

**Selective herbicides**

- Broadleaf herbicides  
*Garlon, 2,4-D, Milestone, Transline, Imprelis, Vista*
- Grass herbicides  
*Poast, Envoy, Fusilade*
- Mixed activity  
*Matrix, Telar, Oust, Esplanade*

**Nonselective herbicides**

*Roundup, Habitat*

**Soil-applied**

*Matrix, Telar, Oust, Esplanade*

**Both soil and foliar activity**

*Milestone, Transline, Imprelis, Habitat*

**Foliar-applied**

*Roundup, Garlon, 2,4-D, Vista; grass herbicides*

	Non-selective	Selective		
		Broadleaf	Grasses	Mixed
<b>Foliar applied</b>	<i>Roundup</i>	<i>Garlon, 2,4-D, Vista</i>	<i>Poast, Envoy, Fusilade</i>	
<b>Both soil and foliar</b>	<i>Habitat</i>	<i>Milestone, Transline, Imprelis</i>		
<b>Soil applied</b>				<i>Matrix, Telar, Oust, Esplanade</i>

**Broadcast vs. directed applications**





## Broadcast application

- Usually uses selective herbicide
- Small amount of herbicide in water
- Requires careful calibration, application

## Backpack sprayers

- Simple design
- Easy to fill & clean
- Inexpensive

Good for

- Low volume applications (<40 GPA)
- Small, odd shaped areas
- Obstacles – rocks, trees, terrain

Get a diaphragm pump sprayer, not a piston





Directed applications – treat individual plants  
*Can use nonselective herbicides*



Spray-to-wet application

## Making a spray-to-wet treatment

- Spray to wet, not to run-off
- Practice applying on a known size plant (or patch)
- Teach the crew for consistency



Drizzle application for shrub weeds



Rope wick applicator for tall weeds

Broadcast  
nonspecific  
herbicide for late-  
season annual  
weeds?



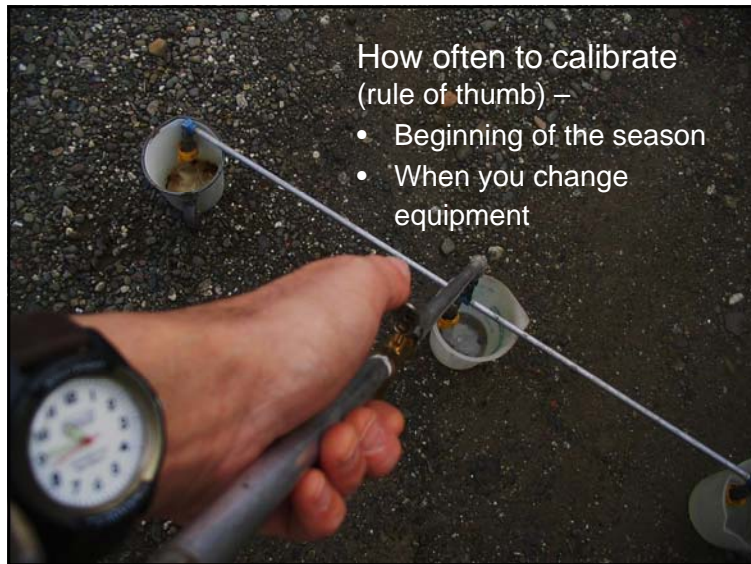
Why calibrate?

- Underapplication
- Overapplication



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## Calibration

**Pressure**

- nozzles
- boom height

**Output**

- flow rate
- overall spray volume

**Speed**

- spray width
- acre length
- pacing yourself

Pressure

The image shows a pressure gauge with a scale from 0 to 100 PSI. Below it is a close-up of an orange TeeJet XR nozzle. To the right is a photograph of a spray wand assembly with a blue hose and a pressure gauge, connected to a tank.

TeeJet XR ("Extended Range") nozzles

A row of ten different colored TeeJet XR nozzles: orange, green, yellow, purple, blue, red, brown, grey, and white.

