

# Irrigation Management: An Agronomist's Perspective

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Photo courtesy of Texas Agrilife Extension Service

# General Thoughts on Irrigation

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- Irrigation is one of the best tools that we have yet it is the least well understood
- Water for irrigation is becoming an increasingly precious resource
  - San Joaquin Valley
- We must become better stewards of this resource

# Typical Irrigation Questions

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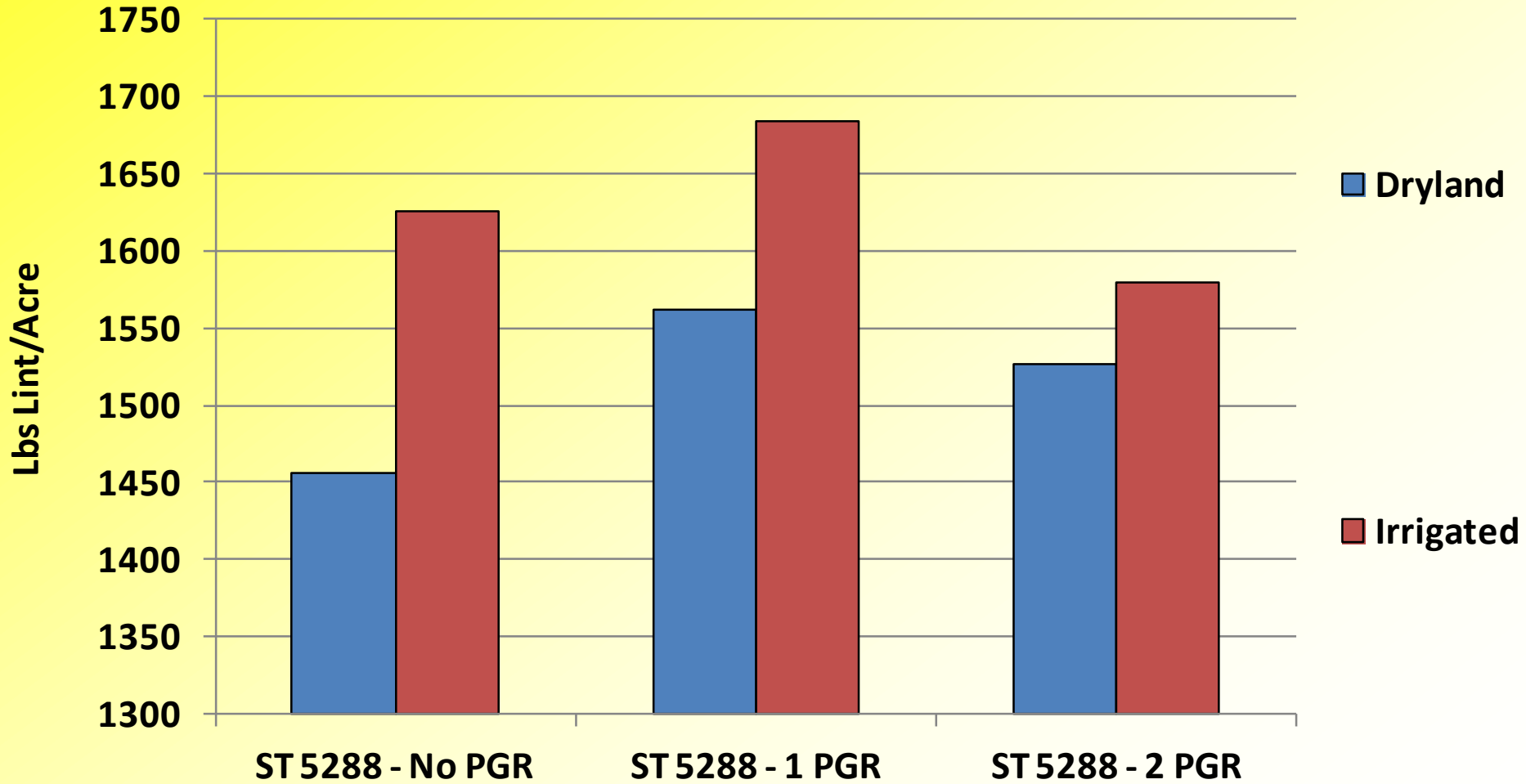
- **When can I stop irrigating?**
  - Growth stage
  - Depends on your irrigation system
  - Soil texture
- **When should I start irrigating?**
  - Depends
  - When irrigation usually starts
- **How long should I wait between irrigations?**

