



QWEL

Qualified Water Efficient Landscaper

Class Five A, Part One: Water Management

Class Five A, Part Two: Determining Water Budgets



Class Five A, Part One: Water management

Overview

1. Determine precipitation rates & use charts
2. Perform & interpret a catch can test
3. Understand matched precipitation rates & distribution uniformity
4. Be familiar with the irrigation runtime formula



Water management

Keys to irrigation efficiency

Know how much water to apply
(based on weather and plants)

- Good distribution uniformity
- Matched precipitation rates
- Maintained and managed by knowledgeable staff





Keys to irrigation efficiency

Distribution uniformity

DU – how evenly water is applied (percentage)

To achieve good DU

- Adjust sprinklers for head-to-head sprinkler coverage
- Eliminate common causes of poor distribution uniformity





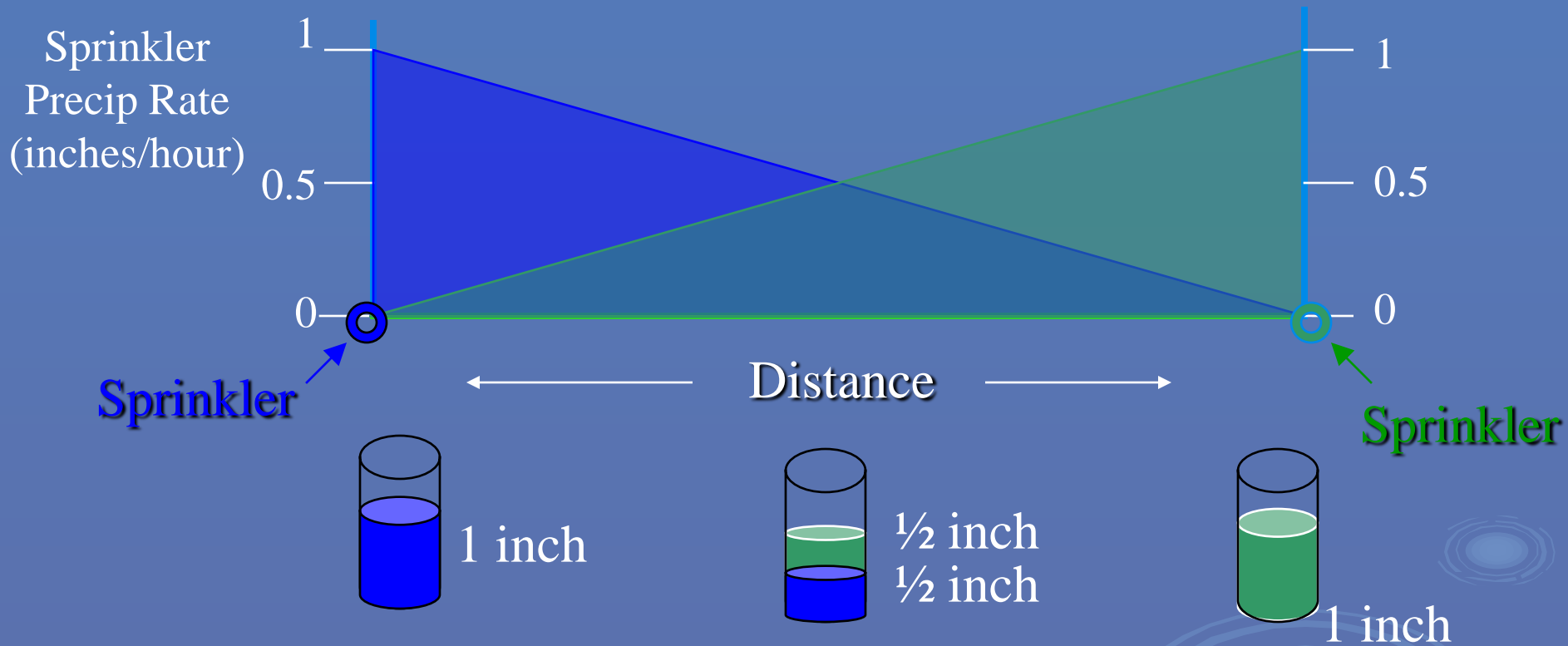
Distribution uniformity

Head to head coverage



Distribution uniformity

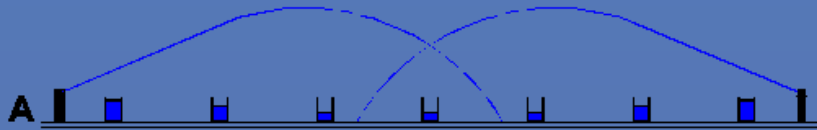
Head to head coverage



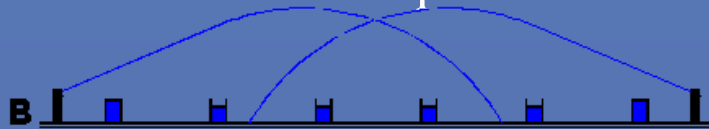
Distribution uniformity

Good design = Good DU

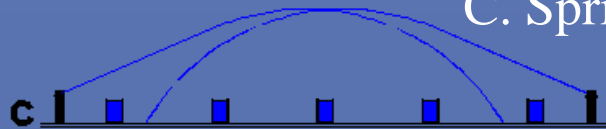
A. Sprinklers barely overlap & middle cups are only $\frac{1}{2}$ full



B. Sprinklers are closer but water is still not evenly applied



C. Sprinklers with head to head spacing and full cups



Graphics and text courtesy of www.IrrigationTutorials.com

Distribution uniformity

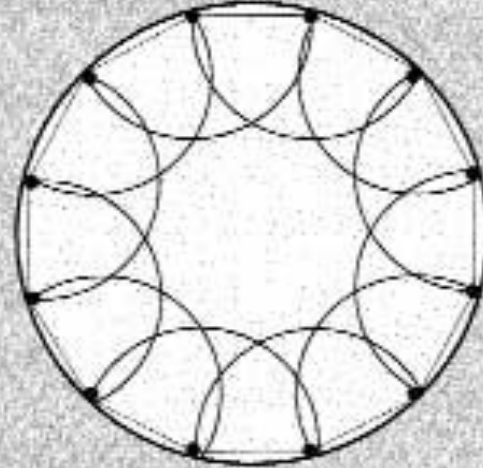
Head to head in “perfect” areas

RECTANGULAR SPACING



Perpendicular grid lines are drawn from one perimeter head to another. Locate additional sprinklers at intersection of grid lines.

EDGE METHOD



Convert curve to a series of straight edges, locate sprinklers at critical points.



Distribution uniformity

Head to head in windy area



Windy Area Installation:

☀ Space sprinklers 45%
of the diameter!