

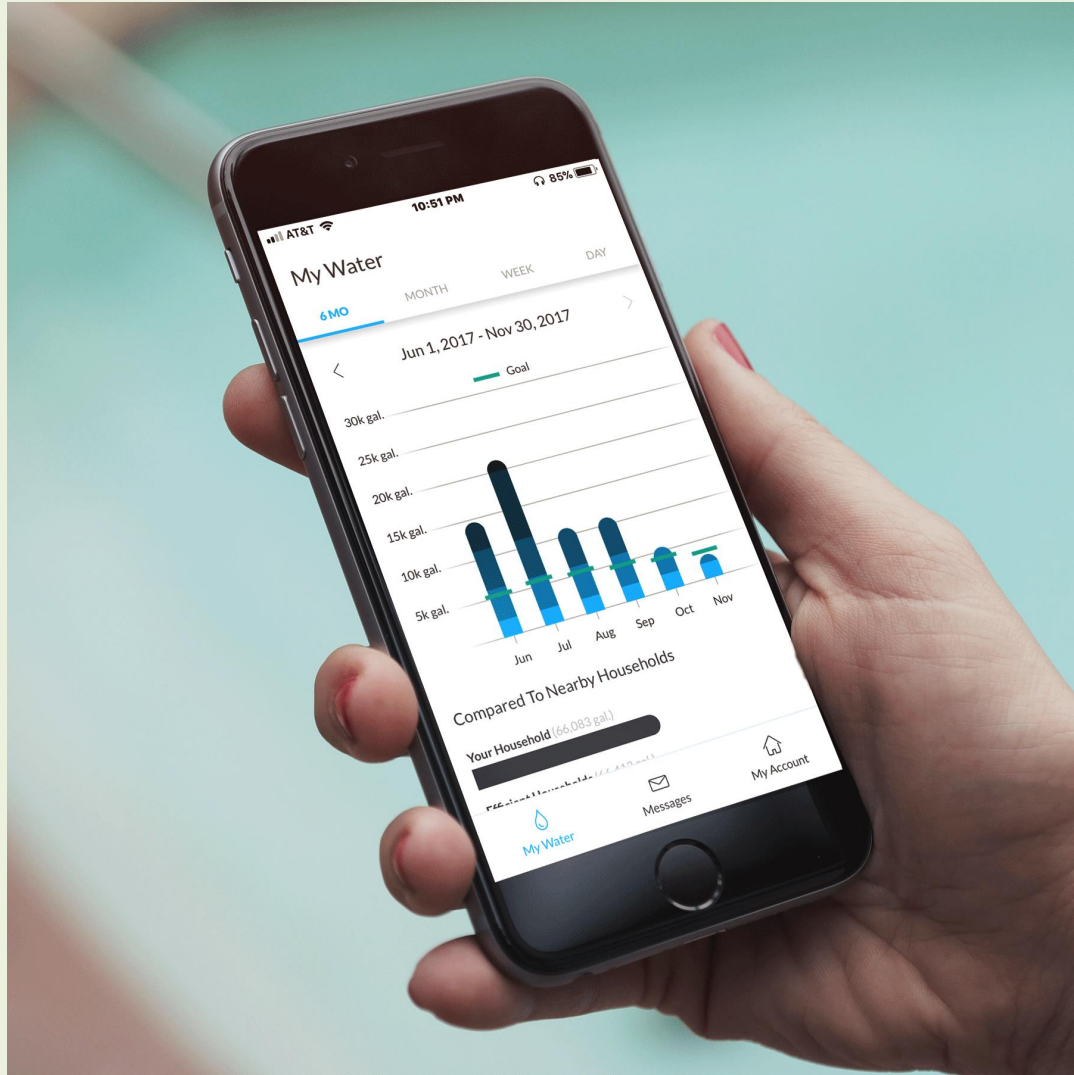
**Folsom Water Conservation
QR Code**

**Folsom's Water Conservation
Webpage**

- Rebates
- Water Wise House Calls
- Videos and Presentations
- Workshops
- Drought Info



dropcountr



How much water do you use each month?

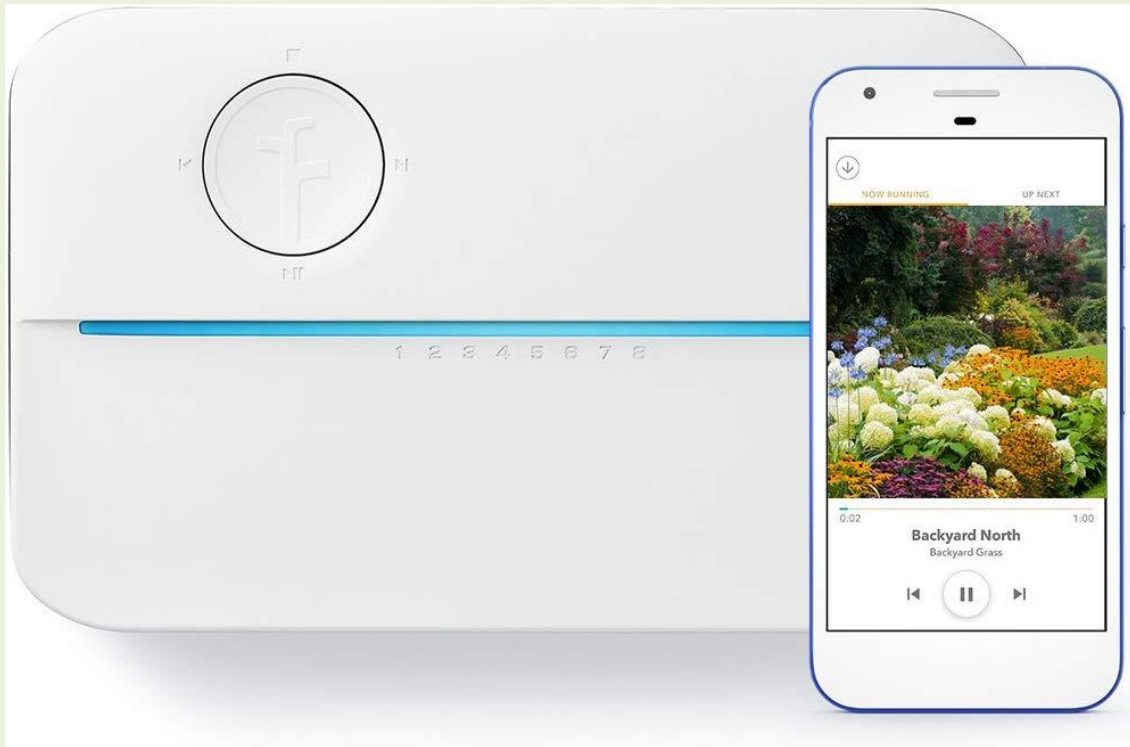
More than my neighbors

Less than my neighbors

Not sure? Find out.

Already have a Dropcountr account? [Log in](#)

Direct Purchase Programs





CITY OF
FOLSOM
DISTINCTIVE BY NATURE

An Irrigation Primer



Tonight's Agenda

- Managing your sprinklers
 - How, Why, When
- Scheduling your Sprinklers
 - Taking full advantage of your timer
- Equipment
 - Upgrading from 1970's (or older) technology



Managing Your Sprinklers

- The most common question...

How long should I water?

