Regulatory Precipitation Rate Limits

Water Saver or Waster?

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The Intelligent Use of Water.™
Do You Like Chocolate?

- Tastes Great!
- Easy to Find
- Makes Me Happy
- Inexpensive
Chocolate For Every Meal?

- Doesn’t taste THAT great!
- Makes me sick now.
- Makes me fatter.
- I hate Chocolate!
What is Precipitation Rate?

- \( PR = \frac{\text{GPM} \times 96.3}{\text{Head Spacing} \times \text{Row Spacing}} \)

- Rate at which irrigation applies water to the landscape
Is Low PR Good or Bad?

- That is not the Question!
- Good Sometimes
- Not Good Others
- Real Question:
  All the Time
  Or Not?
What Is ‘Good’ About It? (Regulator POV)

- More Closely Matches the Soak-In Rate
- Reduces Runoff
- Easier to Inspect/Plan Check
- Forces the “Right” Behavior
What Is Not Good? (Real World POV)

- **University of Arizona**
  - Wind Drift & Evaporation Losses

- **California State Polytechnic University - Pomona**
  - 2/3 of Total Losses
  - No Runoff With Cycle+Soak
Should Low Precipitation Rate be Required … At All Times?

- Some Regulators Want This!
- Believe It Saves Water!
- Don’t See the Potential Water Losses
Does It Save Water?
Show Me The Science!

- California State Polytechnic University – Pomona
  – 2/3 of Loss = Wind Drift & Evaporation;
  – No Run-off with Cycle+Soak Programming

- Eugene Water and Electric Board
  – No Savings

- Inland Empire Utilities Agency
  – 2% Greater Water Use

- Municipal Water District of Orange County
  – 10% Savings

- Southern Nevada Water Authority
  – No Savings

- University of Arizona
  – 12% More Wind Drift & Evaporation Loss With Low PR
Conclusions

- Reduces Some Runoff
- Can be Wasteful
- Does Not Reduce Water Use
- MSMT May Mitigate Some Losses
- Don’t Ban More Efficient Products
Conclusions

- Like Chocolate, Low PRs Are Good in Moderation
- Low PRs Should Not Be Required by Law
- Industry Should Oppose PR Limit Regulation
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