the air
- No amount of nozzle improvement can keep the pesticide on target
- Replace with tunnel sprayers



Aerial spraying

- NZ: 2,4-D - crop losses, human health effects
 - Agricultural Chemical Trespass Bill
 - Users say they must be allowed to drift
 - Need legal protection for victims
- Kasargod: cashews - endosulfan
- Hungary: mosquitoes - dichlorvos, deltamethrin
- Andalucia: olives - dimethoate
- West Auckland - latest technology didn't prevent drift and off-target deposition
- Should not be used where people are exposed or with hazardous pesticides



PAN activities

- **PAN North America:** new drift website
- **PAN UK:** bystanders exposure campaign
- **PAN Europe:** total ban on aerial spraying
- **PAN Asia Pacific:** ban on paraquat - common cause of poisoning with handheld sprayers
- **PAN Aotearoa NZ:** supports Ag Chem Trespass Bill
- no drift beyond boundary of property



Better technology?

- prevents exposure to bystanders
- minimises operator exposure
- delivers pesticides directly to the target
- reduces amount of pesticide used
- used correctly under common conditions of training
- properly maintained under common conditions of use
- fits the growing system



Concluding Comments

- Must acknowledge conditions of use
- Must remove worst pesticides because of inherent hazard or conditions of use - endosulfan, paraquat
- ***Onus of responsibility on those who promote pesticide use to ensure appropriate technology - that will reduce amount of pesticide used, and reduce risk to operator, bystanders, environment - is available and practicable under conditions of use, and is accompanied with training to ensure proper use and maintenance***