# Actual Vineyard Evapotranspiration: A New Tool to Help Growers Manage Water to Meet Their Production Goals

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**Cofounder at Tule**

# Technology Background

# How Grower are Using the Technology

# Technology Background

- Not CIMIS
- Measures Actual ET
- 1 - 10 acres
- Wind eddies transport water vapor

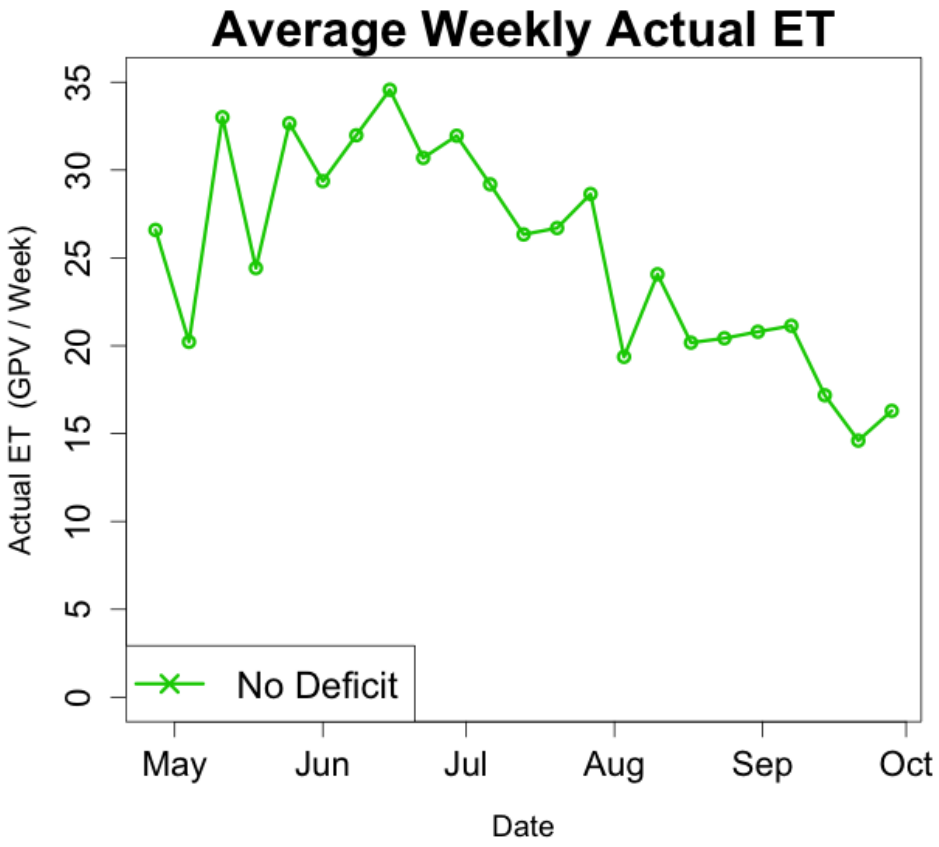
# Technology Background

- UC Davis, USDA-ARS
- Paw U, Snyder, McElrone, and Shapland

# Technology Background

- > 90 towers in 2014. 40 Growers.
- N. Coast, C. Coast, East Bay, Central Valley
- Actual ET, Stress, and Applied Water
- Website, email reports, alerts, mobile app

# How To Interpret the Data



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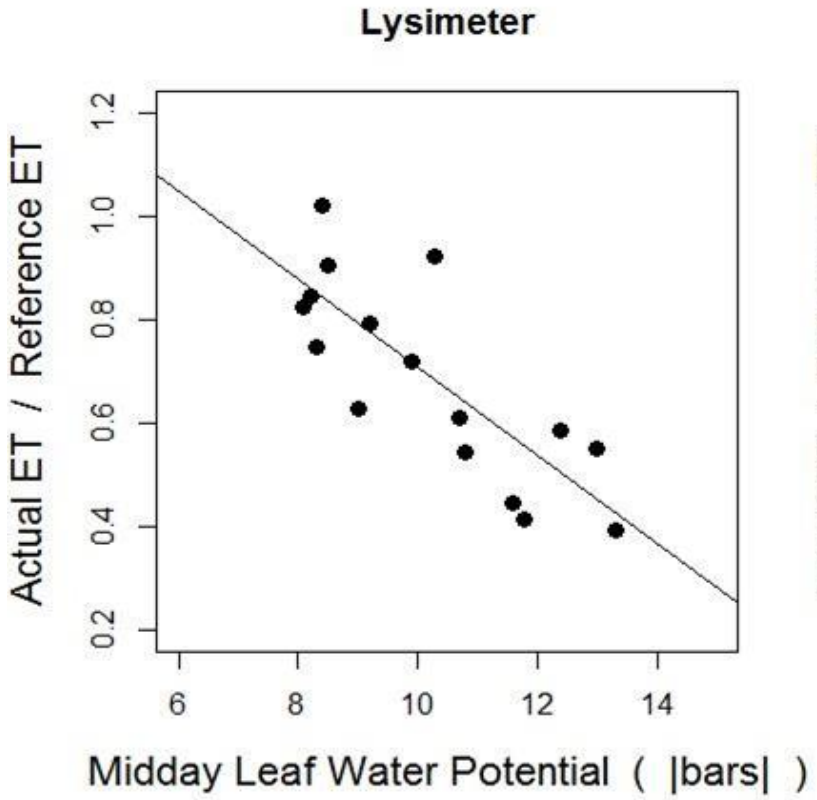


