

*GET THE MOST FROM  
YOUR POSTS*

*(Improving POST Herbicide Performance)*



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# *POST Herbicide Performance*



Environment X Application

moisture

temperature

humidity

calibration

timing

adjuvants

nozzle selection

spray volume

antagonism

# *Topic for Discussion*



- calibration
- timing
- adjuvants
- nozzle selection
- spray volume
- antagonism



## *Sprayer Calibration*

*Some Surveys said.....*

- only 33% of operators were within 5% of target output (NE)
- 60% of the applicators were over or under applying pesticides by more than 10% (ND)
- Have you calibrated yours lately!!!!

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# *Postemergence Herbicide Applications and Weed Size*



*Timing is everything and size matters!!!*

*Why???*

- smaller weeds easier to control
- lower rates can be used
- reduce competitive effects of weeds

# *Optimum Timing of POST Applications*



definitely



probably



No way!!!

# *A Few Exceptions to the Rule*

## *Controlling Bigger Weeds*

### Weed

pigweed

cocklebur

hemp sesbania

Bristly starbur

### Herbicide (s)

Pursuit

Basagran, Classic

Blazer

Strongarm (?)

*Delayed applications result in competition and yield loss !!!!!*

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# *Herbicide Adjuvants*

## *Types*

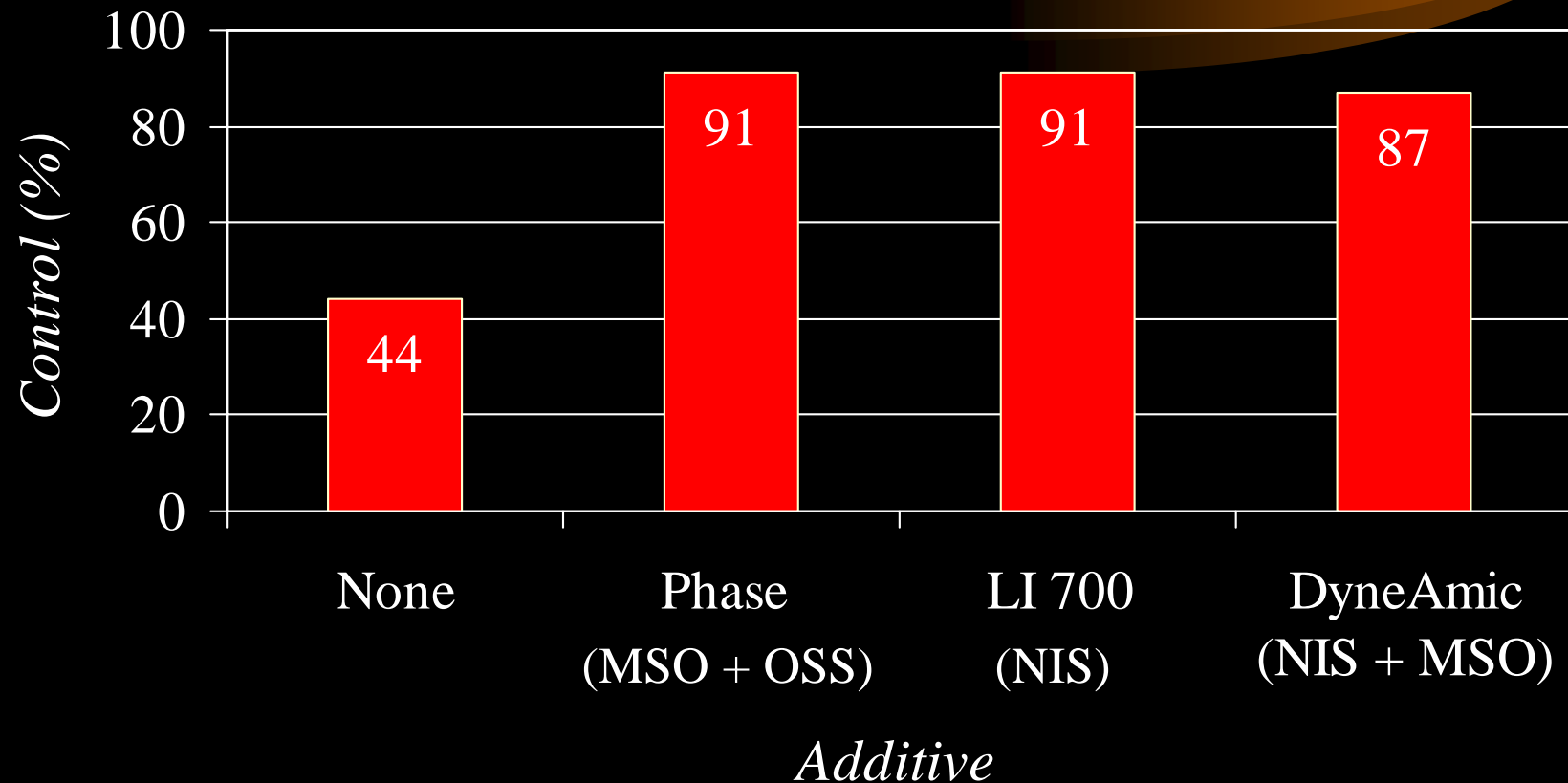
- non-ionic surfactants (NIS)
- organosilicone surfactants
- crop oil concentrates (COC)
- fertilizers (N)
- buffers
- compatibility agents
- drift reduction agents
- stickers