# Transitioning to Irrigation

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- **Variety selection**
- **Management of vegetative growth**
- **Insect management**
  - **Plant bugs**
  - **Stink bugs**

# Yield

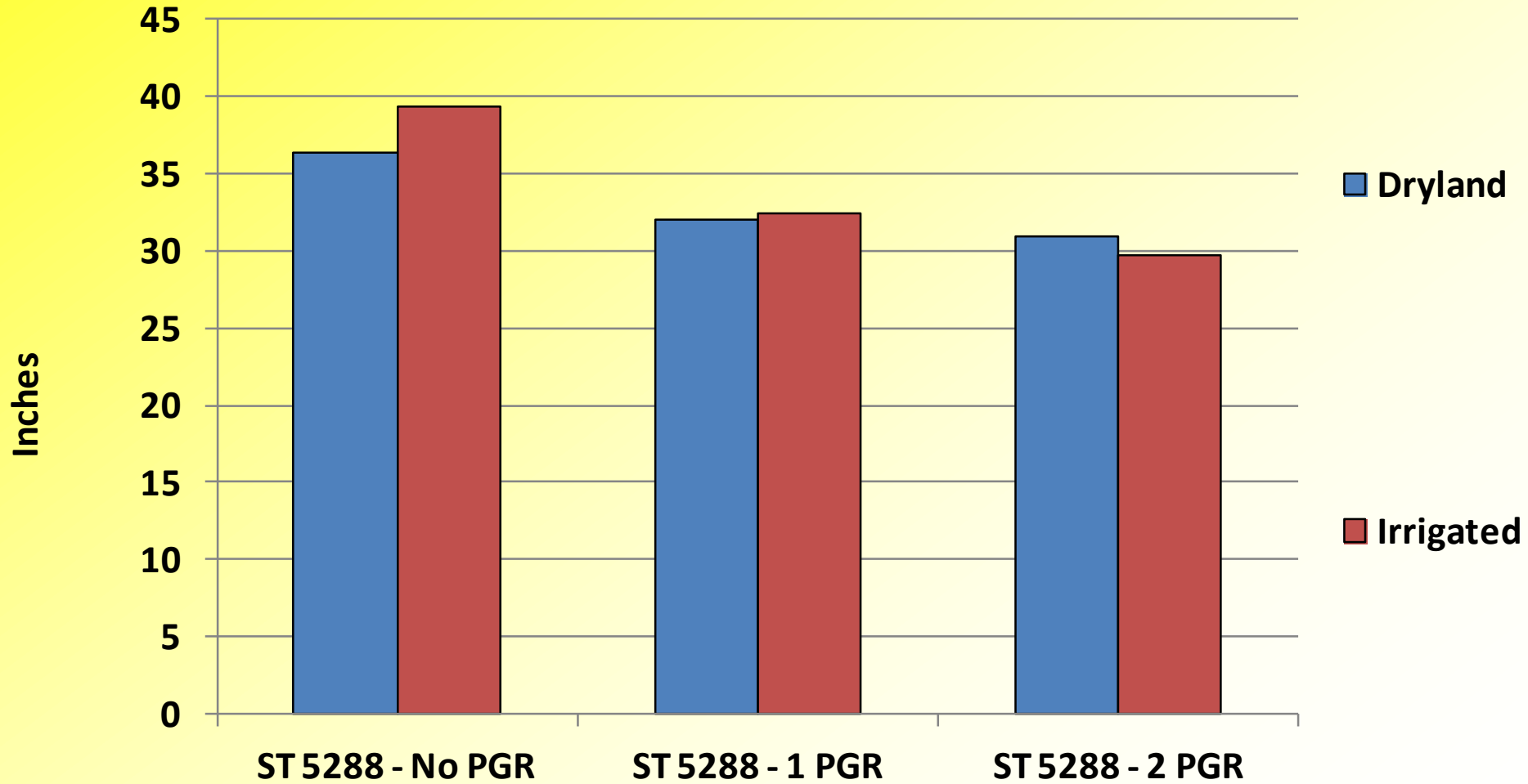


# Transitioning to Irrigation

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# Plant Height



# Transitioning to Irrigation

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# Irrigation Advantages

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- **Potential for increased crop production**
- **Increased land value**
- **Herbicide activation**
- **Fertigation**