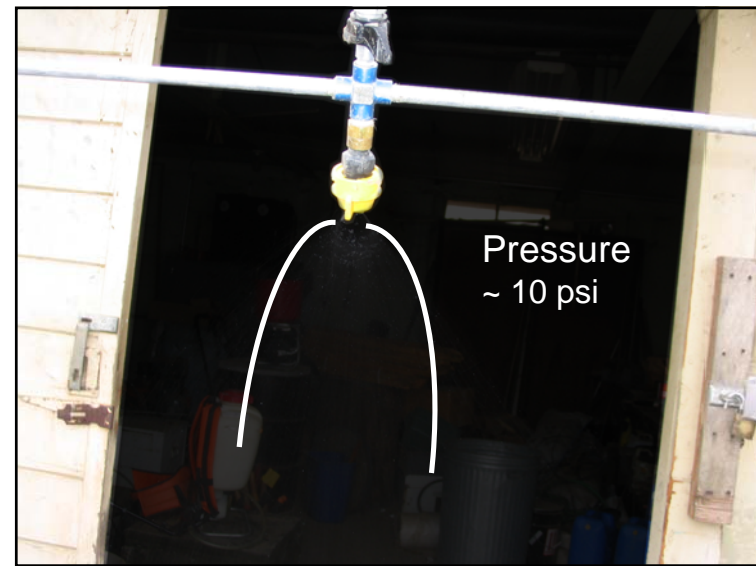
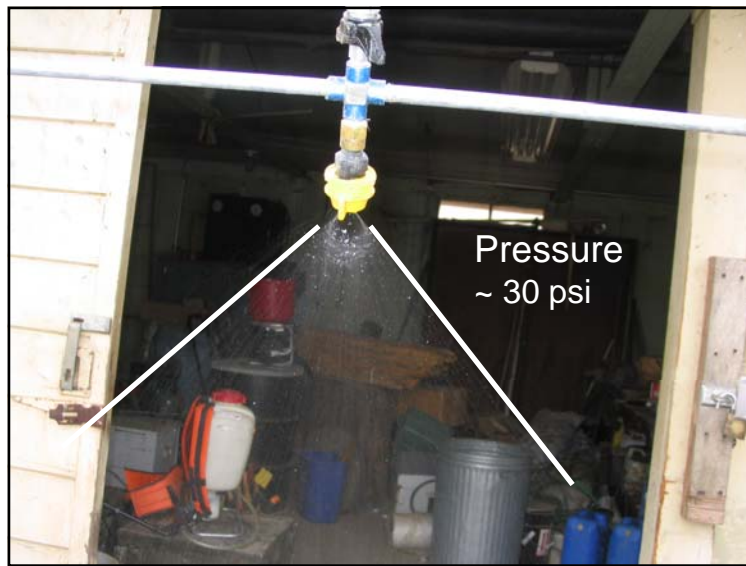


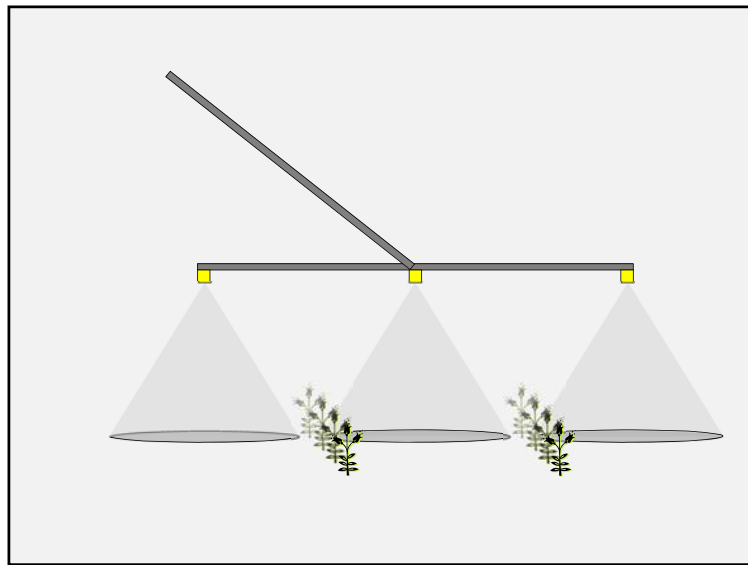
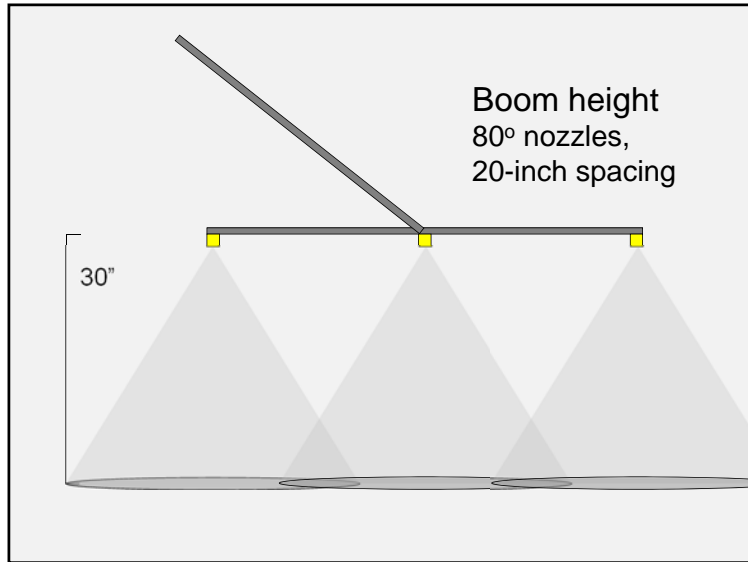
### TeeJet XR8002

