

Reducing Environmental Pollution from Pesticides through Increasing Environmental Resistance and Reducing Use.

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Since the beginning of the pesticide era, the focus has been on toxicity: toxicity to pest species and potential toxicity of pesticides and residues on humans. Lagging behind this focus have been considerations of pesticide impact on non-target, non-human species. Often ignored have been the secondary and tertiary influences on pest genetics and ecosystem function. Despite repeated failures of toxicity-based risk assessment, evidenced by the rise of resistance, resurgence, and replacement, failures persist. Here, I argue that managing selection should be given equal weight to toxicity in risk assessment and that selection management will mitigate potential ecosystem effects of pesticide use.