

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

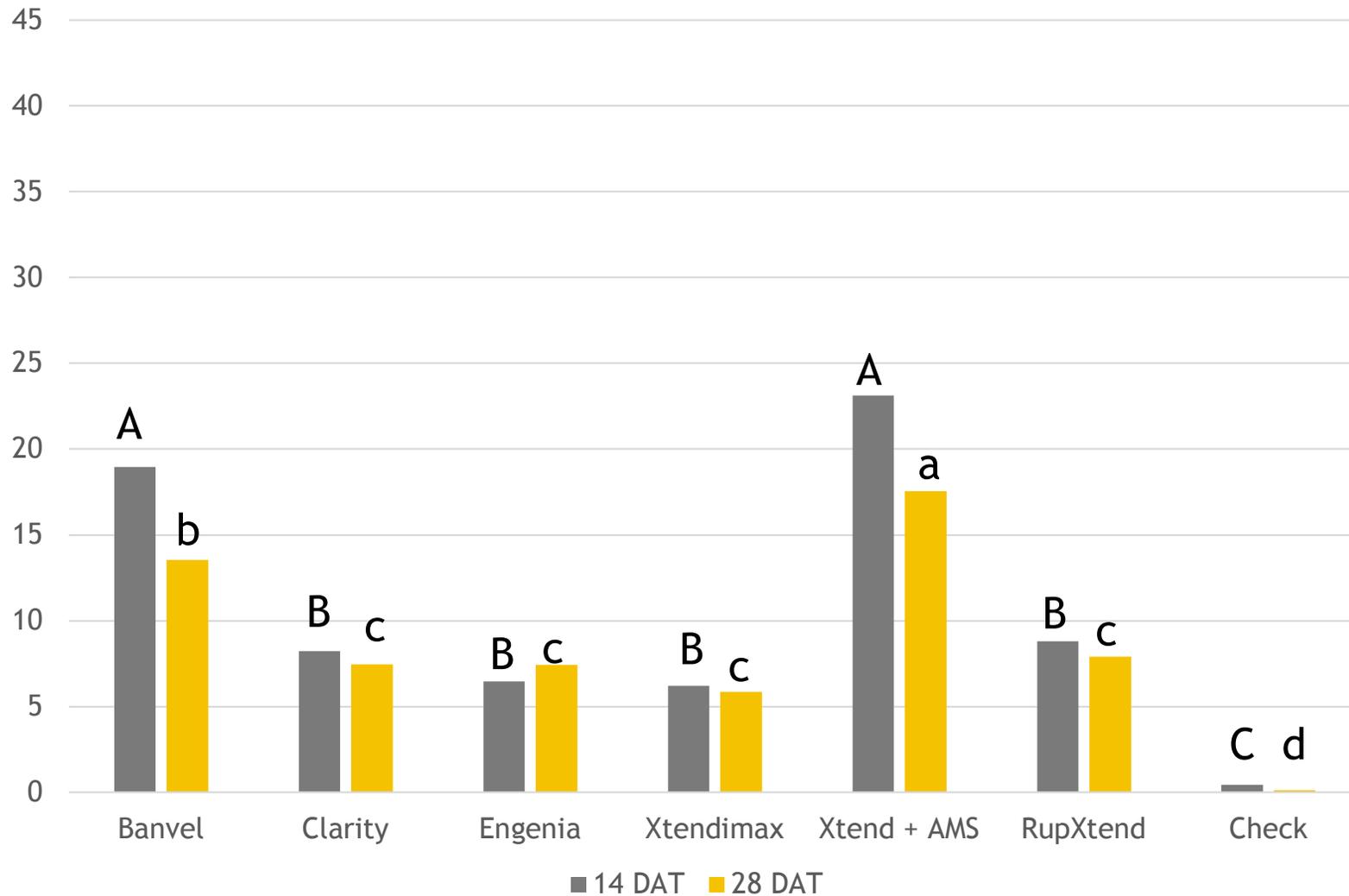


MATERIALS & METHODS

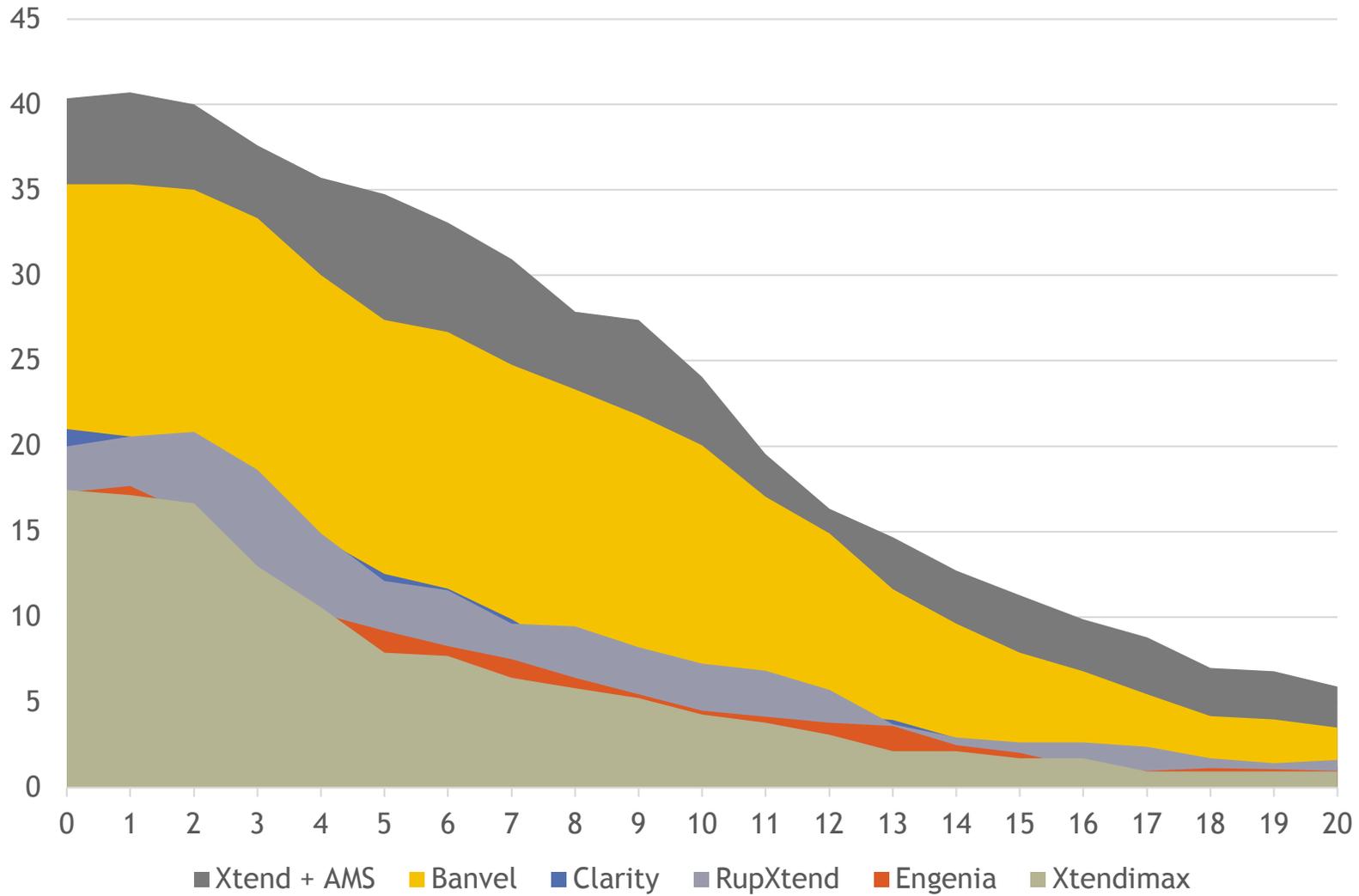
- Treated flats were placed between two rows of soybeans in the center of the dome, and plastic sheeting was placed over the dome frame
- Treated flats and plastic sheeting were removed 48 hours after application



