

Calibration and other Tools

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Determining Area

- Tools
 - Wheels
 - Tapes
- Pacing
 - Walk 100 ft. counting steps
 - Divide 100/number of steps
 - This equals the number of feet per step.



Determining Area

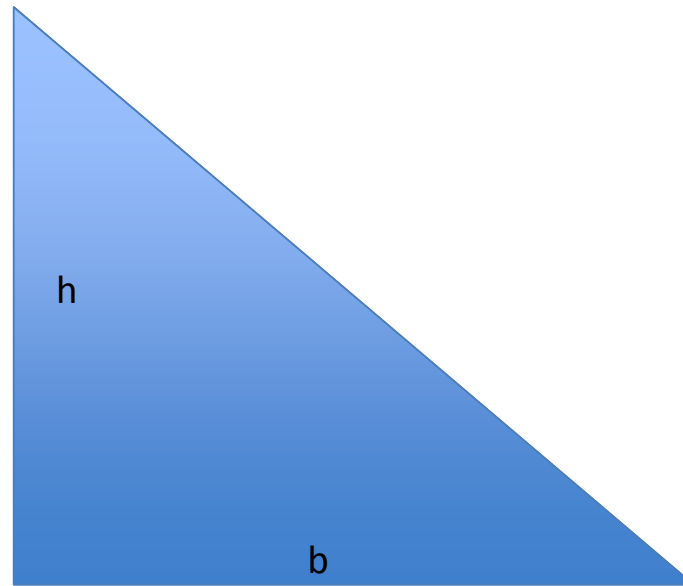
Squares &
Rectangles



$$A = l \times w$$

Determining Area

Triangles



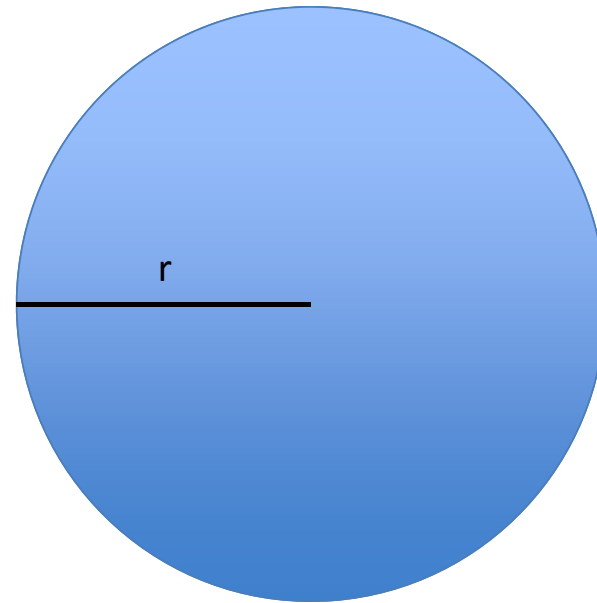
$$A = \frac{1}{2} b \times h$$



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Determining Area

Circles



$$A = \pi r^2$$



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Determining Area

Rectangle

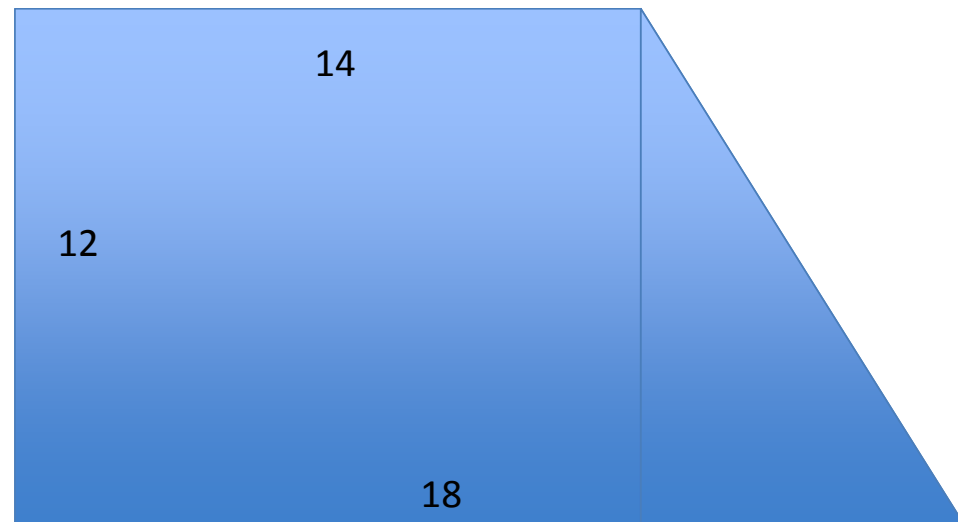
$$14 \times 12 = 168$$

Triangle

$$\frac{1}{2}(4) \times 12 = 24$$

Total

$$168 + 24 = 192 \text{ ft}^2$$



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Calibrating Sprayers and Spreaders

- Must first determine swath width
- Sprayers depends on nozzle spacing and height
- Spreaders determined by ground speed



Calibrating Sprayers and Spreaders

- Nozzle Selection
- What do the numbers mean?
- Angle
- Output
- Recommended Typical Application



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Manufacturer Recommendations

Nozzle	Soil Incorporated	Pre-Emergence	Herbicide		Fungicides		Insecticides		Drift
			Post-Emergence		Contact	Systemic	Contact	Systemic	Control
			Contact	Systemic					
XR Flat Fan			Excellent	Good	Excellent	Good	Excellent	Good	Good
Air Induction	Very Good	Very Good	Good	Excellent	Good	Excellent	Good	Excellent	Excellent
Drift Guard Flat Fan			Good	V. Good	Good	V. Good	Good	V. Good	V. Good
Flood Jet	Excellent	Excellent		V. Good		V. Good		V. Good	Excellent
Hollow Cone			Excellent		Excellent		Excellent		
Even Flat Fan	Good	Good	Good	Good	Good	Good	Good	Good	Good
Boomless									



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Sprayer Calibration

- Determine Band Width or Nozzle Spacing
- Use Card to determine distance
- Walk/drive that distance while timing
- Catch water from nozzle for that time
- Caught water equals GPA



Drop or Spin Spreader

- Determine swath width
- Measure distance to travel
- Catch all material for given distance and measure weight
- Tarps work well.
- 20 ft. tarp x 20 ft. swath = 400 ft²



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