How have Drought Conditions Influences Irrigation Water Demand

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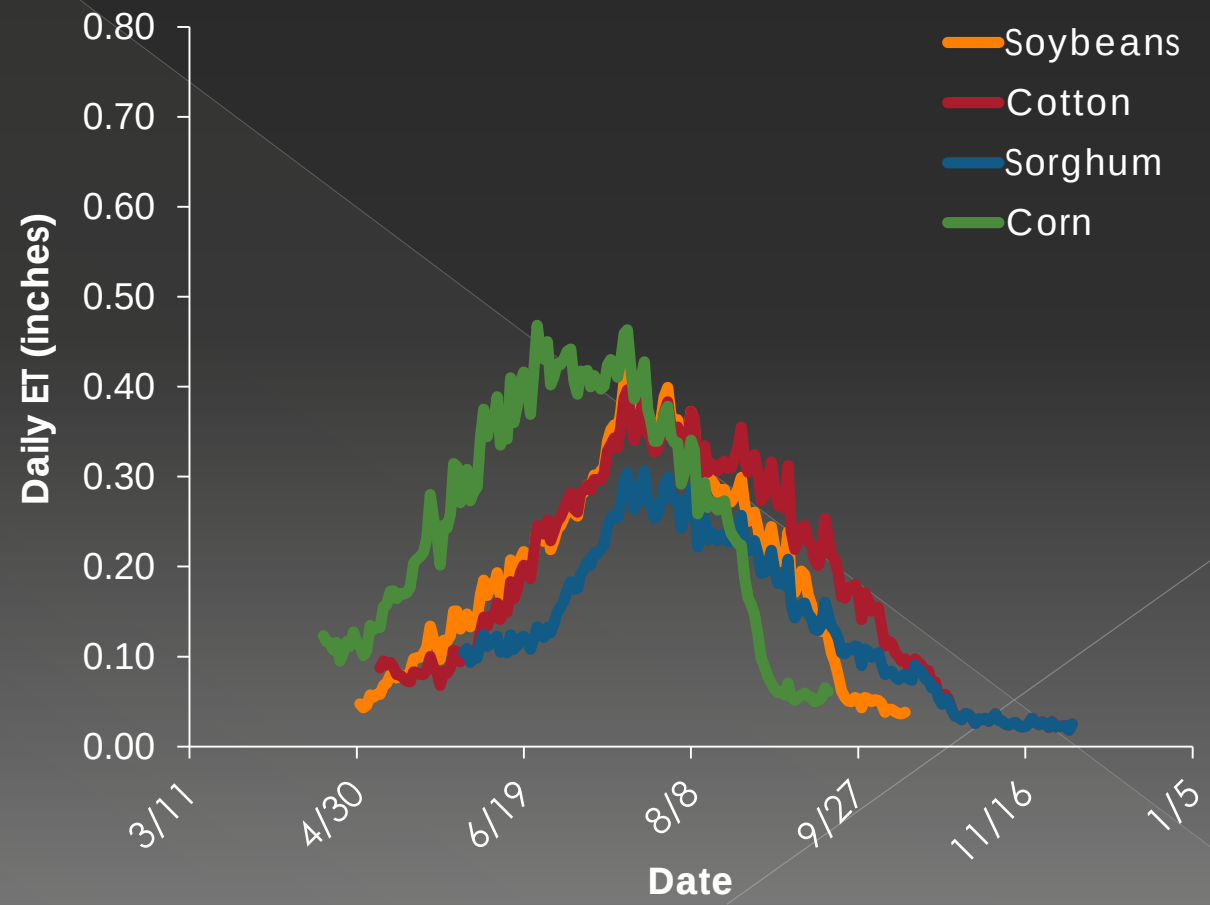
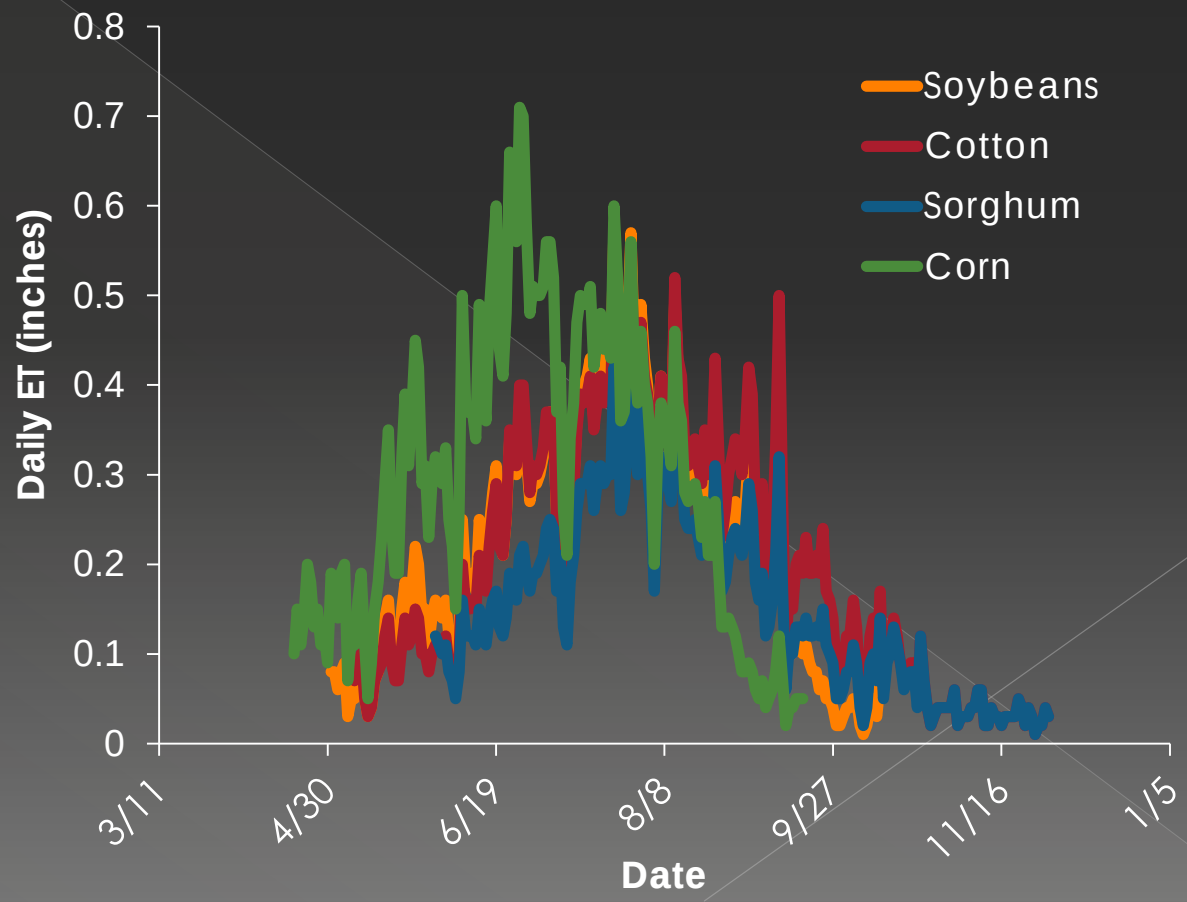
Mesonet Data (Past 15 years)