Just long enough!

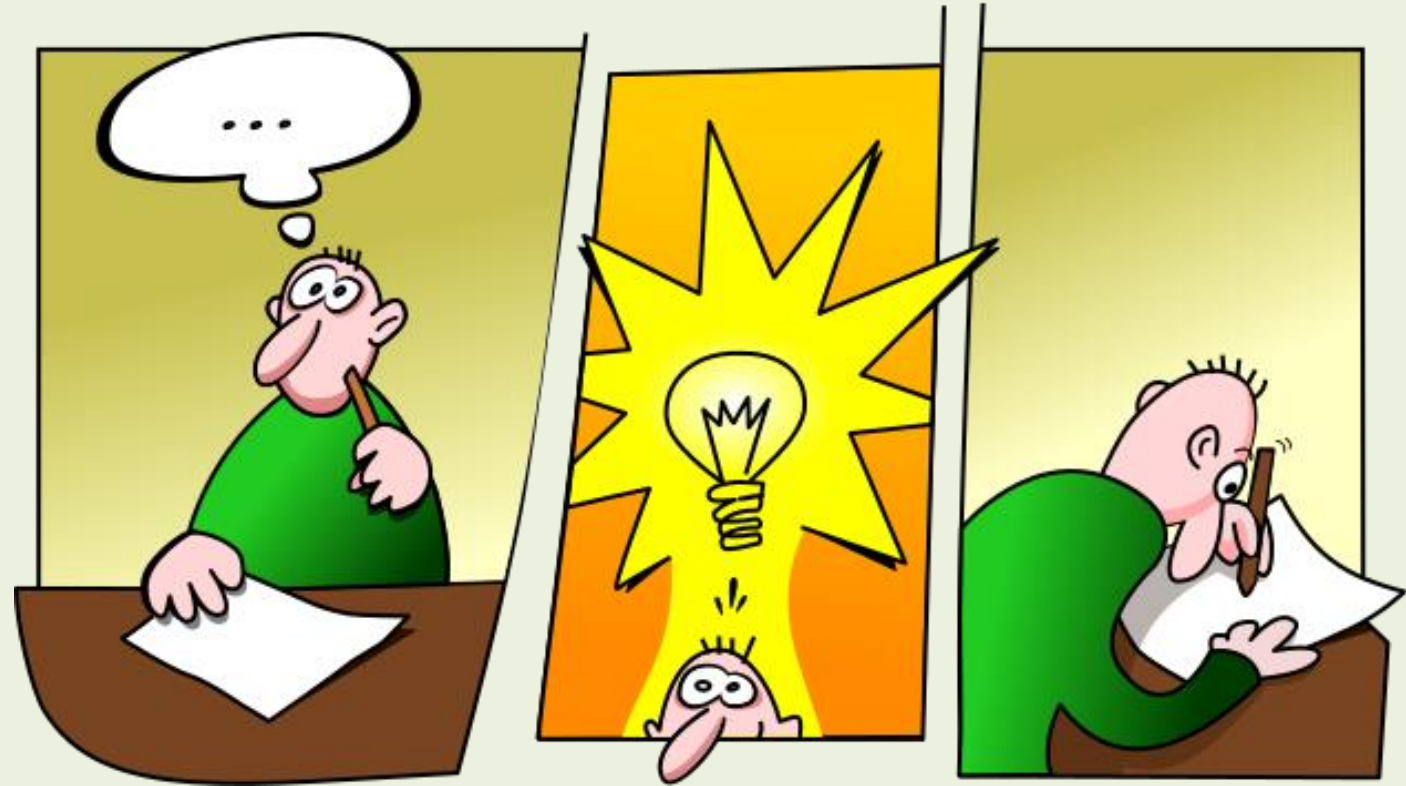
- The better question...

How well do I water?

