THE EFFECT OF FORMULATION ON DICAMBA VOLATILITY AS MEASURED BY LOW TUNNELS

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TWO TYPES OF OTM (OFF-TARGET MOVEMENT)

- Particle Drift - movement of spray particles during or shortly after the spray application (May be called “Near Drift”)

- Vapor Drift (Volatility)- movement of pesticide vapors (gas, fumes).
  - Volatilization is the physical change of a liquid or a solid to a gas (May be called “Far Drift”)
MOST IMPORTANT FACTORS INFLUENCING VAPOR DRIFT

- Formulation - vapor pressure
- Tank-mix additives
- Temperature
- Inversions
METHODS OF MEASURING VOLATILITY

- Thermo-Gravometric
- Humidome
- Flux studies / air samplers
- Low tunnels
MATERIALS & METHODS

- Low Tunnels
  - 20 foot long
  - AR, GA, IN, LA, MS, NE
Treated flats were placed between two rows of soybeans in the center of the dome, and plastic sheeting was placed over the dome frame.

Treated flats and plastic sheeting were removed 48 hours after application.
VISUAL INJURY ACROSS ALL LOCATIONS

- Banvel
- Clarity
- Engenia
- Xtendimax
- Xtend + AMS
- RupXtend
- Check

14 DAT  28 DAT
MOST IMPORTANT FACTORS INFLUENCING VAPOR DRIFT?

- Formulation - vapor pressure
- Tank-mix additives
- Temperature
- Inversions
VISUAL INJURY ACROSS ALL LOCATIONS
MOST IMPORTANT FACTORS INFLUENCING VAPOR DRIFT?

- Temperature
- Vegetation Type & Size / Soil
- Effect of rainfall / irrigation on volatility
THANK YOU

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