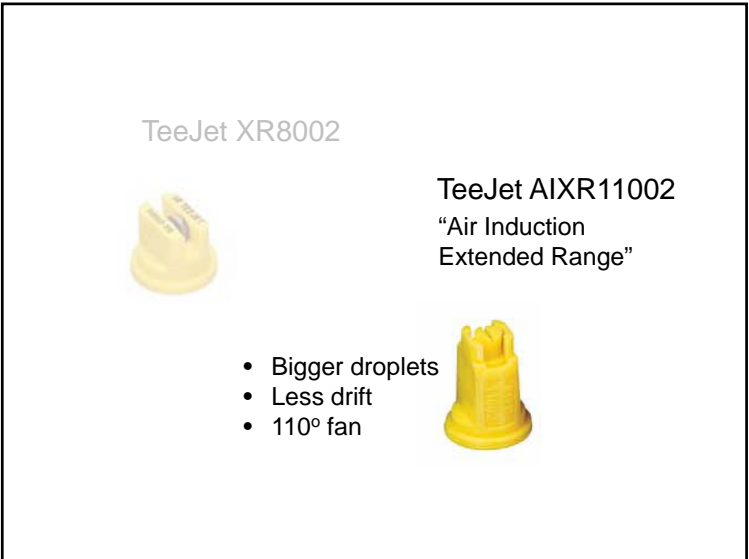
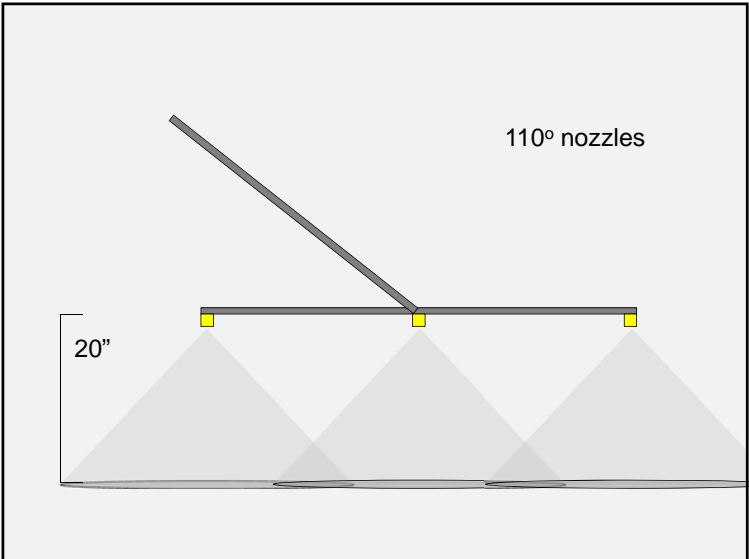
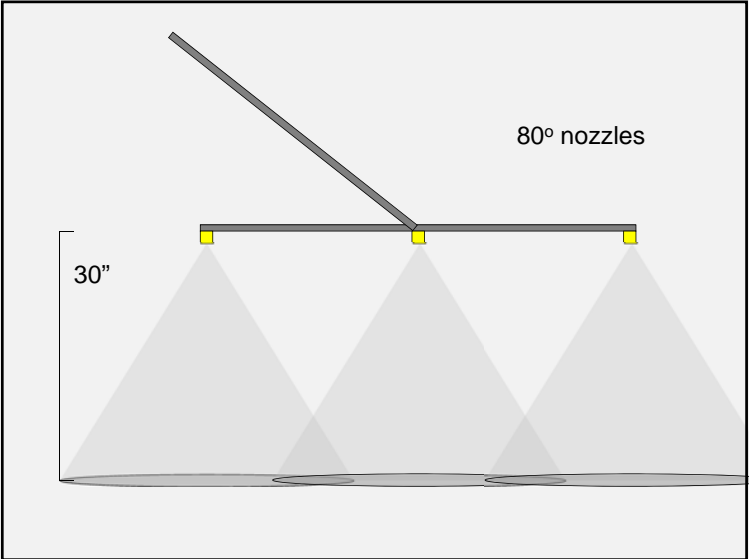
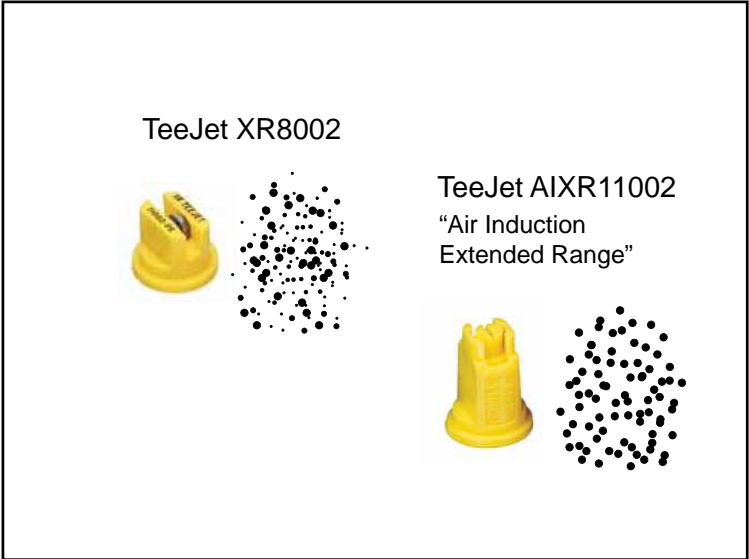