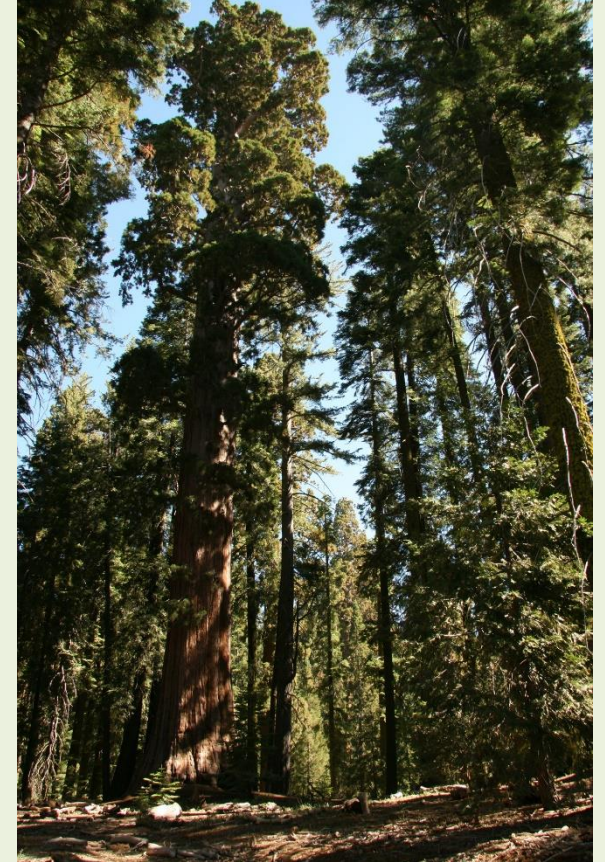


Factors to Landscape Water Needs

- Plant Material
- Irrigation Equipment
- Sun Exposure
- Soil Type
- Slope



Plant Material



Sun Exposure



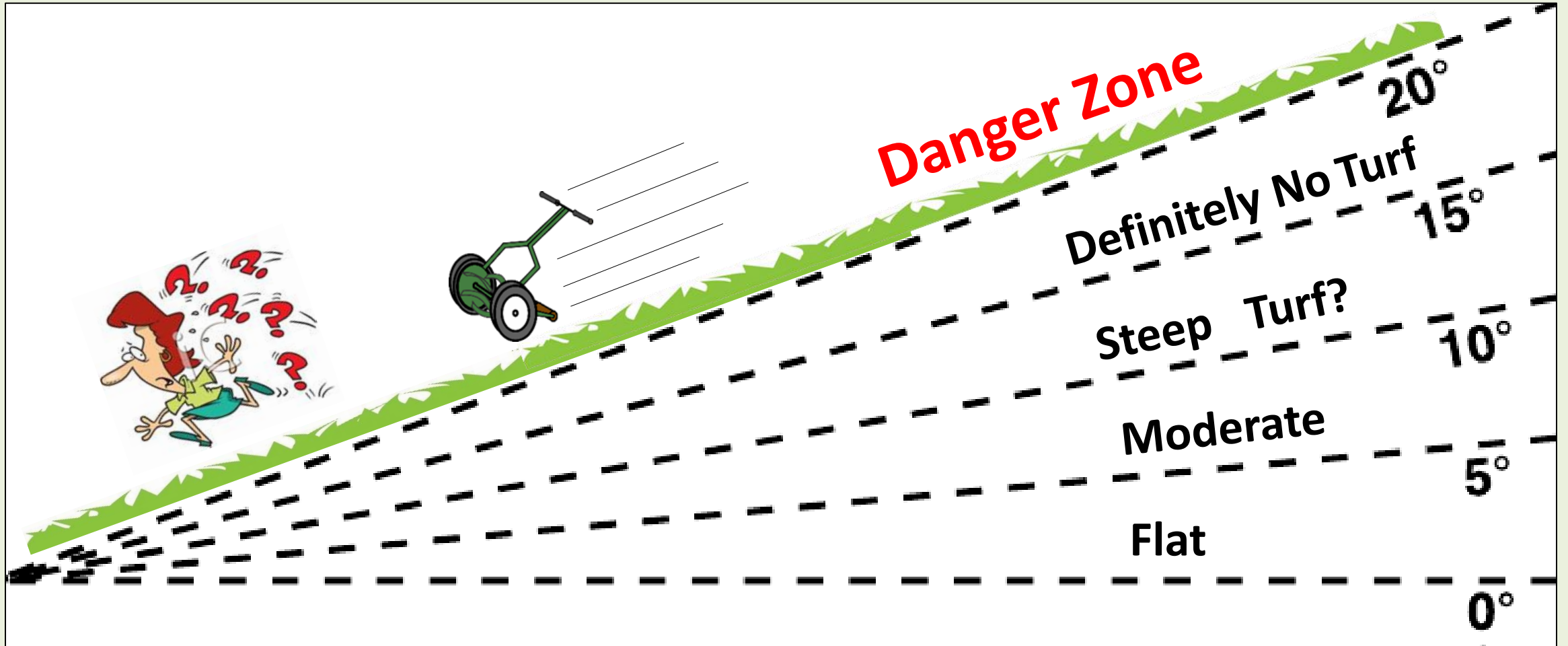
Types of Soil



FOLSOM SOIL



Slopes



Managing Your Sprinklers

- When do you need to water?

When the soil is dry

- When should you not water?

When the soil is moist

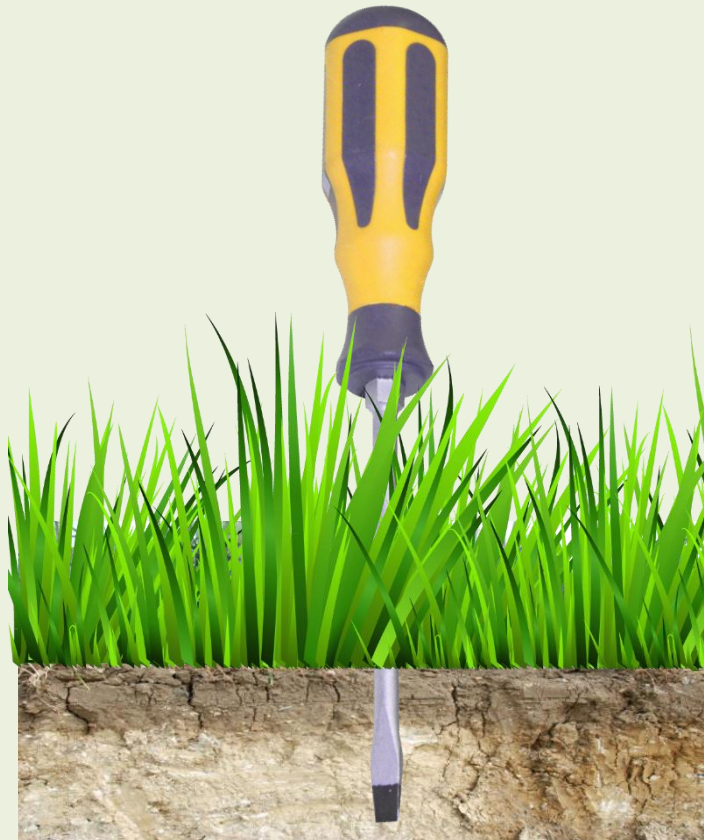
- How can you tell?

Check – look and touch the soil!



Managing Your Sprinklers

Soil Probes



Managing Your Sprinklers

- When?
 - Avoid daytime hours with overhead sprinklers
 - Anytime for drip systems
- How long?
 - Less time than it takes to runoff
 - What's the infiltration rate?



Managing Your Sprinklers

- Cycle and Soak
 - Water short of runoff
 - Allow to soak in for 1 – 2 hours
 - Water again
 - Repeat as necessary



Managing Your Sprinklers

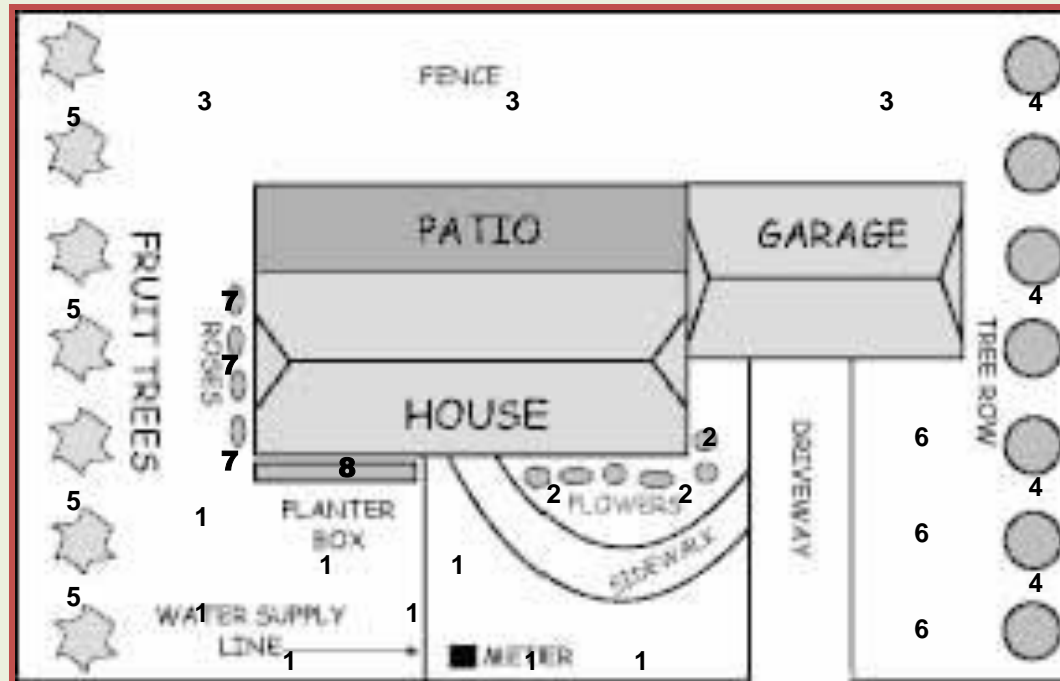
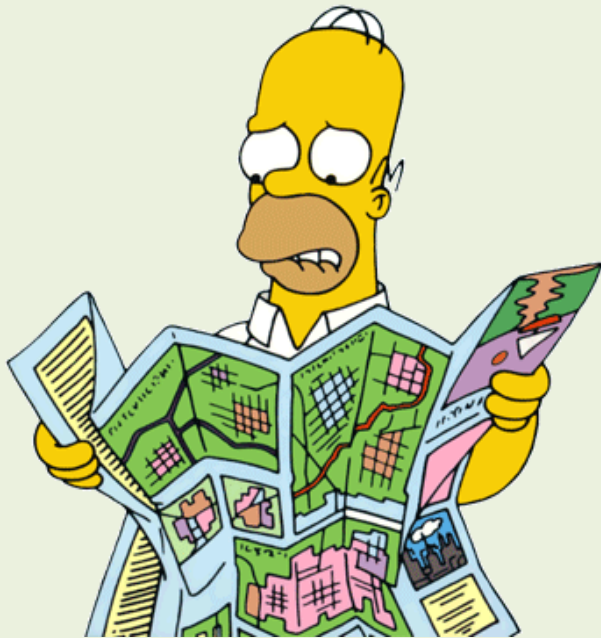
- Know your timer
 - READ THE MANUAL**
 - Programs
 - Start times
 - Run times
 - Interval scheduling
 - Calendar scheduling
 - Seasonal (%) adjustment
 - SMART Timer?



