This presentation premiered at WaterSmart Innovations

watersmartinnovations.com
Irrifluenza

Chris Willig
Waterfluence
with
Dr. Aqua Sprinky
Landscape Pox?
“The Site Call”
Responses to Infection

![Graph showing water use over time]
Irrifluenza

What is it?

A Disease-like Concept Useful for Understanding Landscape Irrigation System Problems and Excessive Water Use
Irrifluenza refers to the virus-like nature of some irrigation problems.

Like a complex organism, an irrigation system comprises many interrelated parts and systems.

One component’s failure or out-of-spec operation can reduce overall system performance and cause other problems to occur.
Disease Concept

- A single problem sprinkler can “infect” an entire system, spreading from head to head and station to station as the irrigator applies more water to make up for degrading landscape appearance.
Symptoms
Points of Infection
Minor Details?
Dr. Sprinky says, ...
“I can change my nozzle but your sprinklers can't ...”

1) Operate them at the correct pressure.
2) With the proper nozzle.
3) Standing up tall.
4) With an aligned spray pattern ...
5) ... that clears surrounding plants.
How sick?

Summary of Observations

<table>
<thead>
<tr>
<th>Sprinkler Heads Observed (Sample Area)</th>
<th>164,858</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective sprinklers</td>
<td>94,600</td>
</tr>
<tr>
<td>Ineffective sprinklers</td>
<td>70,258</td>
</tr>
</tbody>
</table>

Corrective Actions for Ineffective Sprinklers

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuneup</td>
<td>Adjust spray pattern radius and arc, clean or replace nozzle, repair minor leaks, plumb and set to grade.</td>
<td>35%</td>
</tr>
<tr>
<td>Renovation</td>
<td>Remove and replace with operating sprinkler.</td>
<td>7%</td>
</tr>
</tbody>
</table>
Numeric Data
Pressure!

Low Pressure causes:
- High precipitation rates
- Low uniformity
- Poor sealing
- Valve problems
- Mostly rotor sprinklers

High Pressure causes:
- Mist
- Water hammer
- Sprinkler damage
- Poor coverage or uniformity
- Mostly spray sprinklers
5 Stages of coping with Irrifluenza

- Denial
- Anger
- Bargaining
- Depression
- Acceptance and Hope
The Holistic Cure

- Only affected through the systematic and thorough application of irrigation knowledge from organizational top to bottom.

- Accurate metrics and measurement.

- Reinforcement for good behavior.
“Life style changes”

- Organizational acceptance
- Training
- Checklists
- Monthly THOROUGH inspections
- Questions and more questions
First Aid Kit

- Fix leaks
- Correct pressures (wholesale “adjustment”)
- Replace nozzles as needed
- Adjust new and old nozzles (retail “adjustment”)
More Effective Sprinklers