- Irrigation scheduler :
  - Evapotranspiration
  - Rainfall
  - Calculated water deficient

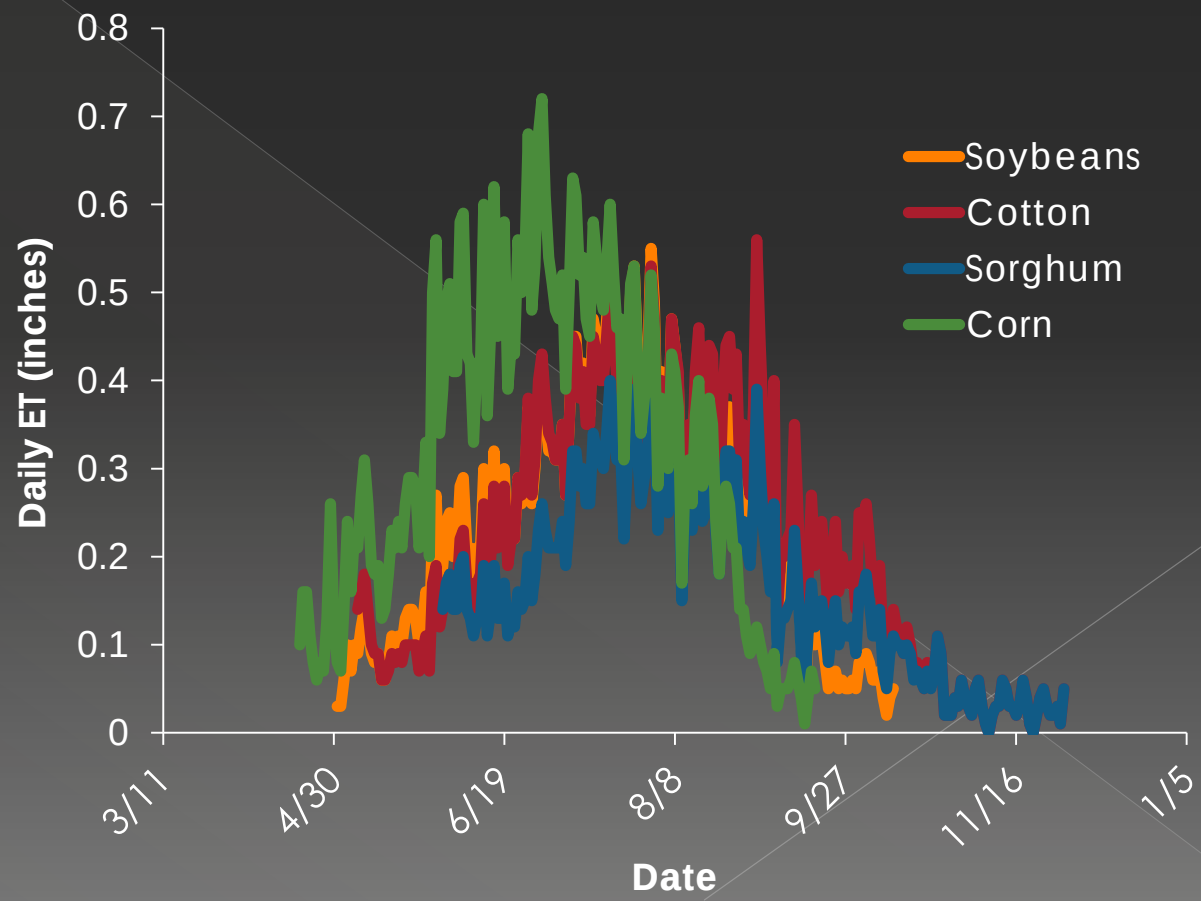
15 year Average Daily Evapotranspiration (Goodwell)



