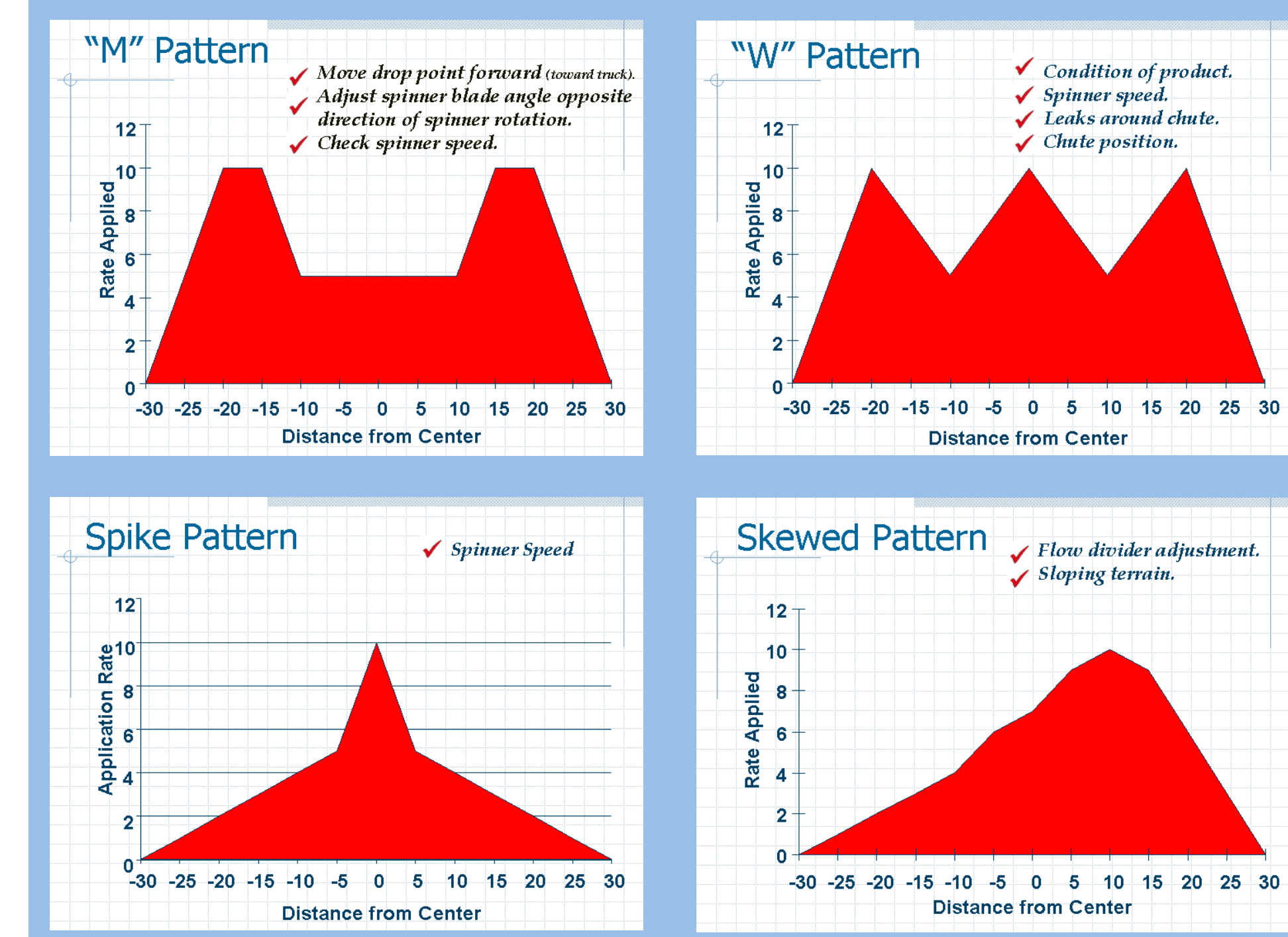


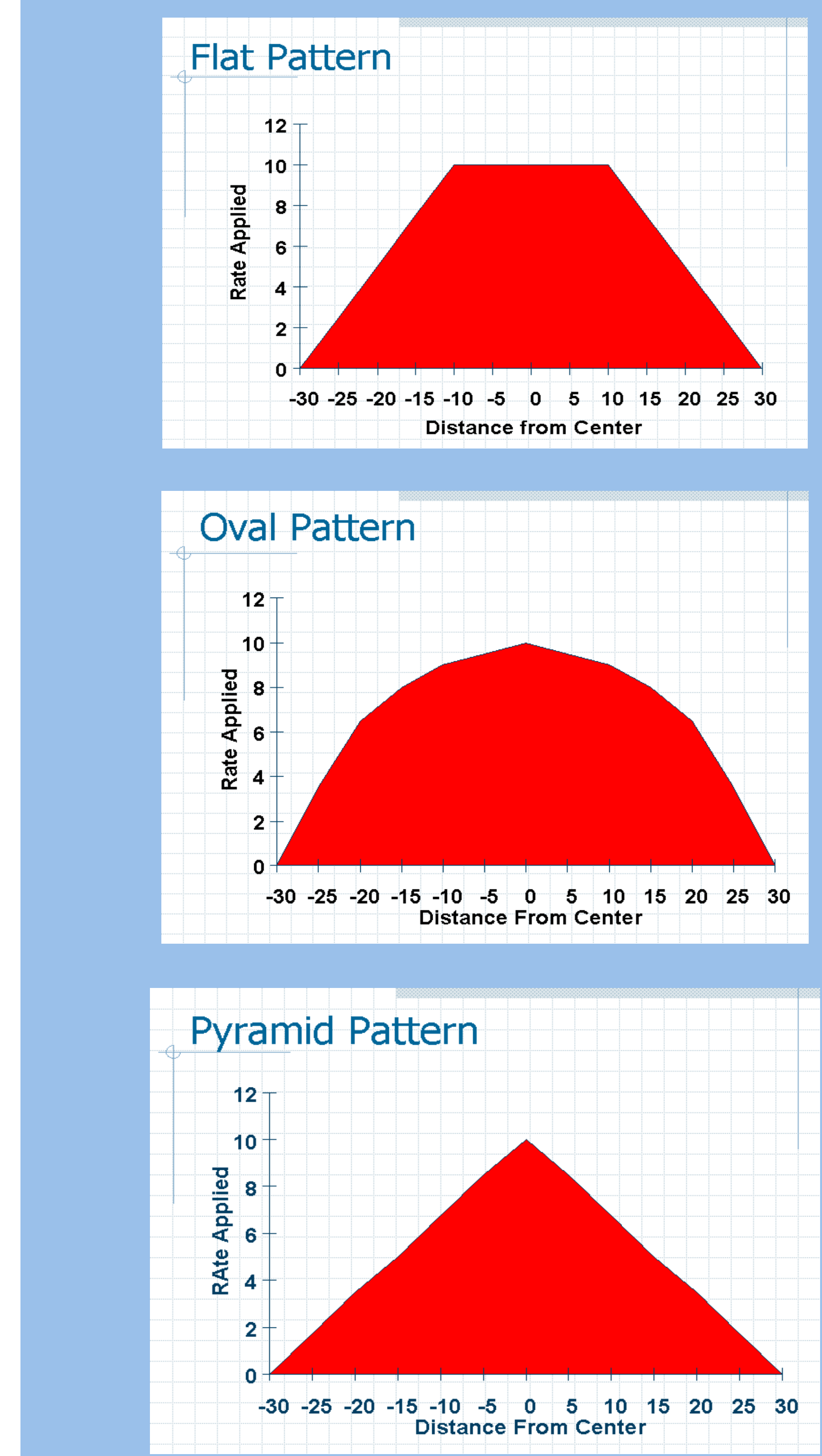
Spreader Patterns and Calibration

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Undesirable Patterns



Desirable Patterns



Swath Calibration Methods

Swath Control

- Determine correct swath width for the spreader and product you are spreading
- Maintain uniformly spaced Swaths
 - Use foam markers
 - Use DGPS and Lightbar

Swath Calibration Methods
 Determining Swath Width by Pattern Inspection Methods

Visual Method
 Determining Swath Width by: Pattern Inspection Visual Method

Equation Method
 Determining Swath Width by: Pattern Inspection Equation Method
 $Swath = Pattern Width / 2$

Equation Method
 Determining Swath Width by: Pattern Inspection Equation Method
 $Swath = (Pattern Width + Center Width) / 2$

Broadcast Spreading

- Fertilizer
- Lime
- Soil Amendments
- Crop Protection Products

Broadcast Spreading Objectives

- Apply the Correct Rate of Product..
- Apply a Good Pattern.
- Maintain Proper Swath and Overlap.