# On-Farm Experiments

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- **Interest in improving irrigation management**
- **Decagon and Watermark soil moisture sensors installed at Bush Farms near Money, MS**
  - **Equipped with wireless communication**
- **Evaluate the effectiveness of soil moisture sensors for scheduling irrigation**
  - **Ease of use**
  - **Yield**
  - **Water savings**

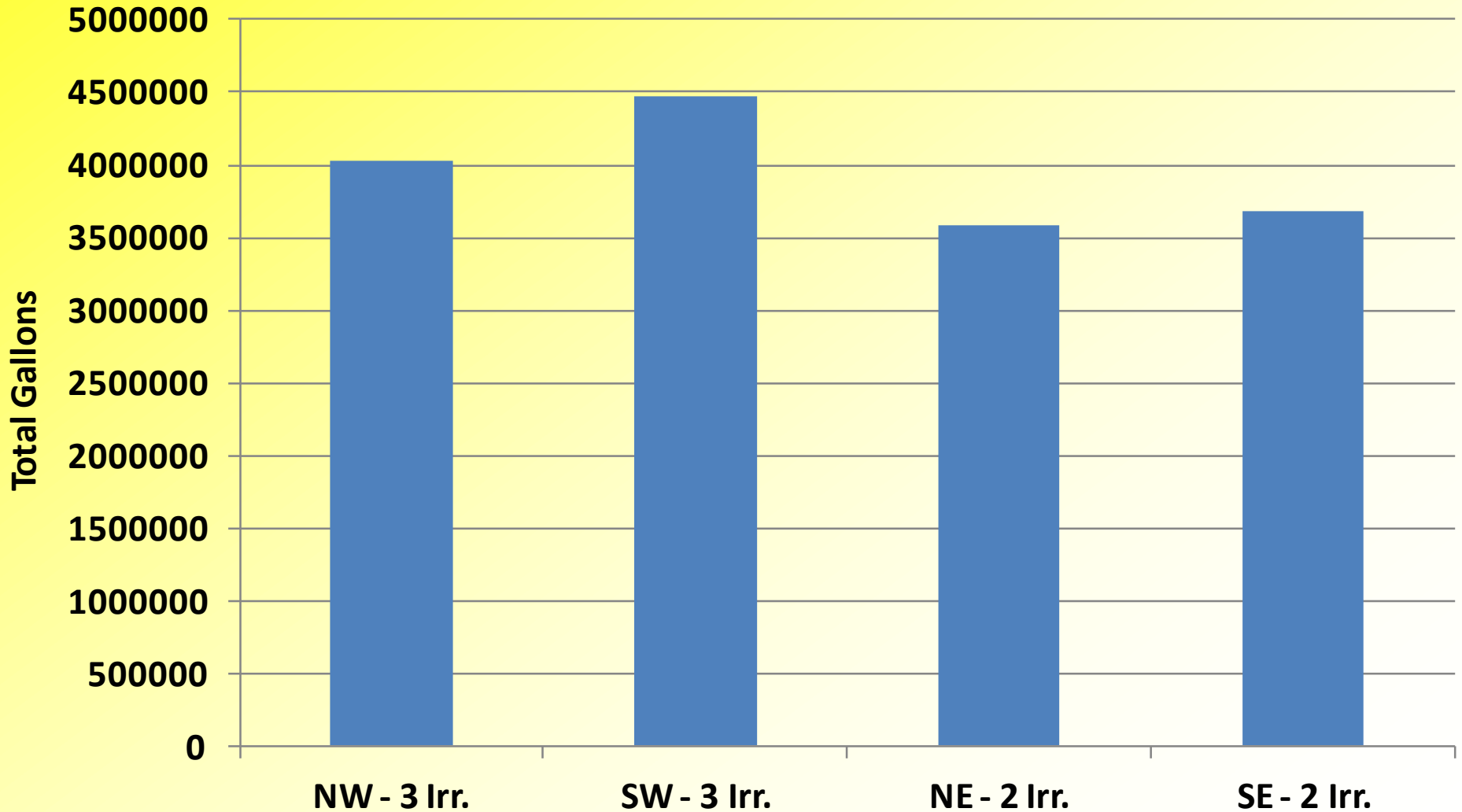
# Bush Farms – Money, MS



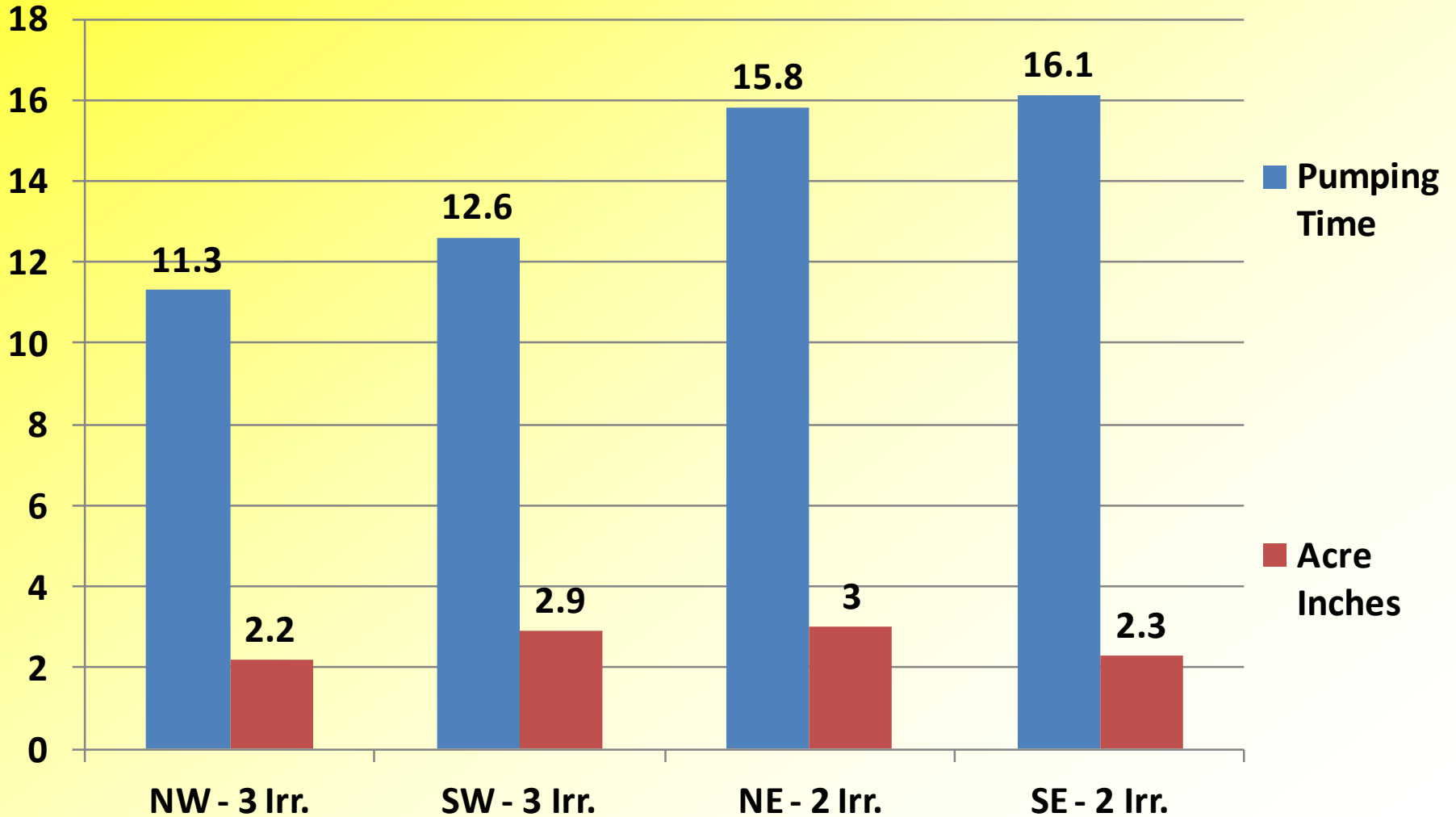
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Google earth

