Water-Efficient Irrigation Technologies: Florida, North Carolina, and Oklahoma extension programs

Water Conservation: half-empty or half-full?
Regional Webinar Series
Extension Efforts in Adopting Water Efficient Irrigation Technologies in North Carolina

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  • Mayank Nautiyal
  • Ihab Ghali
  • Bobby Vick
Program Costs and Funding

• Funding Sources
  • State (Extension Faculty, Turf CENTERE)
  • Grants
  • “Commodity” Groups
  • Workshops

• “Non-Traditional “funding”
  • Manufacturer and Dealer Contributions/Discounts/Sponsorships
Collaborations and Partnerships

• Municipalities
• Irrigation Dealers and Manufacturer Reps
• State Agencies
• Industry Groups
  • Green Industry
  • Irrigation Association and Affiliates
Challenges

- “Non-persistent” Drought
- Economic Incentive (lack)
- Differing objectives of Partners
- Funding
Example Collaboration – Town of Cary, NC

• Activities
  • Grant-funded study to introduce 2 smart irrigation technologies into Residences
  • Multiple Presentations to Town staff and citizens
  • Discussions and technical input to potential ordinances and municipal programs
Audits

Purpose
• Determine Application Uniformity
• Determine Application Rate
• Assess for Technology Adaptation

26 Audits
4 groups x 6 reps + 2 extra
SMS Installation
Mean monthly water applied by each group and the gross irrigation requirement

<table>
<thead>
<tr>
<th>Month</th>
<th>ED Group</th>
<th>ET Group</th>
<th>Control Group</th>
<th>SMS Group</th>
<th>Gross Irrigation Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>50</td>
<td>60</td>
<td>40</td>
<td>30</td>
<td>70</td>
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<tr>
<td>June</td>
<td>70</td>
<td>80</td>
<td>50</td>
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<td>July</td>
<td>90</td>
<td>100</td>
<td>60</td>
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<td>August</td>
<td>110</td>
<td>120</td>
<td>70</td>
<td>60</td>
<td>130</td>
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<tr>
<td>September</td>
<td>130</td>
<td>140</td>
<td>80</td>
<td>70</td>
<td>150</td>
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</tbody>
</table>
## Water use

<table>
<thead>
<tr>
<th>Group</th>
<th>Average depth of water applied per week (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET</td>
<td>21.3 B</td>
</tr>
<tr>
<td>Ed</td>
<td>22.9 BC</td>
</tr>
<tr>
<td>Control</td>
<td>26.7 C</td>
</tr>
<tr>
<td>SMS</td>
<td>15.0 A</td>
</tr>
</tbody>
</table>
Example Collaboration – NCICLB

• Irrigation Contractor Licensing Bill Implemented on June 30, 2009
  • 10 CEUs required per year

• Collaborators
  • Carolinas Irrigation Association (IA affiliate)
  • Green Industry Council and Partners
  • Irrigation Dealers
Trainings
Trainings

• Over 100 Irrigation Contractors trained in first 1.5 years of Certification Program (recertification hours)
• Hundreds trained through industry group conferences
Example Collaboration - Catawba-Wateree Water Management Group and Duke Energy
Survey (1,405 respondents/19,000 mailed)

Count of During the months you irrigate, how many days per week on average

No. of Days Irrigate per week

Number of Respondents

Number of Respondents

NR 1 2 3 4 7
Cooperator Installations

Toro Intellisense

Weathermatic Smartline
Thank You - Questions

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• Select “irrigation resource” from “topic-finder” drop-down box

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