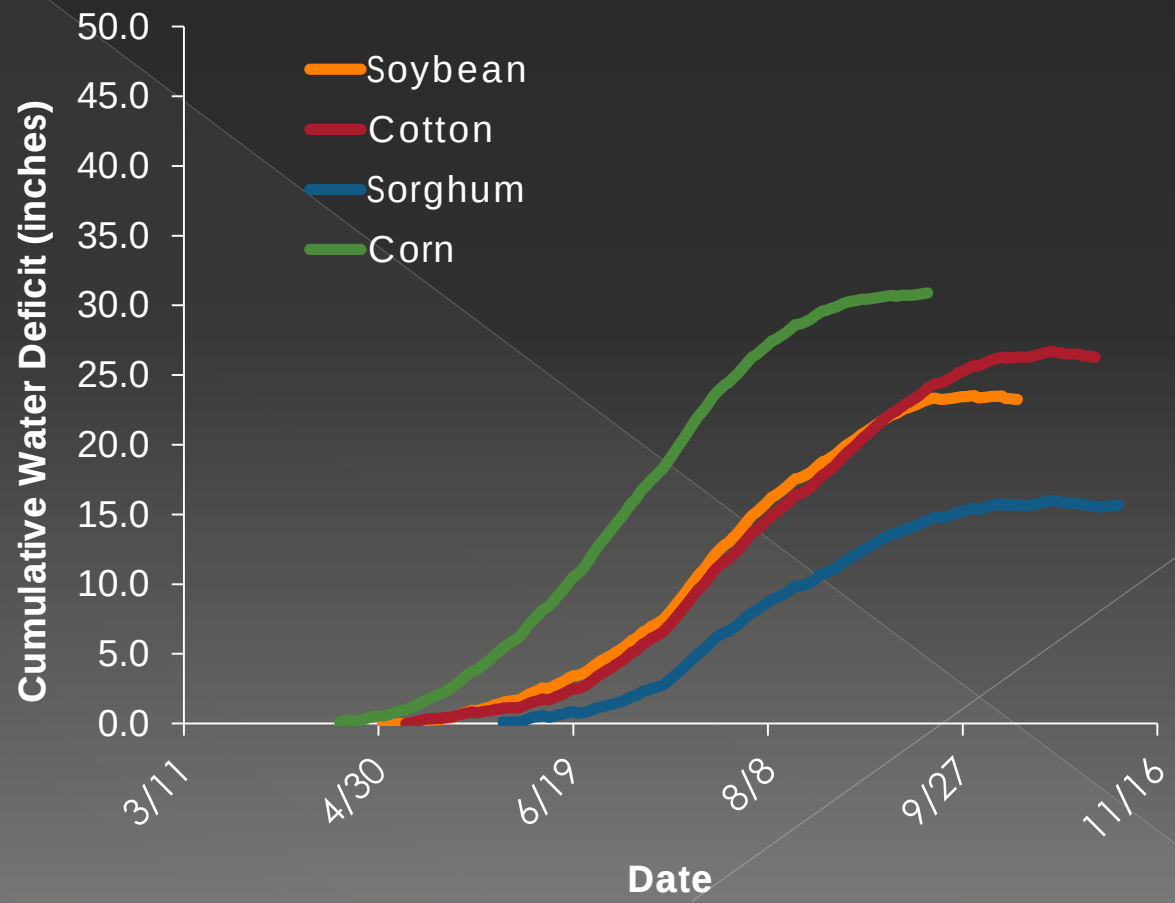
2012 Daily Evapotranspiration (Goodwell)



