



# Pesticide Risk Reduction

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**Mark Davis**

Director for Agriculture &  
Regulatory Outreach

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THE UNIVERSITY  
of EDINBURGH

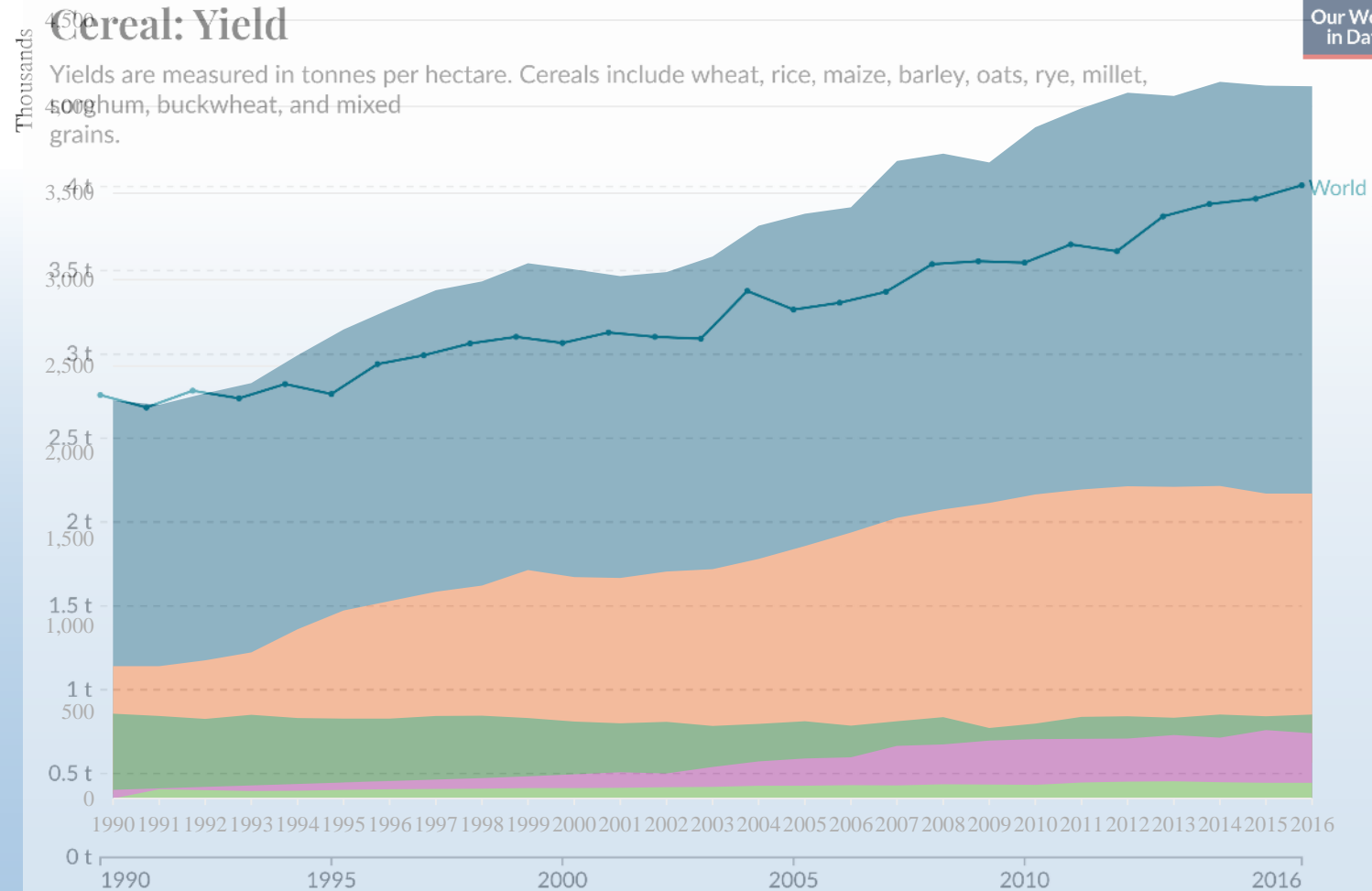


Centre for  
PESTICIDE SUICIDE  
PREVENTION



Open  
Philanthropy

# Pesticide use, 1990 - 2016 (metric tonnes of active ingredient)



Our World  
in Data

X 1.86

X 1.45

Data source: Food and Agriculture Organization of the United Nations, Argentina, Brazil, Africa

FAO STAT, September 2018

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# Current thinking

- The cocktail of chemical pollution that pervades the planet now threatens the stability of global ecosystems upon which humanity depends (Stockholm Resilience Centre 2022)
- The assumption by regulators around the world that it is safe to use pesticides at industrial scales across landscapes is false (UK Chief Scientific Advisor)
- There is no conflict between low pesticide use and both high productivity and high profitability in the majority of arable farms (Nature Plants 2017)
- Today's dominant agricultural model is highly problematic, not only because of damage inflicted by pesticides, but also their effects on climate change, loss of biodiversity and inability to ensure food sovereignty (UN Special Rapporteur on the Right to Food)



# Impact on people

**385 million**  
**poisonings/year globally**

**15,000 deaths/year**  
**globally**

**150,000 pesticide**  
**suicide deaths/year**



# Are synthetic chemical pesticides doing what you think they are doing?

Predator/parasite populations are declining and slow to recover

Pest resistance/ Pest relocation

Increased nutrition & palatability of crops to pests from chemicals

Beneficial organism populations decline (insects, amphibians, reptiles, birds, mammals)

Soil biota depleted

Phyto-toxicity of pesticides







# How Pesticide Risk Reduction?



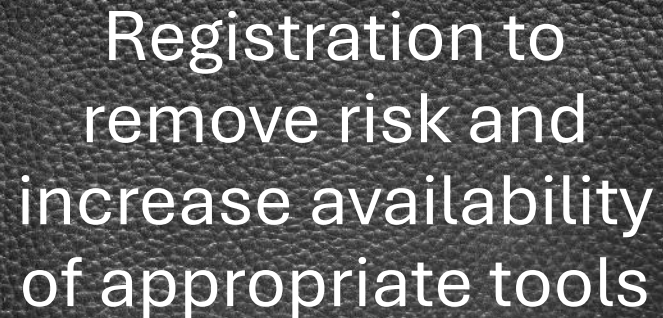
Farmer knowledge



Input vendor  
support



Extension and  
service provider  
support



Registration to  
remove risk and  
increase availability  
of appropriate tools



Legislation to allow  
regulators to act



Policy to guide  
legislation

Which objective  
is better?

**Pesticide  
Risk  
Reduction**

**Pesticide  
Risk  
Elimination**



“...We can’t save the world by playing by the rules, because the rules have to be changed. Everything needs to change and it has to start today.” Greta Thunberg



*Thank you for your attention*