Don't fear the manual!

Managing Your Sprinklers

- Make a zone map

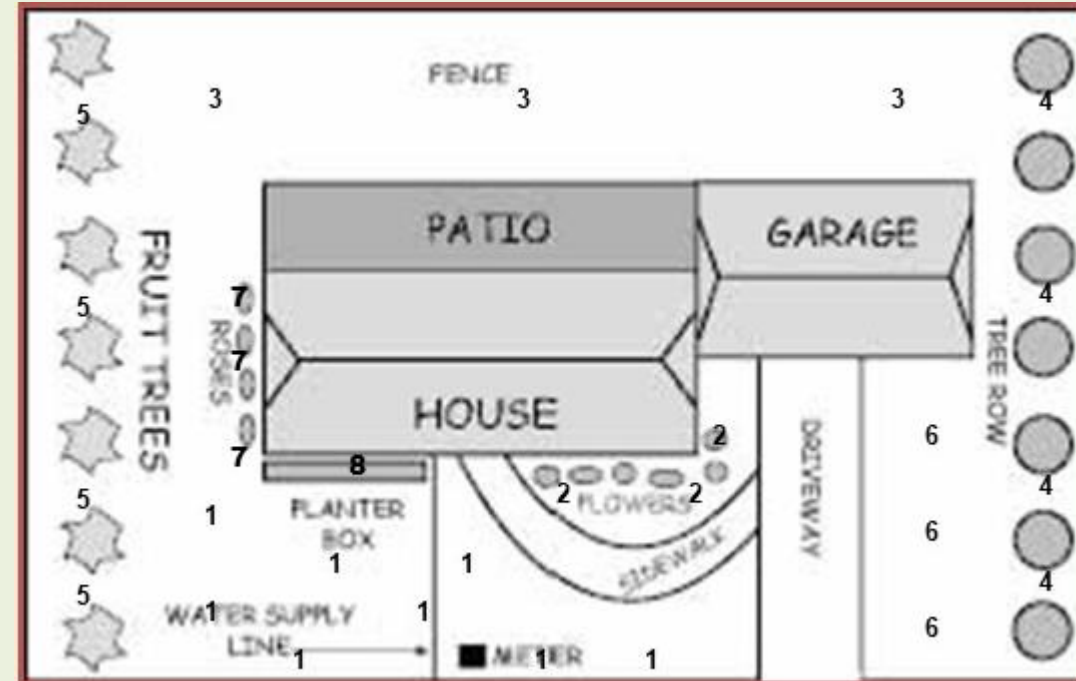


Know what
comes on
and where

Managing Your Sprinklers

Hydrozones

- Distinct zones within your landscape
- Plants with similar water needs
- Uniform/compatible irrigation equipment



Managing Your Sprinklers

- Check ups – Watch them run
 - Head-to-Head coverage
 - Broken risers
 - Leaking seals
 - Misdirected spray
 - Plugged/Broken nozzles
 - Low head drainage
 - Blocked spray
 - Tilted heads
 - Too deep/high
 - Mismatched equipment
 - High or low pressure
 - Hydrozones



Managing Your Sprinklers

- Repairs
 - Repair quickly
 - Repair correctly
 - Avoid collateral damage
 - Avoid high water bills
 - Avoid wasted water
 - Get help if necessary



Getting Help

- **Get Competent Help!**
- CLCA contractor search
 - clca.org
- Ecolandscape California
 - ecolandscape.org
- Rescape California
 - rescapeca.org



| Station No. | Location | Station Run Time | | | |
|-------------|---------------------------------------|------------------|--------|---------|--------|
| | | PGM A | PGM B | PGM C | PGM D |
| 1 | Front yard turf, Pop-up | 3 min | 0 | 0 | 0 |
| 2 | Back yard turf, Impact rotors | 10 min | 0 | 0 | 0 |
| 3 | Back patio shrubs, Drip | 0 | 45 min | 0 | 0 |
| 4 | Back fenceline shrubs, Drip | 0 | 45 min | 0 | 0 |
| 5 | Front/side yard/driveway turf, Pop-up | 3 min | 0 | 0 | 0 |
| 6 | Back yard trees, Drip | 0 | 0 | 1.5 hrs | 0 |
| 7 | Vegetable garden, Drip | 0 | 0 | 0 | 45 min |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |

So what's a sprinkler system?



System Components



Technology Evolves ?

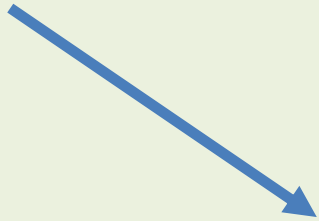
1980 +/-



2022



Electronics



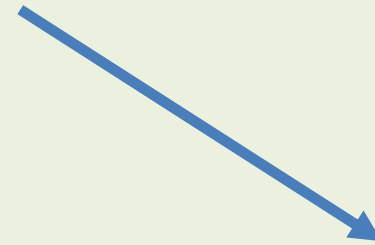
1950 +/-



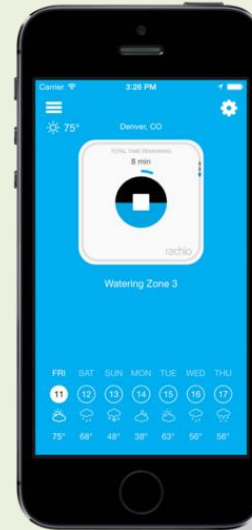
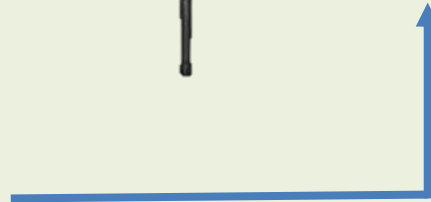
2022