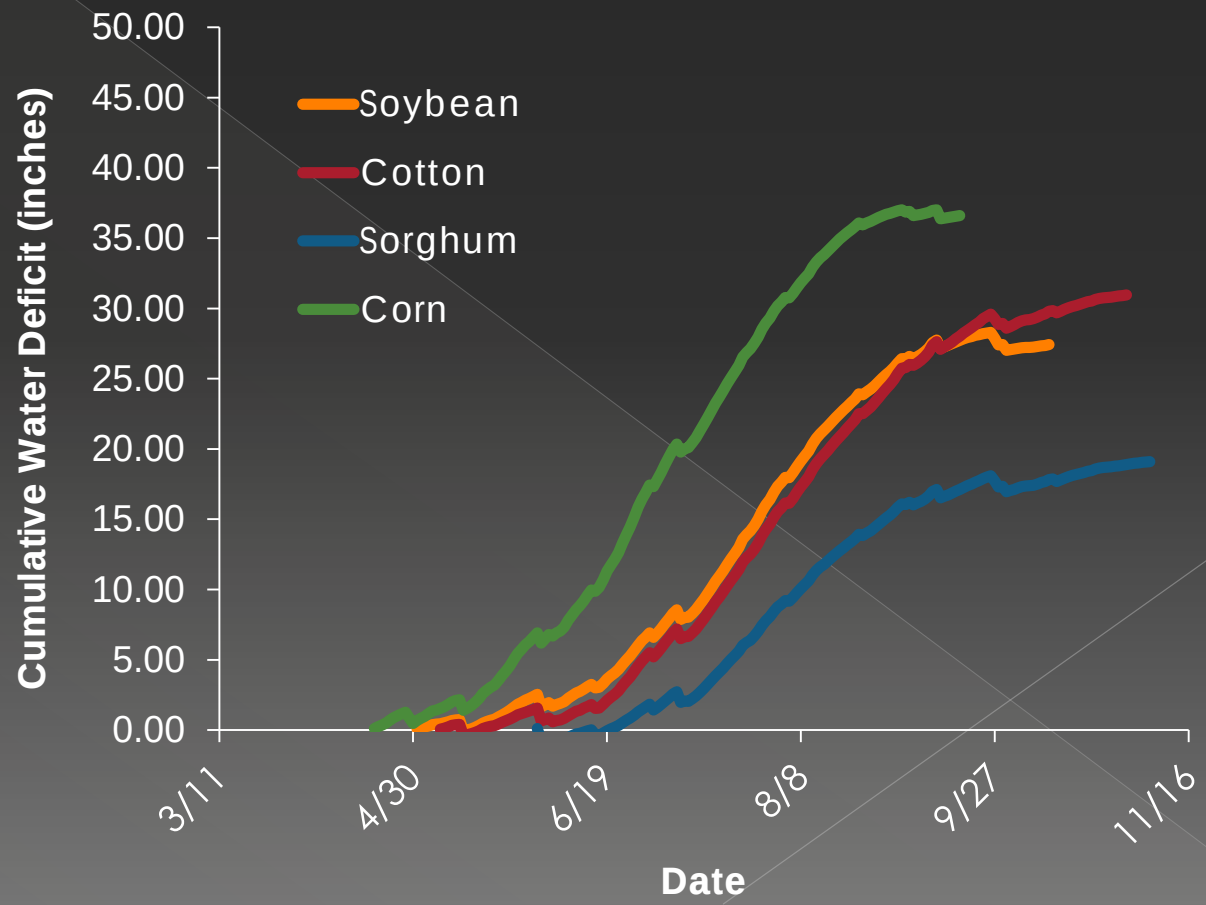
2011 Daily Evapotranspiration (Goodwell)



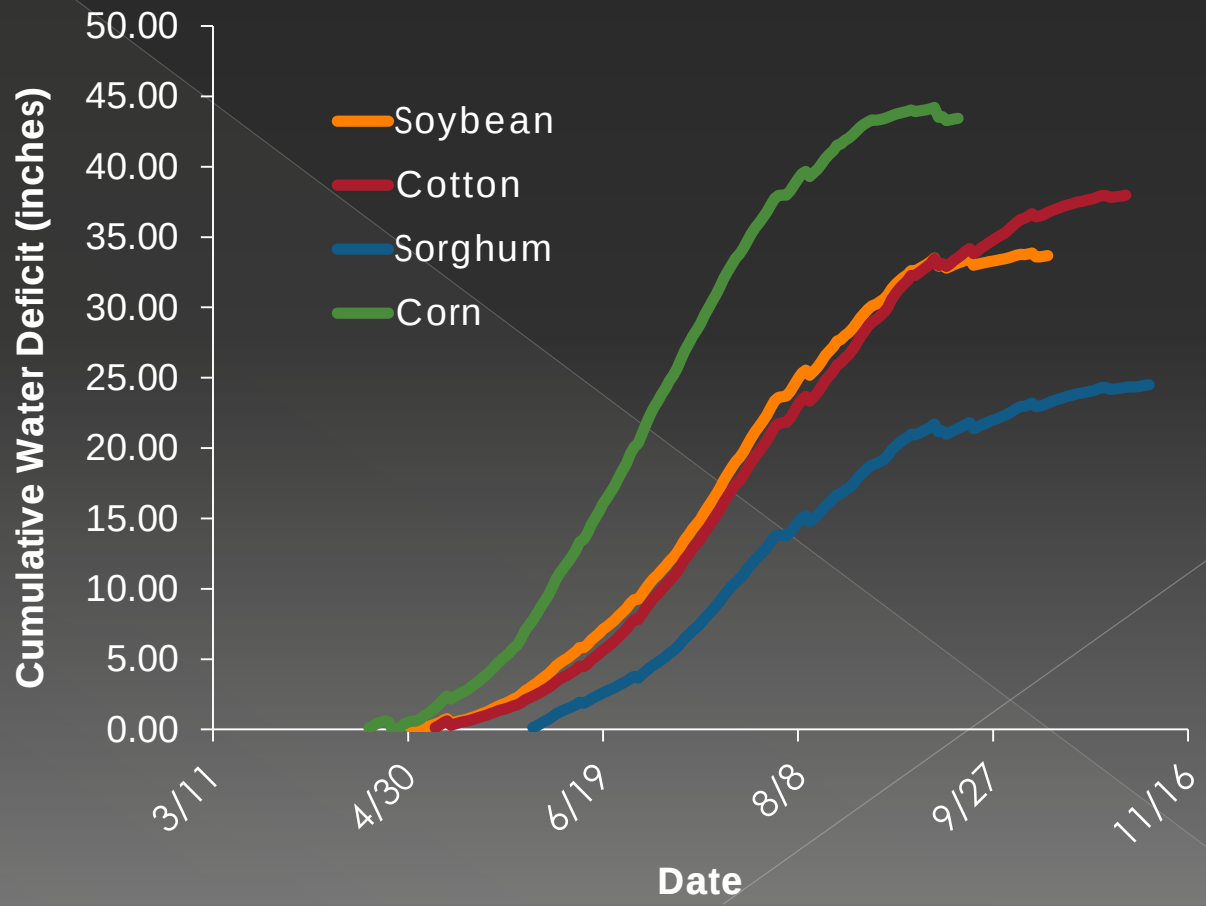
15 year Average Water Deficit (Goodwell)