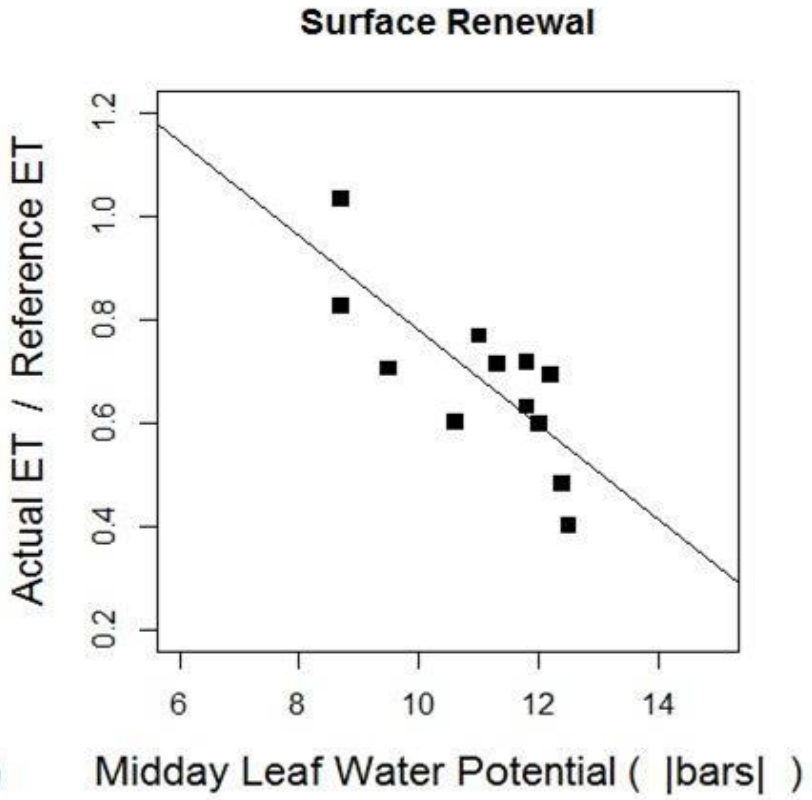

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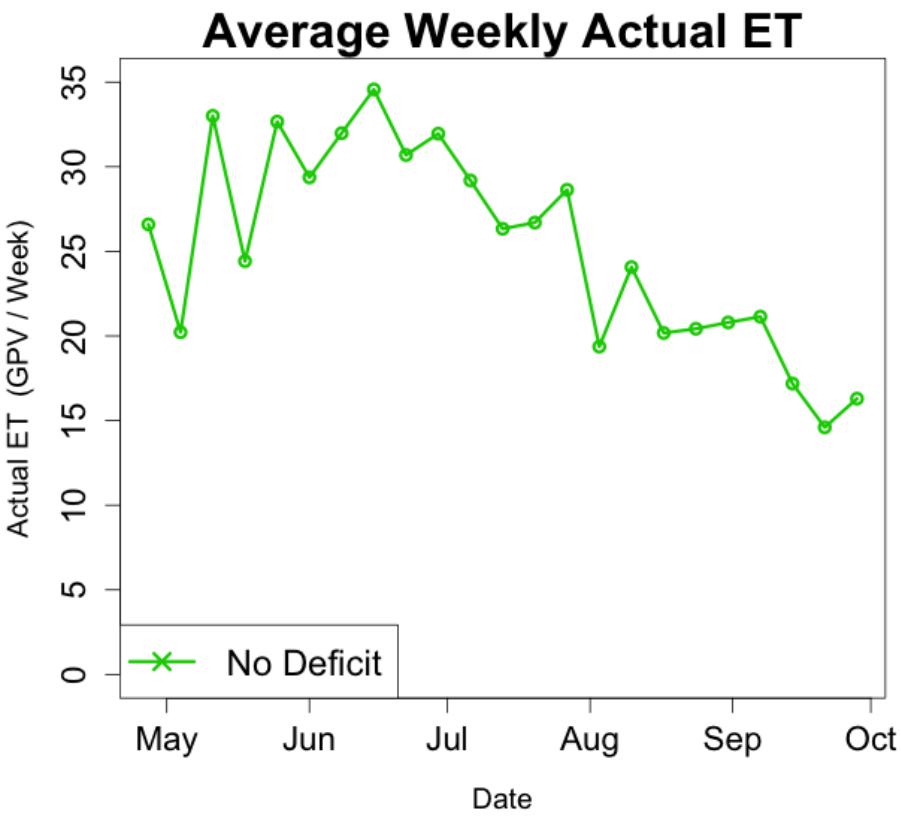