# *Herbicide Adjuvants*

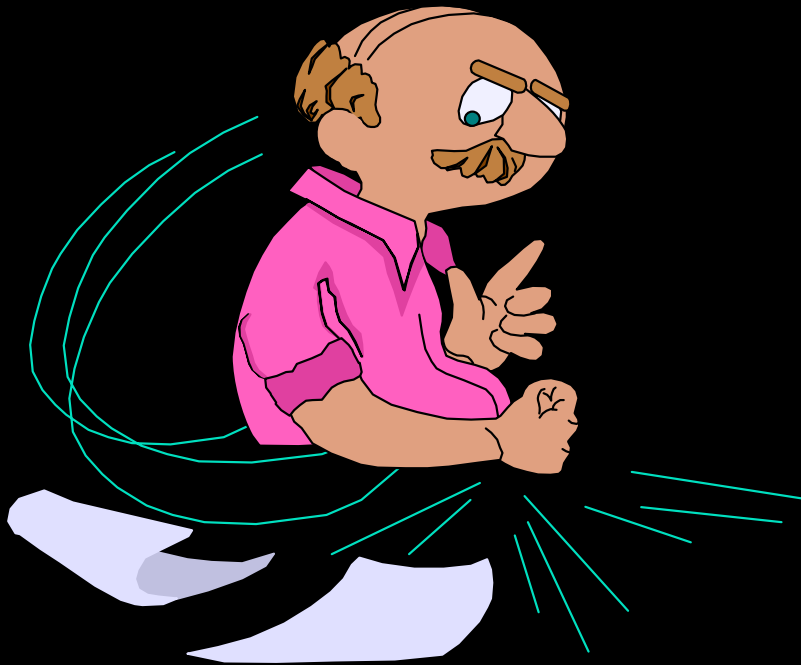
## *What do they do??*

- modify or maximize performance
- increase absorption and retention
  - \* decrease surface tension of water
  - \* prevent interaction with Ca, Na
  - \* increase permeability of cell membrane and cuticle