2012 Water Deficit (Goodwell)



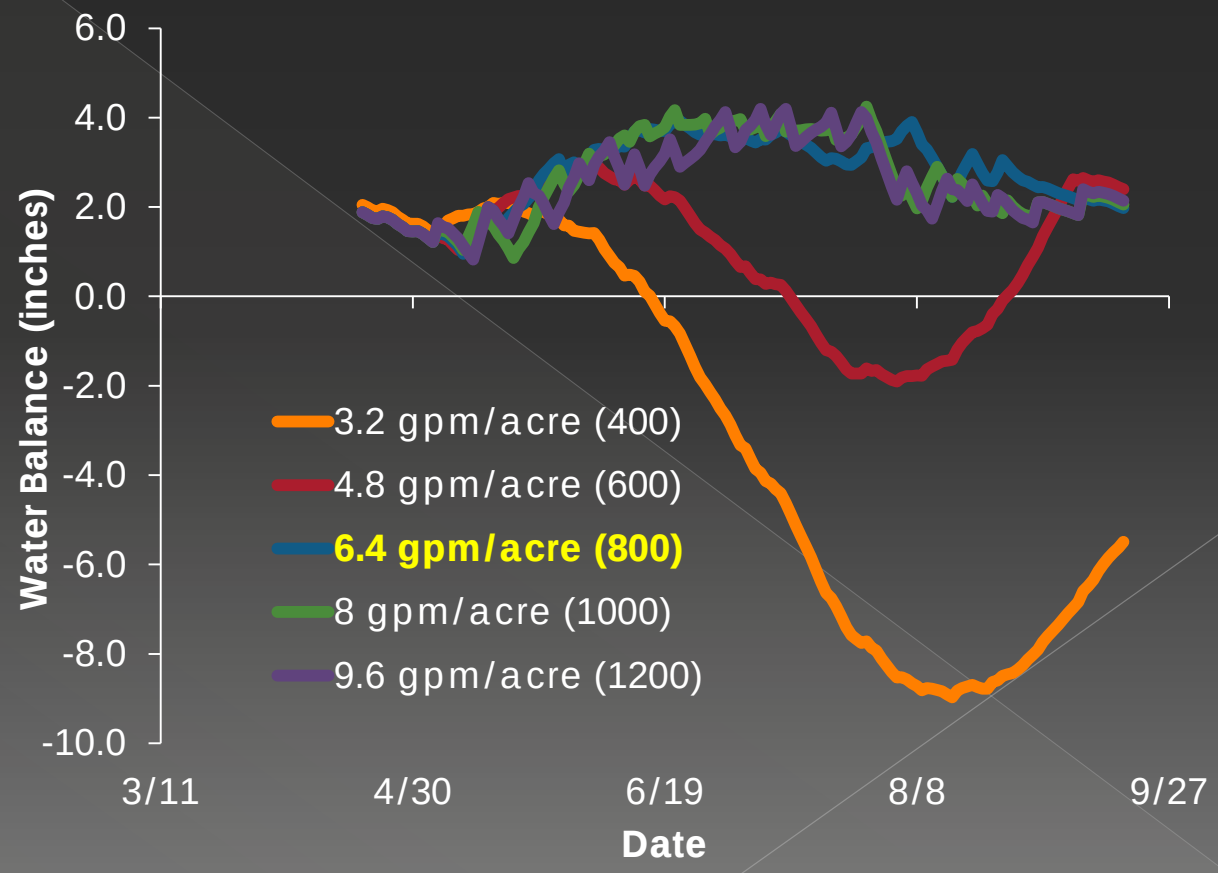
2011 Water Deficit (Goodwell)