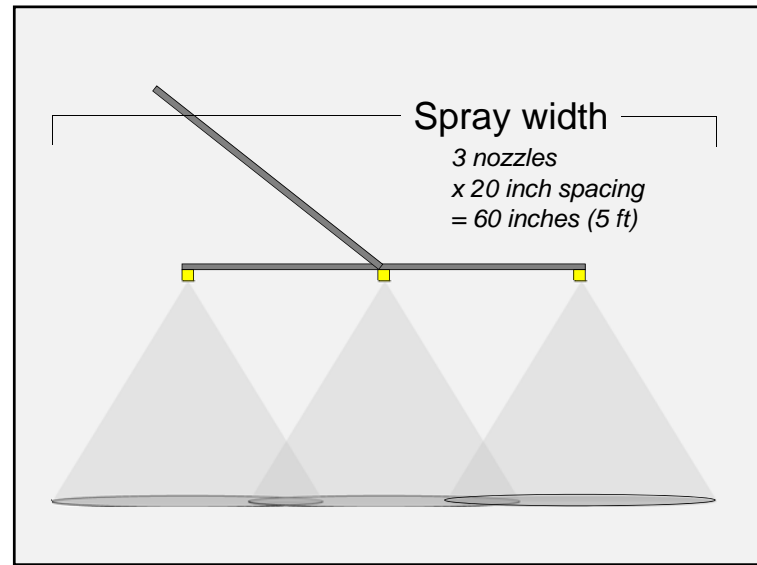
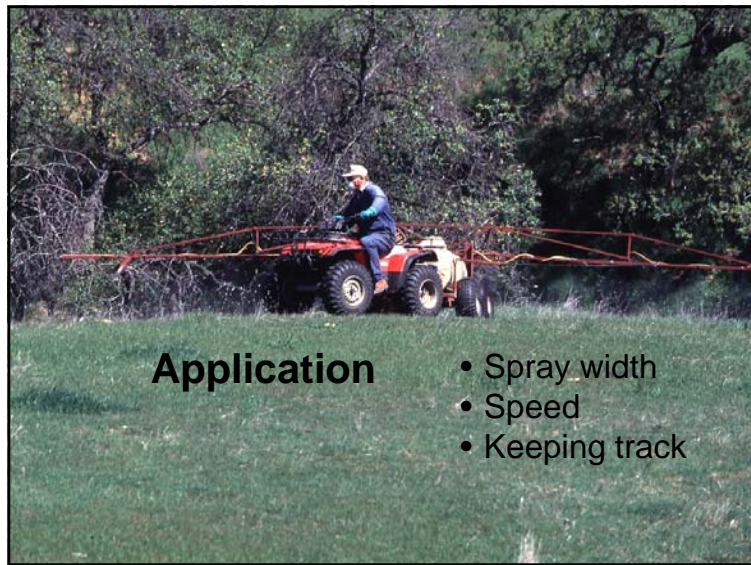
80° fan, "02" means 0.2 gpm / 40 psi