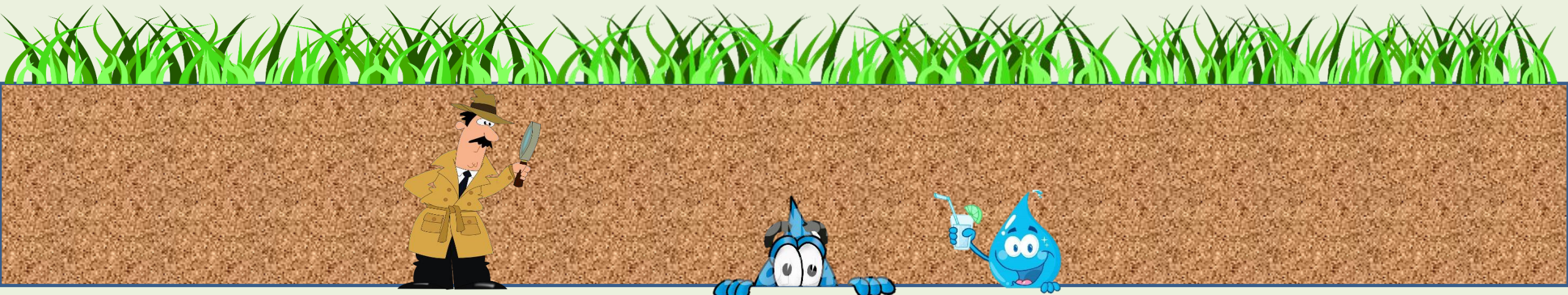
Irrigation



Irrigation Controllers



Soil Moisture Sensors



Rain Shut-Offs



Wired



Wireless



Sprinkler Heads

Impact Driven
Rotary Sprinklers



Upgrade to

Gear Driven
Rotary Sprinklers



Sprinkler Heads

Upgrade your lawn sprinklers



From Misting Spray Nozzles



To Rotary Nozzles



Just change the nozzles



Drip Systems

Converting spray to drip

Must have a filter and pressure reducer



Drip Systems

(old school)

I'm helping!



This will eventually become this

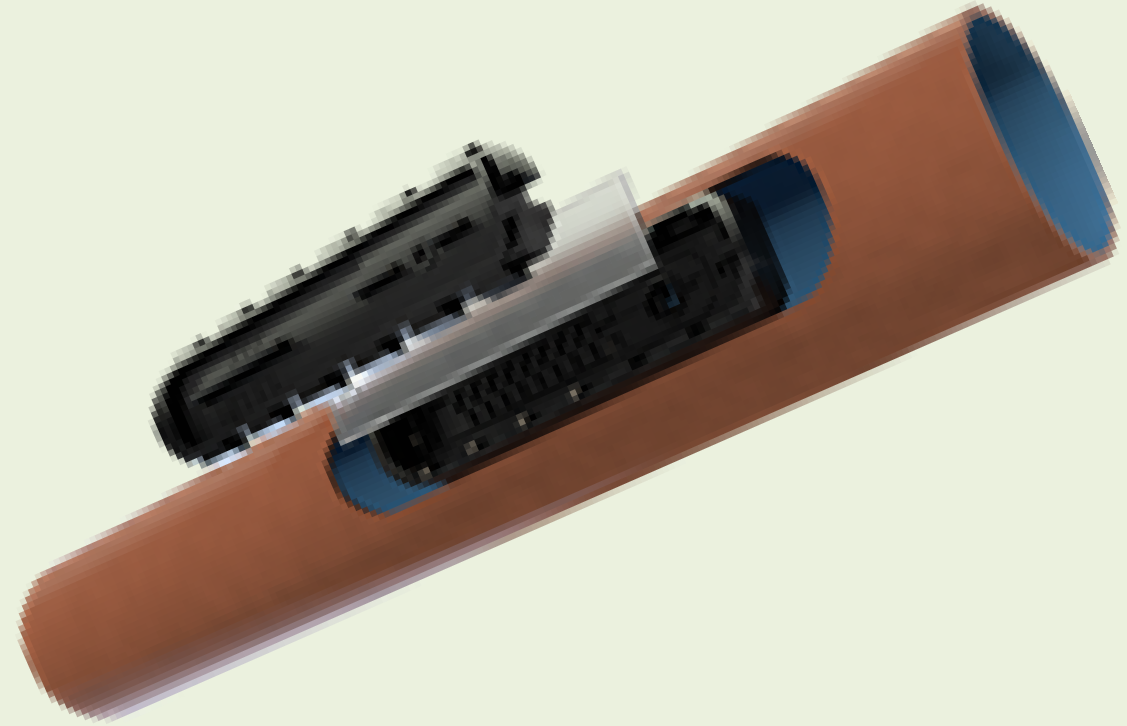


It wasn't me

Drip Systems

(Today's Technology)

In-line Drip Emitters









06/02/2012



06/02/2012

Second Growing Season



Drip Tips

Don't Overload the system

Flow rate calculation

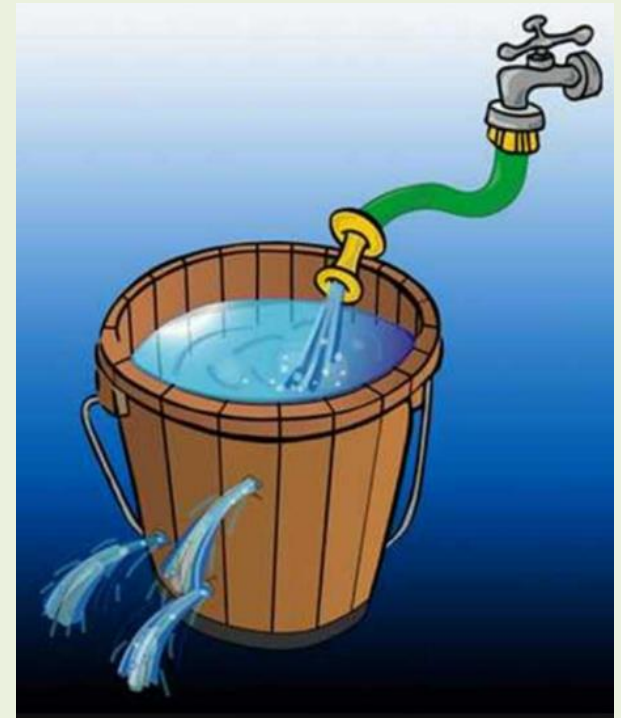
Time how long to fill a bucket - 2 minutes for a 5 gallon bucket

Calculate gallons per hour (gph)

$$\frac{5 \text{ gal}}{\cancel{2 \text{ min}}} \times \frac{\cancel{60 \text{ min}}}{1 \text{ hr}} = 150 \text{ gph}$$