VISUAL INJURY ACROSS ALL LOCATIONS



INJURY 14 DAT BY DISTANCE

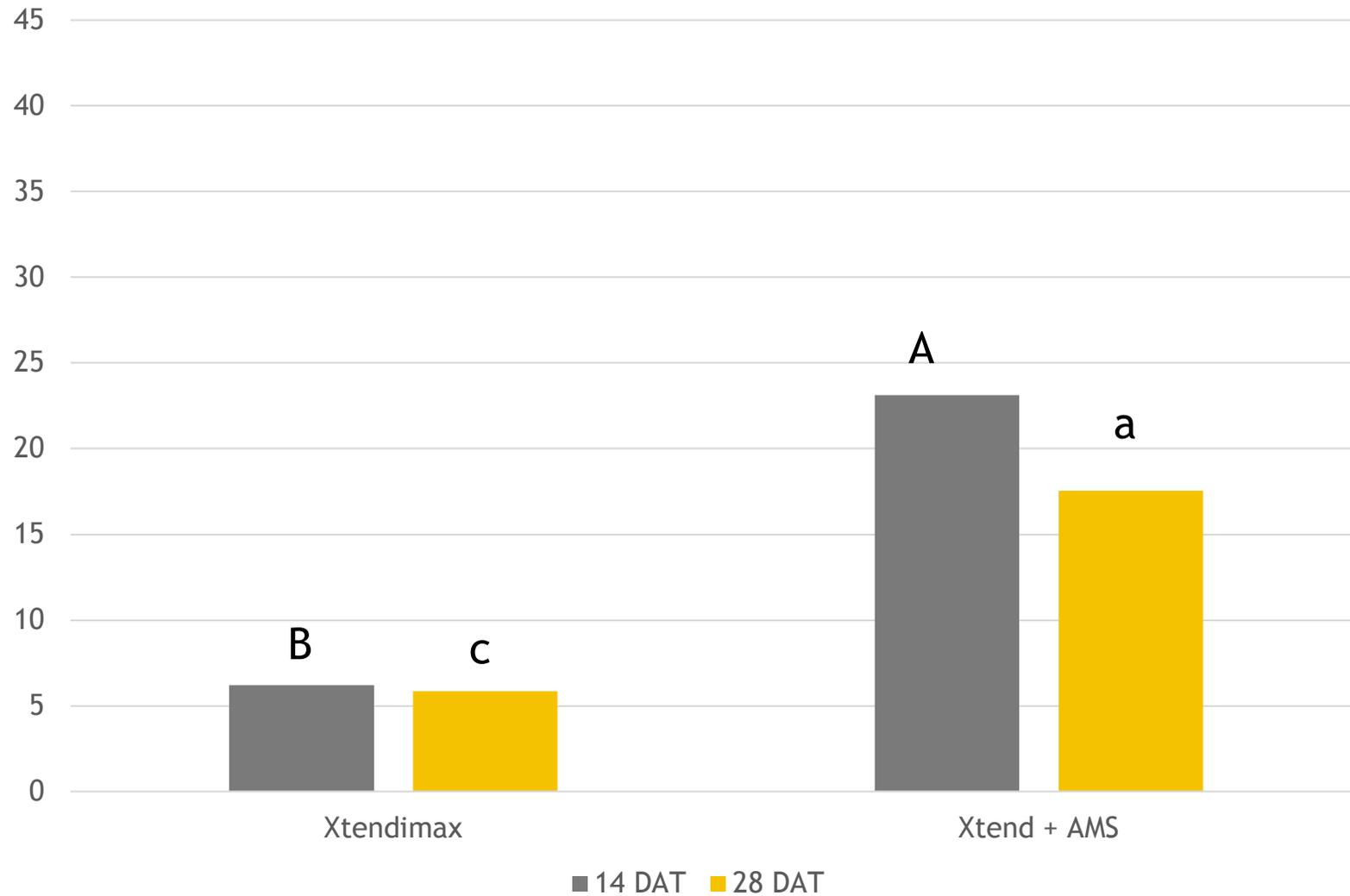


MOST IMPORTANT FACTORS INFLUENCING VAPOR DRIFT ?

- ◉ 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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