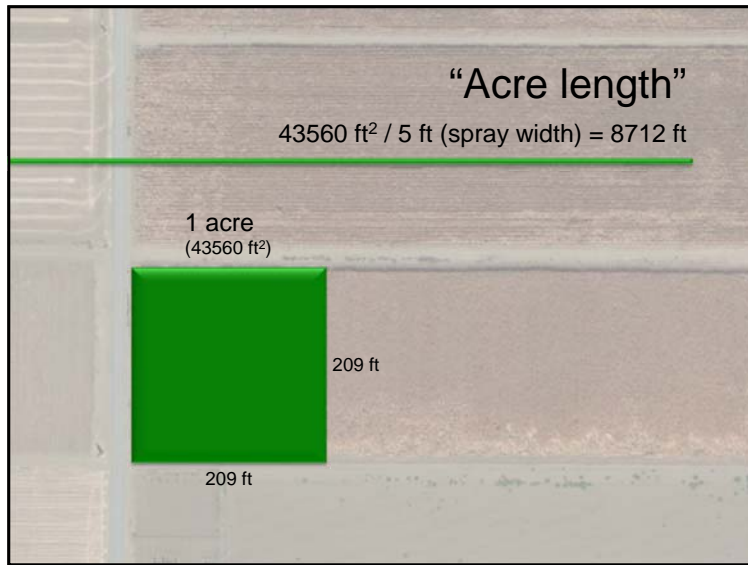
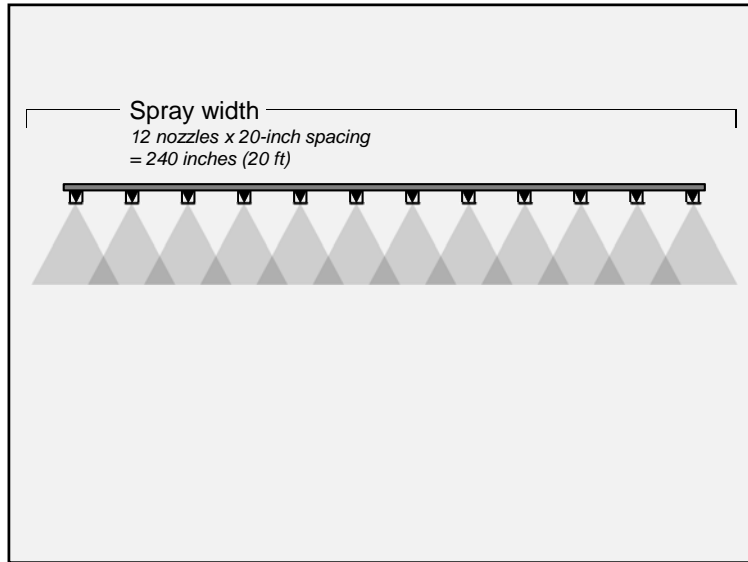
- Works at a range of pressures
- Good for 10 to 25 gallons per acre at a walking pace, 30 psi














ATVs usually have an ideal travel speed for a given terrain.



- Use low gear, high RPMs
- Find a sweet spot in 3 to 10 mph
- If no speedometer, time yourself over a known distance *on site* (or use GPS)



Dyes, GPS