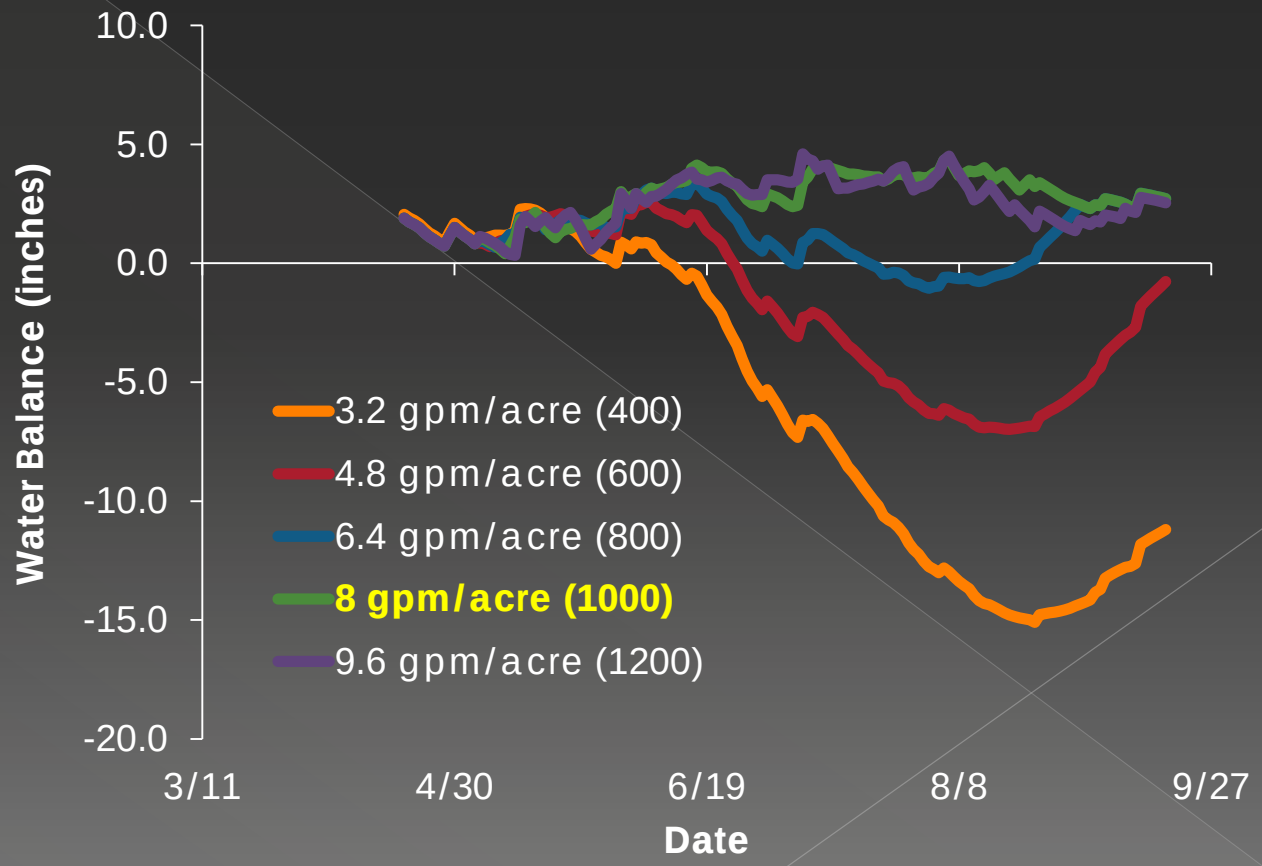
Water Balance based on Irrigation Capacity

- Goal was to maintain soil moisture above 50% of field capacity
- Early season and late season irrigation was applied at a frequency to minimize drainage

