TAKE CONTROL
HOW TO USE A STANDARD IRRIGATION CONTROLLER

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STORY
OBJECTIVES

1. WHEN TO USE MULTIPLE PROGRAMS
2. WHEN TO USE MULTIPLE START TIMES
3. WHAT IS RAIN DELAY? A RAIN SENSOR?
4. HOW TO USE SEASONAL ADJUST
5. WHEN TO REDUCE RUNTIMES
PURPOSE FOR CONTROLLERS

• GIVE PLANTS WATER WHEN NOT RAINING
• CHOICE IN WHEN & HOW OFTEN TO WATER
• HELP IMPROVE SUCCESS
  • Aesthetics, food & less effort
BEFORE YOU TOUCH THE CONTROLLER …

1. KNOW HOW MUCH WATER PLANTS NEED

<table>
<thead>
<tr>
<th>PLAN TYPE</th>
<th>RESOURCES</th>
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<tbody>
<tr>
<td>SHRUBS</td>
<td>WESTERN GARDEN BOOK</td>
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<tr>
<td>GROUNDCOVER</td>
<td>WSU EXTENSION MASTER GARDENERS</td>
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<tr>
<td>TURF</td>
<td>MANY BOOKS ON NATIVE PLANTS OF PNW</td>
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<td>TREES</td>
<td>GREATPLANTPICKS.ORG</td>
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<td>NATIVE PLANTS</td>
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<tr>
<td>ADAPTED PLANTS</td>
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WHAT INFLUENCES PLANT THIRST?

- SOIL TEXTURE
- PLANT PHYSIOLOGY
- SUN EXPOSURE
- COMPETITION
TYPES OF IRRIGATION CONTROLLERS

[Images of different types of irrigation controllers]
STANDARD IRRIGATION CONTROLLER

- **Water Budget/Seasonal Adjust** – 100% Per Program
- **Time and Calendar**
- **Start Times Per Program**
- **Rain Sensor - Where is it?**
- **Days of Operation Per Program**
- **Station Runtimes Per Program**
- **Programs A, B, C, and D**
1. PROGRAMS = HOW OFTEN TO IRRIGATE

- NOT ALL PLANTS NEED THE SAME AMOUNT OF WATER
  - High vs. low maintenance
  - Short vs. deep roots
  - Right vs. wrong microclimate
  - Adapted vs. non-adapted plants
CONTROLLER SETTINGS - PROGRAMS

GUESS HOW OFTEN ...
CONTROLLER SETTINGS - PROGRAMS

GUESS HOW OFTEN ...

Fragaria chiloensis – Coastal Strawberry
3 ELEMENTS OF CONTROLLER PROGRAMS

1. FREQUENCY

2. START TIMES

3. RUNTIMES
3 PROGRAMS ON CONTROLLERS

1. PROGRAM A = WATERS 3+ DAYS/WK.

2. PROGRAM B = WATERS 1-2 DAYS/WK.

3. PROGRAM C = WATERS 1 TIME EVERY 2 WEEKS OR LESS
CONTROLLER START TIMES

TYPICAL START TIMES
- 1 - 3
- 4+ ON LARGER CONTROLLERS

WHY?
- TURF ESTABLISHMENT
- LOW INFILTRATION/PRECIPITATION RATES, SLOPES
CONTROLLER START TIMES

Infiltration Rate vs Precipitation Rate

Infiltration Rate
(Soil Type)
- SANDY
- LOAMY
- CLAY

Precipitation Rate
1" per hour

Start
8 minutes 10 minutes 18 minutes 20 minutes
Maximum Irrigation Time for Clay
Maximum Irrigation Time for Loam

Note: Sample Data Only; Does NOT Account for Influence of Thatch, Compaction or Slope

Taken from Landscape Water Management Principles, The Irrigation Training and Research Center, 2004, pg. 19
RAIN DELAY VS. SENSOR

RAIN DELAY
• MANUAL ON/OFF

RAIN SENSOR
• AUTOMATIC DELAY
4 THINGS TO KNOW ABOUT RAIN SENSORS

1. WIRELESS
2. WIRED
3. INSTALLATION LOCATION
4. TESTING & MAINTENANCE
3 STEPS TO USING THE SEASONAL ADJUST/WATER BUDGET FEATURE

- A PERCENTAGE (%) 
- BASED ON WATER LOSS

1. SET RUNTIMES FOR THE HOTTEST TIME OF YEAR
2. FIND THE IRRIGATION INDEX (WWW.IWMS.ORG)
3. ADJUST SEASONAL ADJUST/WATER BUDGET
REGARDING RUNTIMES …

GUIDELINE:

• ESTIMATE RUNTIMES USING TOOLS ON WWW.IWMS.ORG
HAND'S ON TIME – 20 TO 30 MINUTES

TO BE CONTINUED ...
LESSONS LEARNED?
REDUCE RUNTIMES

1. WHEN USING ESTABLISHED PLANTS
   • Plant during Fall to take advantage of rain

2. WHEN USING NATIVE PLANTS
   • Proper planting
   • Expectations

3. WHEN IN DOUBT ...
   • Reduce runtimes by 2 min.
   • Allow a small amount of stress to plants in healthy soil
     ➢ Can cause roots to grow deeper
REMINDER

• SPOTTY PLANT STRESS AREAS MAY BE FROM UNEVEN DISTRIBUTION OF WATER, NOT BY LACK OF WATER OR LOW RUNTIMES
QUESTIONS?

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WINTER WORKSHOP 2015

Thank you for participating!

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Turn in evaluation surveys