How many 1 gph emitters? 150

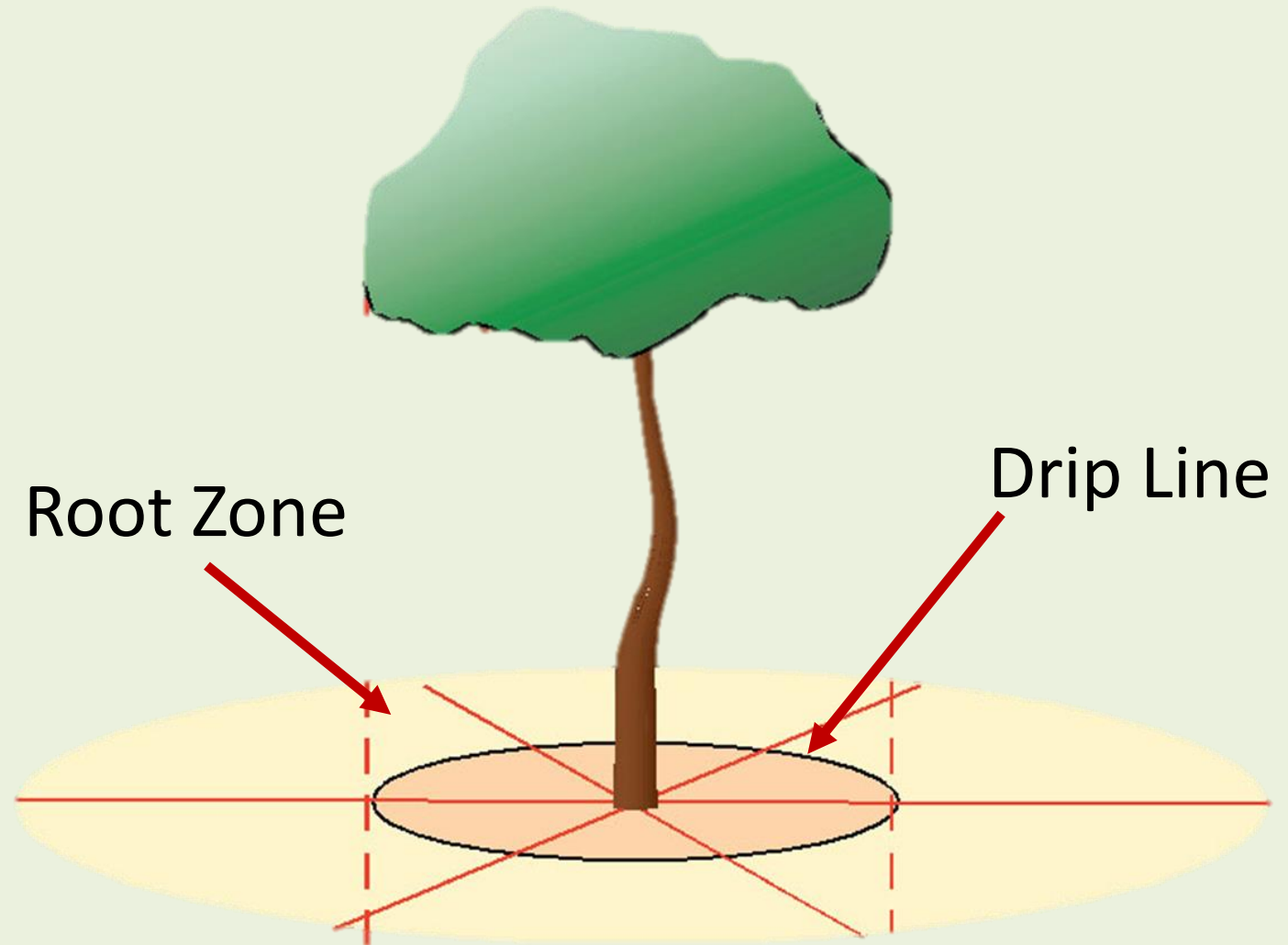
How many 1/2 gph emitters? 300



Drip Tips

Trees / Shrubs

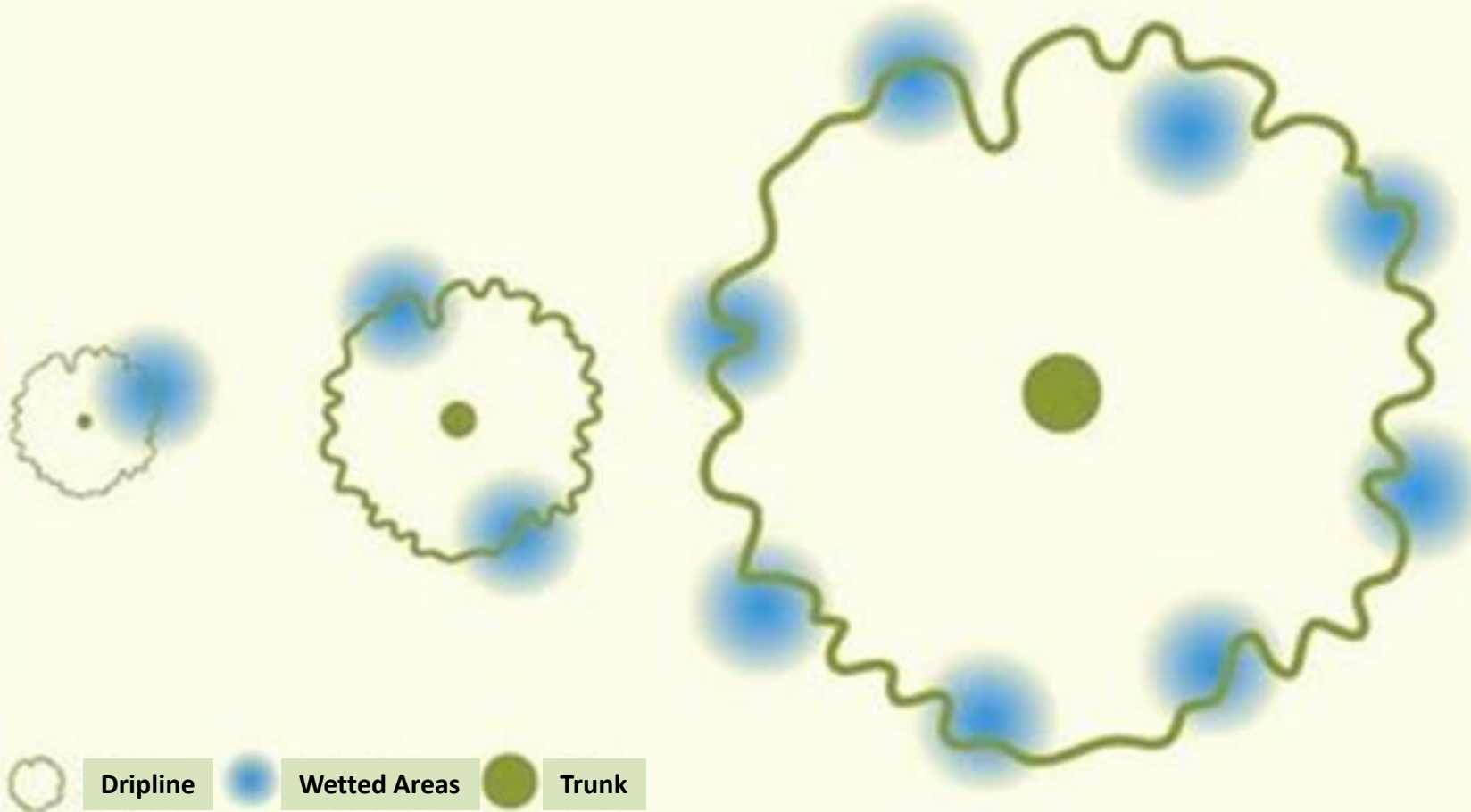
Water the roots
NOT
the trunk



Drip Tips

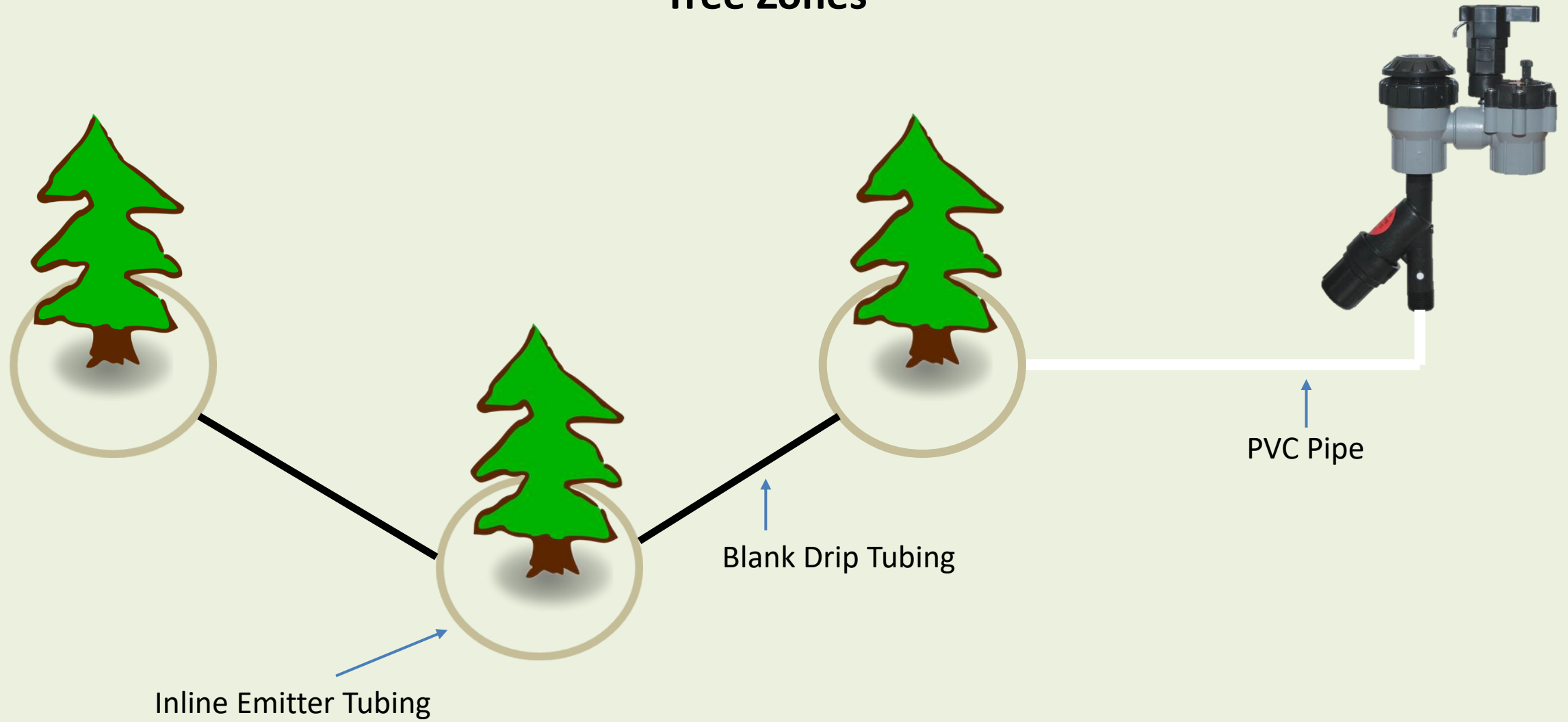
Emitter Placement

Place Emitters Along a Plants Dripline



Drip Tips

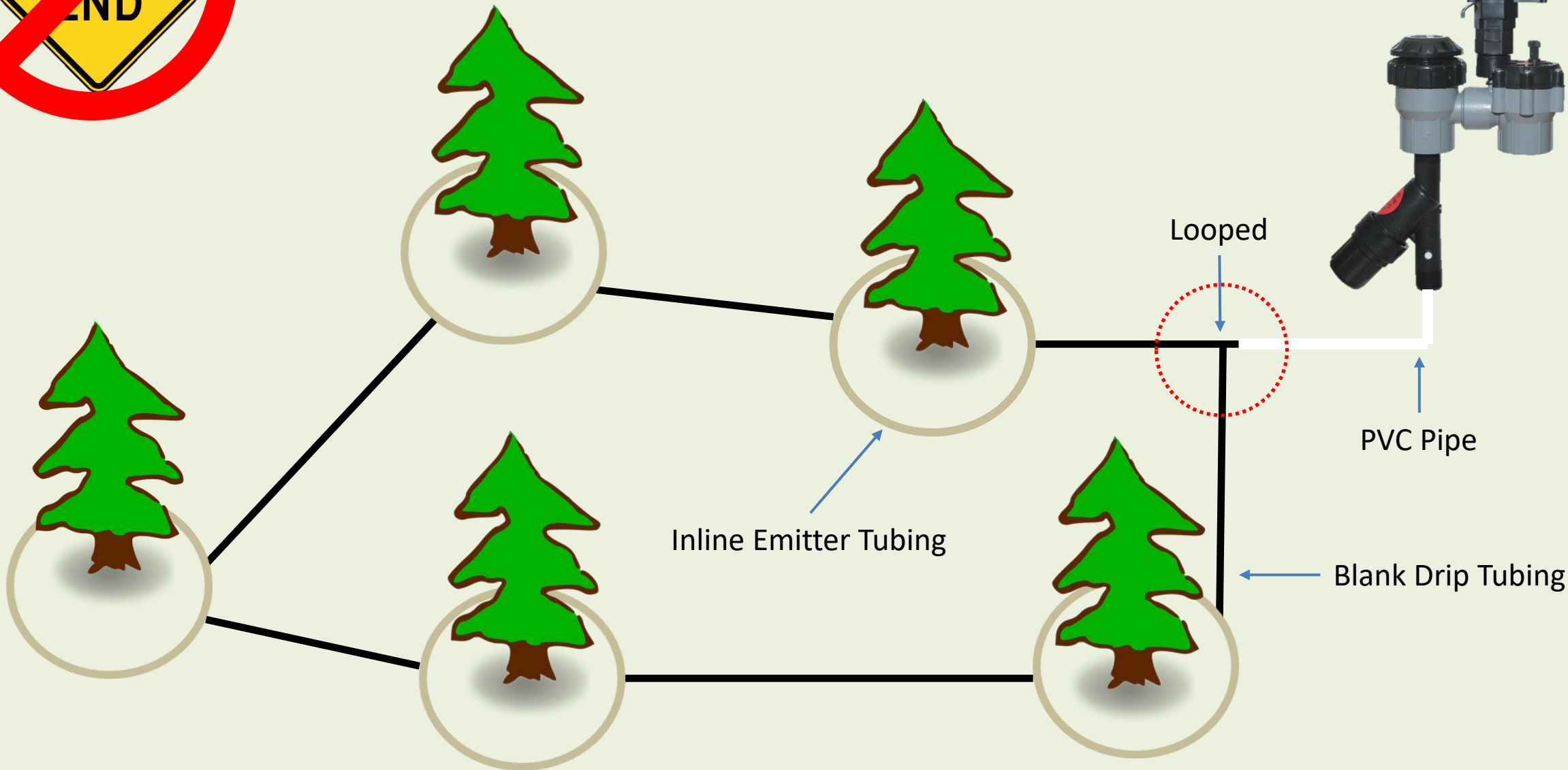