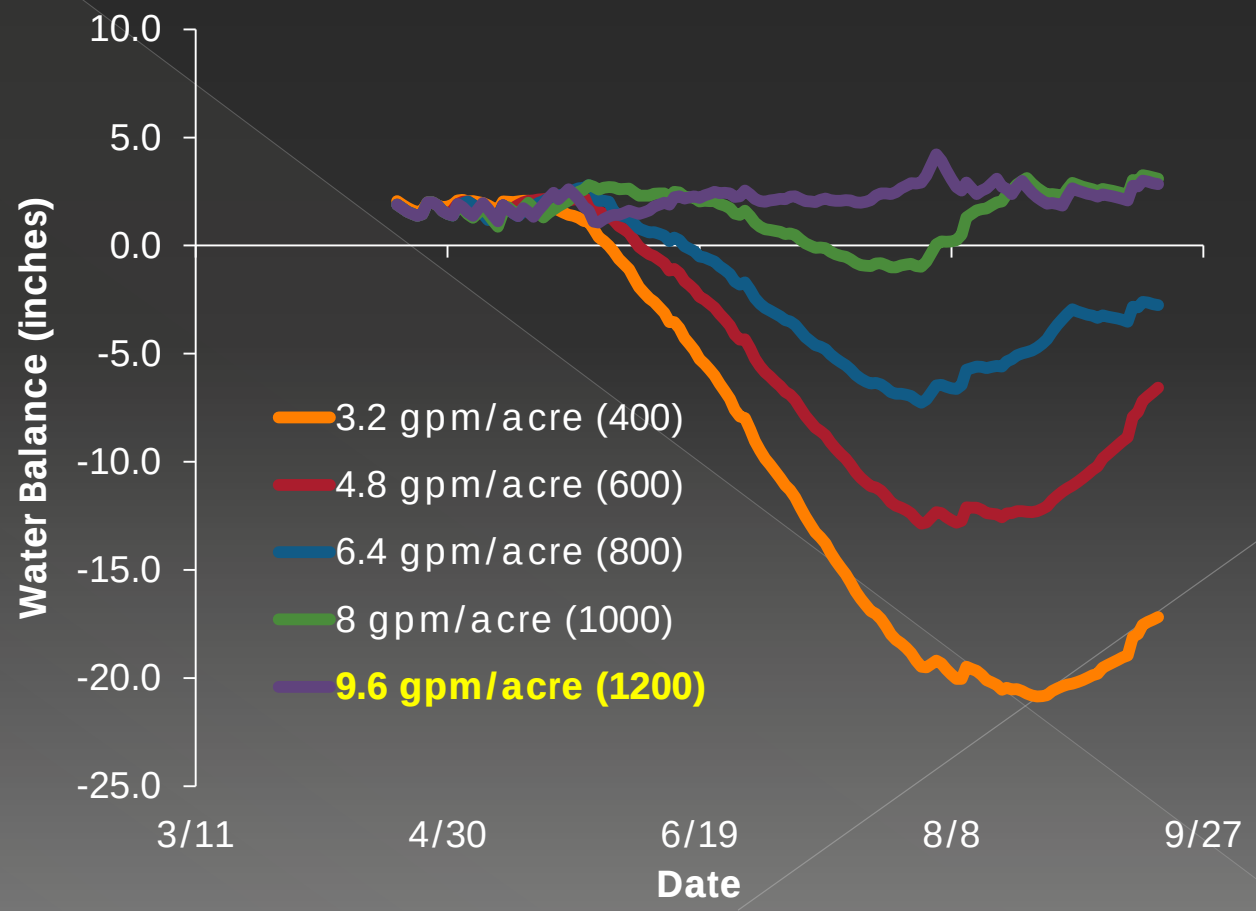
Corn Water Balance (15 year Average)