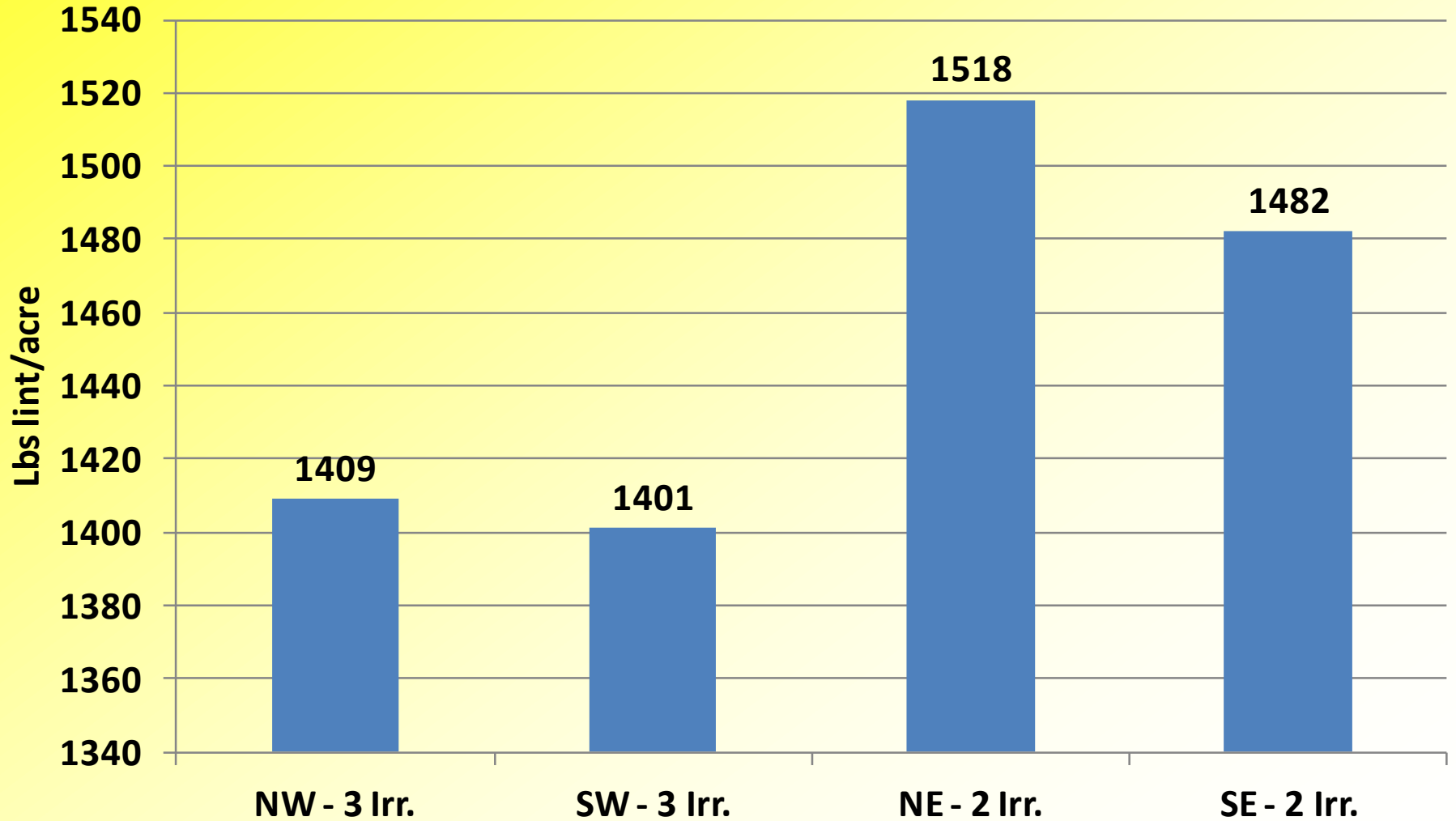
# Total Water Used



# Water Utilization



# Yield



# Lessons Learned

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- **We must continue to fine tune our production systems**
  - Intervals between watering?
- **We can produce high yields with less water**
  - Where is the edge?
- **Using sensors without wireless communications – PITA**

# Using Moisture Sensors

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- **Sensor installation requires time and technique**
  - How many sensors are required for accurate scheduling?
  - Must be done each year
- **The ability to view data from office improves efficiency**
- **Education is needed regarding values provided by sensors**



# Thank You

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- Cotton Incorporated
- Lyle Pringle
- Jerry Singleton
  
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