Reducing Pesticide Drift:
Measures of Performance

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Nozzle, bozzle.
Droplet, schmoplet.

What's it all mean to me?

Technology v. Enforceability

- Years of research have revolutionized pesticide application
- Decisions once based on seat-of-the-pants judgements and a finger (or burning tire) to the wind are increasingly based on scientific instruments and precise equations
- But are they enforceable?

Technology v. Enforceability

- Making the profession more scientific also makes it more complex
- The more complex it becomes, the more difficult to enforce in the field
- Is it so complicated that we suffer from an epidemic of inadvertent noncompliance?

Yin v. Yang

- On the other hand, making things too simple reduces flexibility
- Precise, cookbook rules to prevent drift have a high cost in efficacy and ignore years of scientific research designed to provide both efficacy and protection

It's Different in the Field

- Many engineering specifications --like application pressure--impossible to determine after an application is completed
- Other elements --droplet size, for example-- not feasible for enforcement personnel to determine even during an application
- Location where wind speed is to be monitored impossible to define in a way that definitively prevents drift

It's Different in the Field

- Whether or not an application meets technical specifications is difficult to determine even during an application, much less afterwards
- Even if enforcement personnel conclude that applicators followed all the detailed technical specs in new regulations, it wouldn't necessarily follow that they exercised "due care"

What to Do?

- There needs to be scientific consensus whether controlling average droplet size is the best approach
  - Does it work? Can we enforce it? Will it prevent drift? At what cost?
- Using a drift spectrum or percent fine spray approach needs further definition

What to Do?

- Link performance standards based on the best technology to certification standards
- We need to pay greater attention to checking equipment specifications in both routine inspections and episode investigations
- We need to dictate technical specifications, and mandatory equipment inspections to make sure that operators are following them