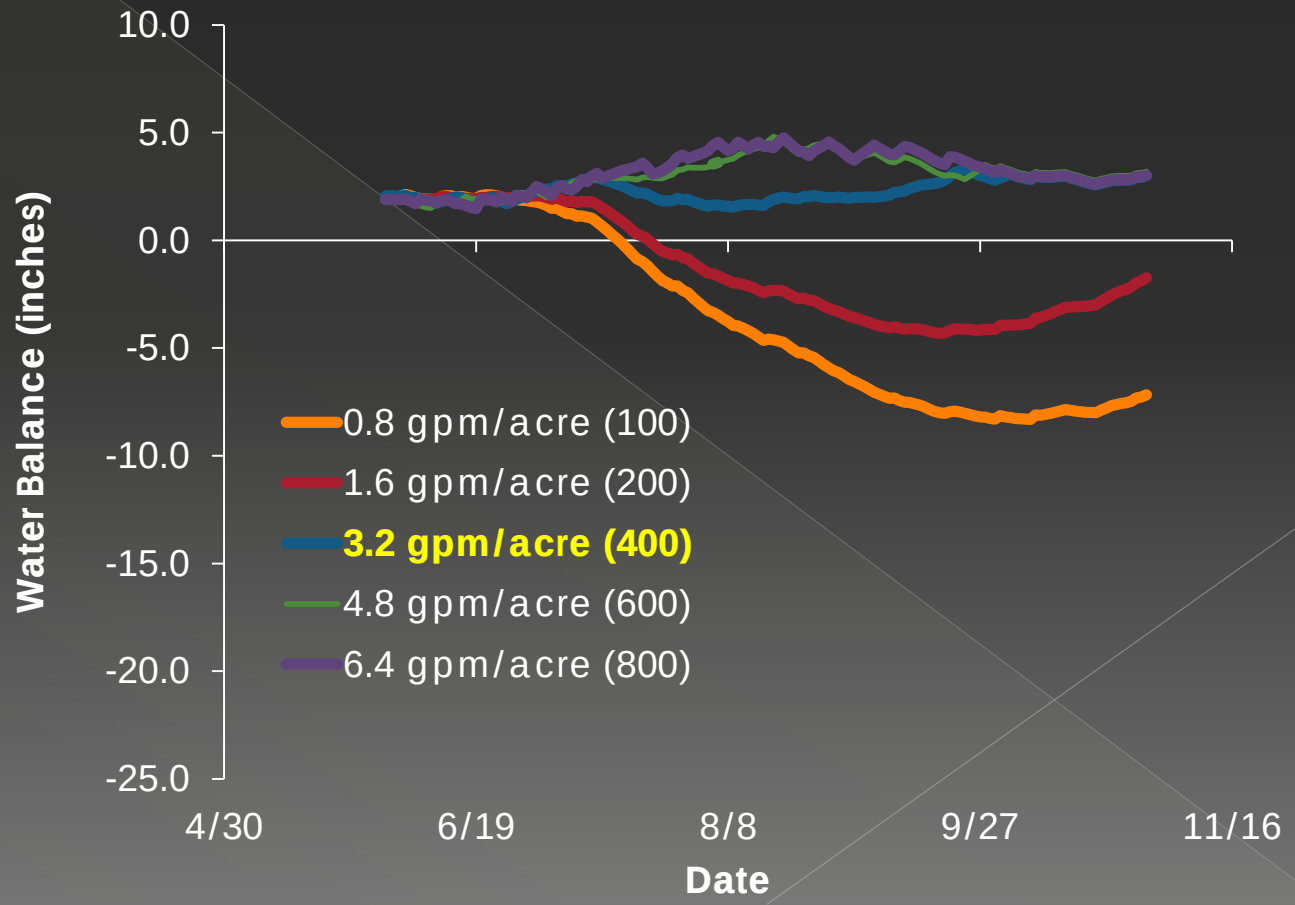
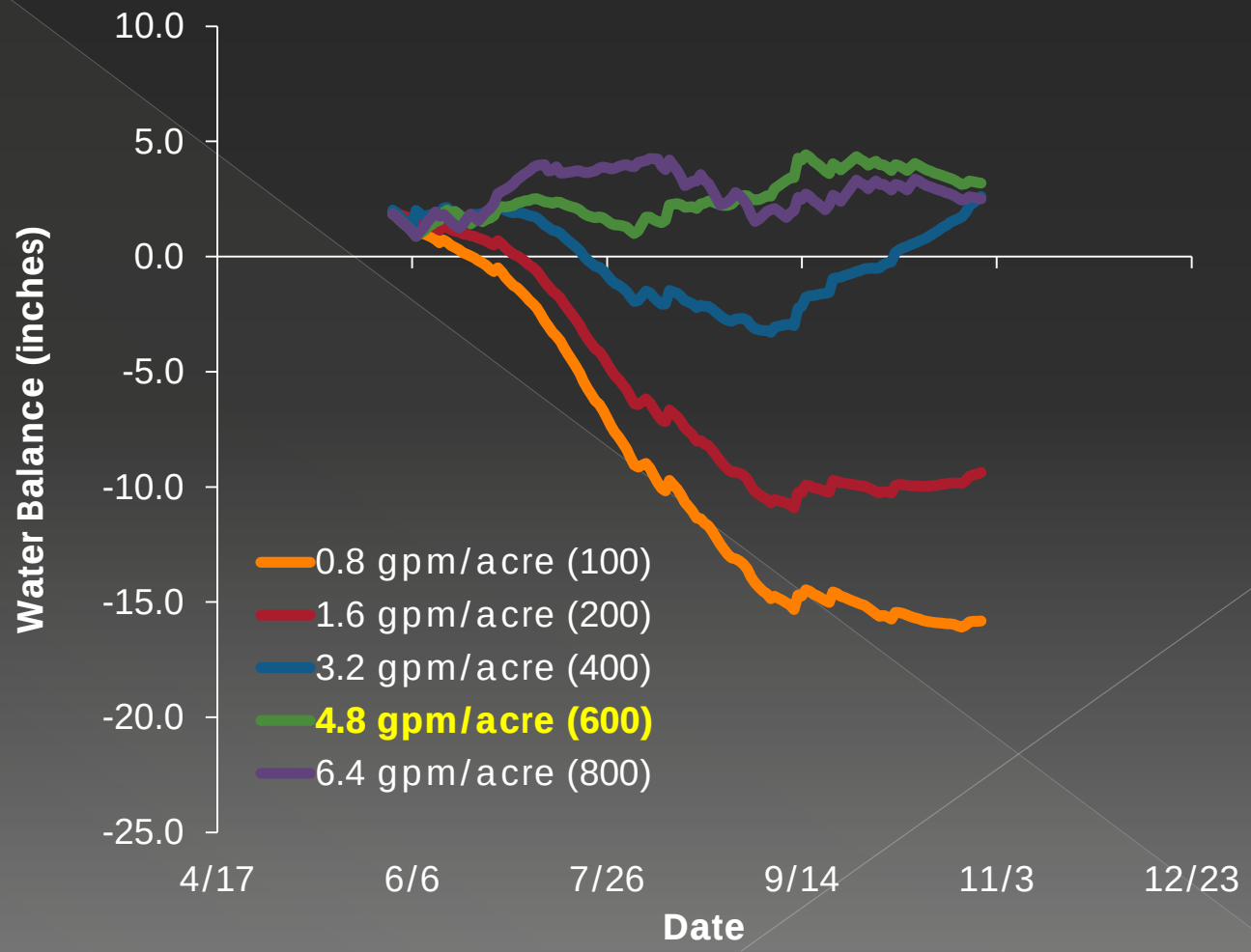
Corn
Water Balance (2012)



Corn
Water Balance (2011)



Sorghum Water Balance (15 year Average)



Sorghum Water Balance (2011)