# *The influence of additives on sicklepod control with Cadre - 68 DAT*



# *Herbicide Adjuvants*



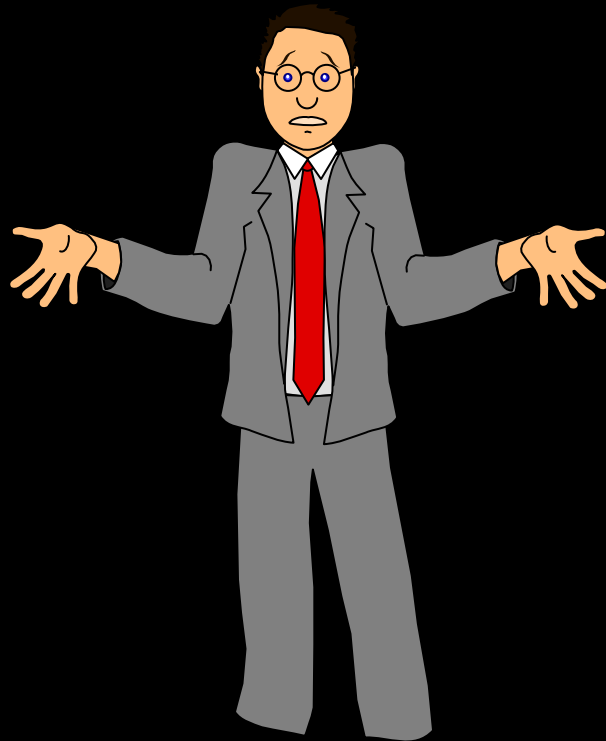
- read label
- COC > NIS
- avoid “miracle”  
products

# *Topic for Discussion*












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- **nozzle selection**
- spray volume
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# *Nozzle Selection* *(contact or systemic herbicide?)*



- contact
  - \* Gramoxone Max, Basagran, Blazer, Storm, Tough
- systemic
  - \* Cadre, Pursuit, Select, Poast, 2,4-DB, Classic

		Herbicides			
		Soil Incorporated	Pre-Emerge	Post-Emerge	
				Contact	Systemic
	<b><i>Turbo TeeJet</i></b> WIDE ANGLE FLAT SPRAY TIP	<b>Excellent</b>	<b>Excellent</b>	<b>Good</b>	<b>Excellent</b>
	<b><i>AI TeeJet</i></b> AIR INDUCTON SPRAY TIP	<b>Excellent</b>	<b>Excellent</b>	<b>Good</b>	<b>Excellent</b>
	<b><i>XR TeeJet</i></b> EXTENDED RANGE FLAT SPRAY TIP	<b>Excellent</b> (At Lower Pressure)	<b>Excellent</b> (At Lower Pressure)	<b>Excellent</b>	<b>Excellent</b> (At Lower Pressure)
	<b><i>DG TeeJet</i></b> DRIFT GUARD FLAT SPRAY TIP	<b>Excellent</b>	<b>Excellent</b>	<b>Good</b>	<b>Excellent</b>
	<b><i>TeeJet</i></b> STANDARD FLAT SPRAY TIP	<b>Good</b>	<b>Good</b>	<b>Good</b>	<b>Good</b>
	<b><i>TwinJet</i></b> TWIN FLAT SPRAY TIP			<b>Excellent</b>	
	<b><i>Turbo FloodJet</i></b> WIDE ANGLE FLAT SPRAY TIP	<b>Excellent</b>	<b>Excellent</b>		<b>Excellent</b>
	<b><i>FullJet</i></b> WIDE ANGLE FULL CONE TIP	<b>Excellent</b>	<b>Excellent</b>		<b>Excellent</b>
	<b><i>Quick TeeJet</i></b> EIGHT ORIFICE				

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## *Spray Volume*



- contact or systemic
- contacts need better coverage i.e. more water
- contact herbicides need to be applied in at least 15 GPA
- systemic herbicides can be applied in 10 GPA but would prefer 15 GPA

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# *Antagonism*

## *What is it?*

- interaction of 2 or more chemicals that results in a decrease in plant response.

# *Antagonism Problems in Peanuts*

- Broadleaf + grass herbicides
  - \* *2,4-DB + Poast or Select*
  - \* *8-15% reduction in grass control 45% of time*
- Herbicide + Fungicides
  - \* *Select + chlorothalonil*
  - \* *Herbicides + Kocide or Mankocide*

# *Get the most from your Posts!*

- Can't do much about the weather but
- Can greatly influence application
  - \* *calibration*
  - \* *timing*
  - \* *adjuvants*
  - \* *nozzle selection*
  - \* *spray volume*
  - \* *antagonism*