Tree Zones





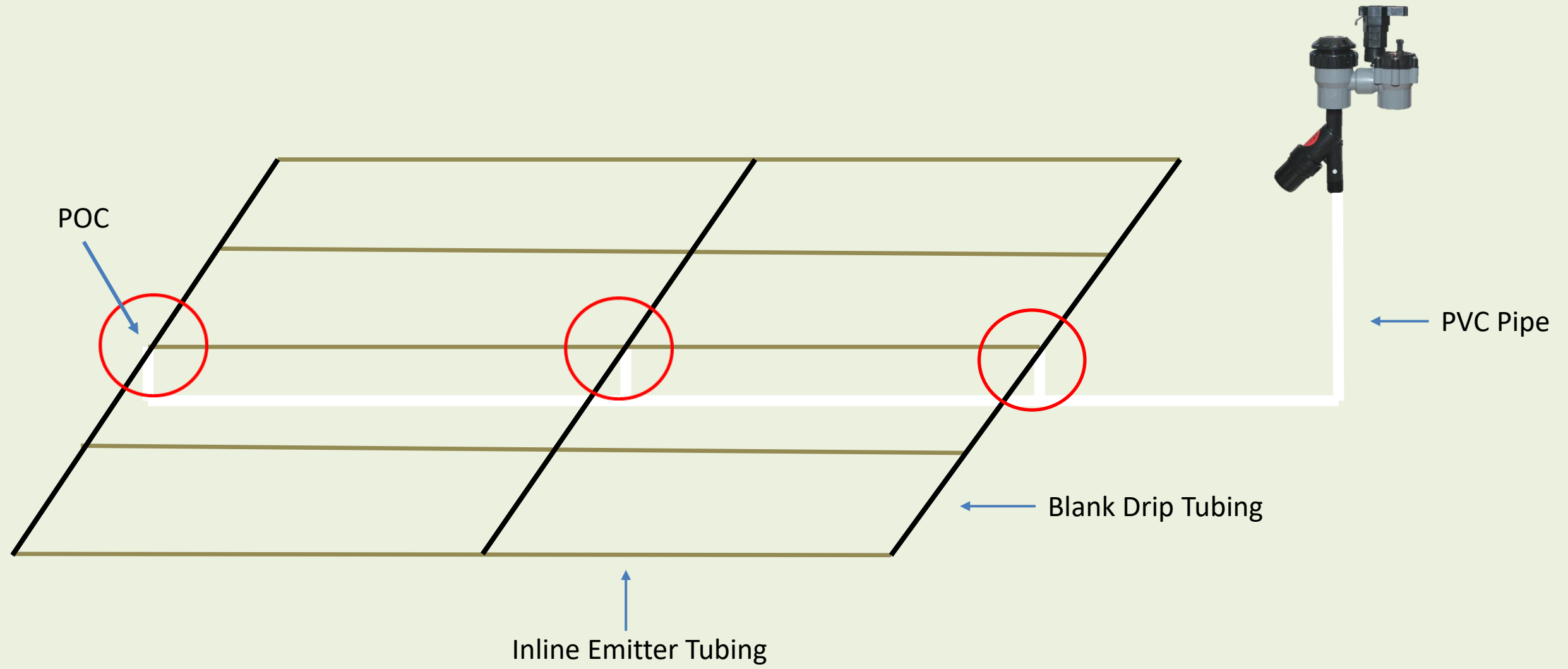
Drip Tips

Avoid Dead Ends



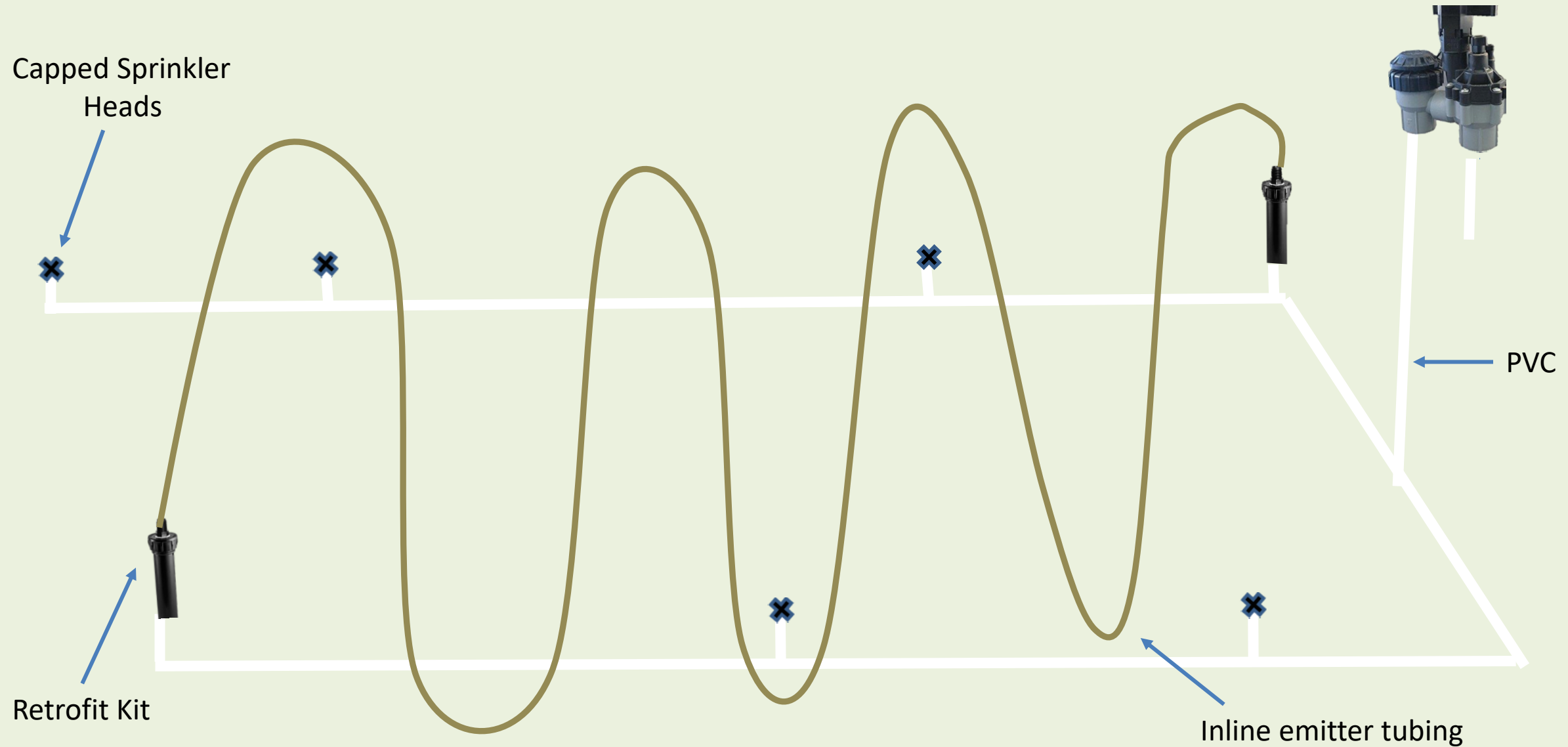
Drip Tips

Densely Planted Areas



Drip Tips

Retrofitting an existing spray system



Drip Tips

Don't be afraid to try something new

- There's no absolute one right way to do drip
- Ask 3 experts - get 5 opinions
- Don't be afraid of trial and error
 - Plastic's cheap!



Summing It All Up

- It's not how long, it's how well you water
- Don't water moist soil
- Run-off = too much water
- Know your system
- Periodically check your system
- Find and use newer, better, and more efficient equipment
- AND... never be afraid to try!

It will never be this bad





That's all Folks!