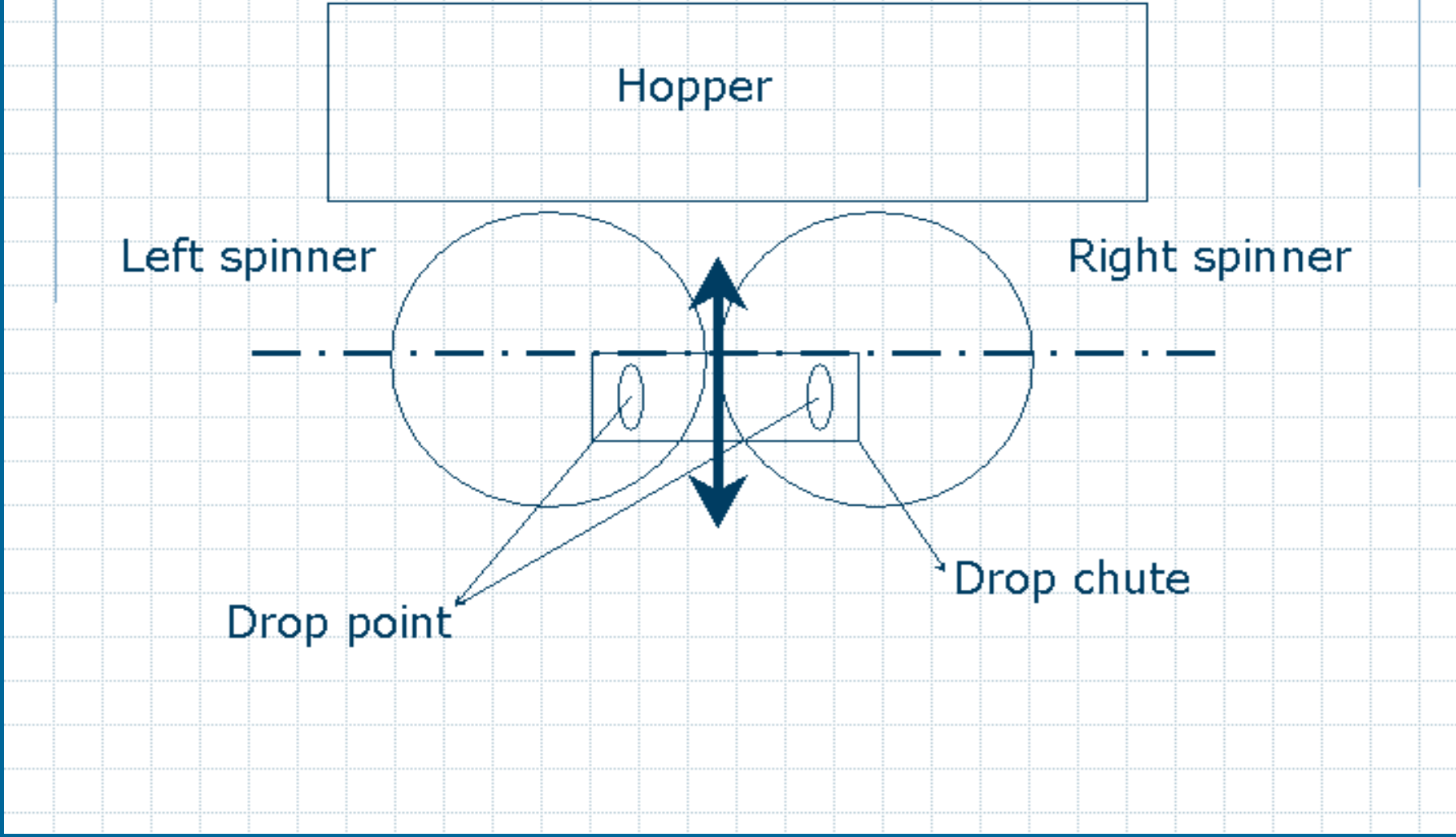
Types of Spreaders

- Single Spinner
- Pendulum
- Twin Spinner
- Air Boom

Pattern Check Method

- Collection Pan
 - Test Tube
 - Measure volume of product collected in pan
 - Convert to weight based on density
 - Scale
 - Measure weight of product collected in pan

Controlling the Pattern



Calibration

- Adjustment for proper rate of discharge.
- Pattern adjustment for desired shape.
- Swath control to maintain width and overlap.

Calibration Methods

- Discharge Rate**
- Drag Chain Delivery
 - Measure discharge rate at drop chute.
 - Weigh sample for time or distance, convert into pounds per acre.
 - Adjust calibration.
 - Test Tube Sample
 - Collect product in pans across width of swath.
 - Measure volume, Convert into pounds per acre.
 - Adjust calibration.

Troubleshooting

- Drag chain condition.
- Reversed hydraulic lines.
- Worn or bent spinners or blades.
- Build up on spinners.
- Flow divider or drop chute.
- Frozen adjustments.
- Corroded components.

Summary

- Know your equipment.
- Calibrate when necessary.
- Be safe!

Swath Testing Methods