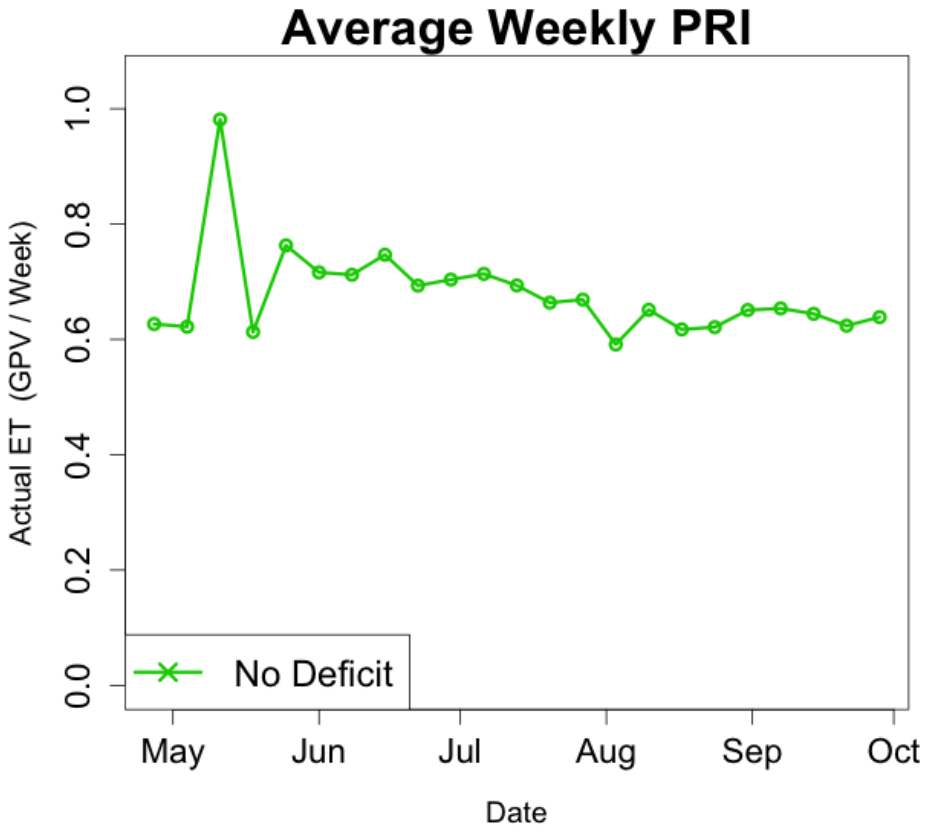

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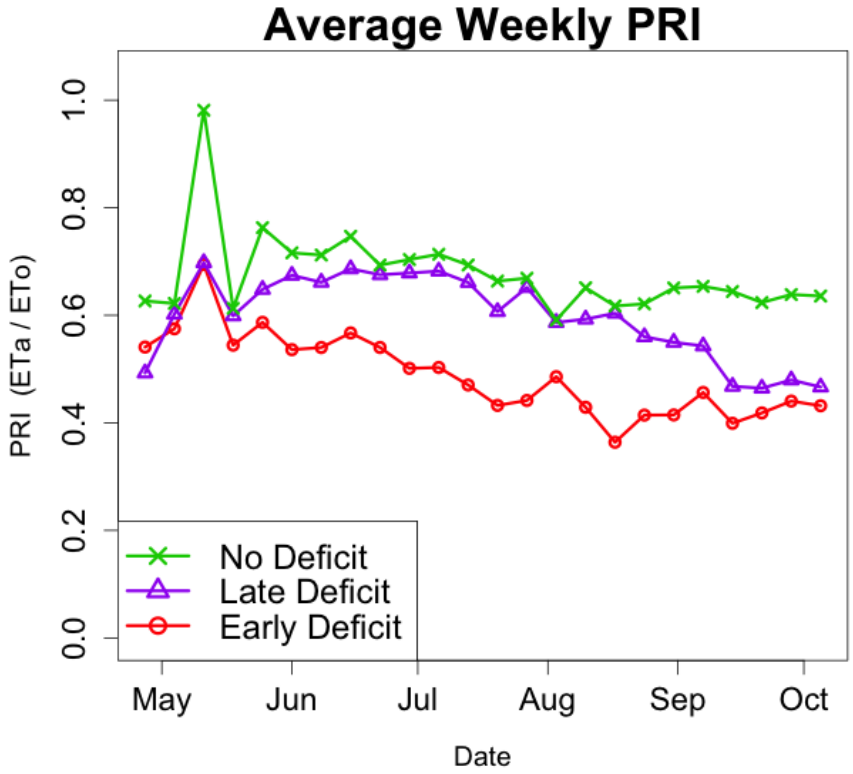


# Technology Background

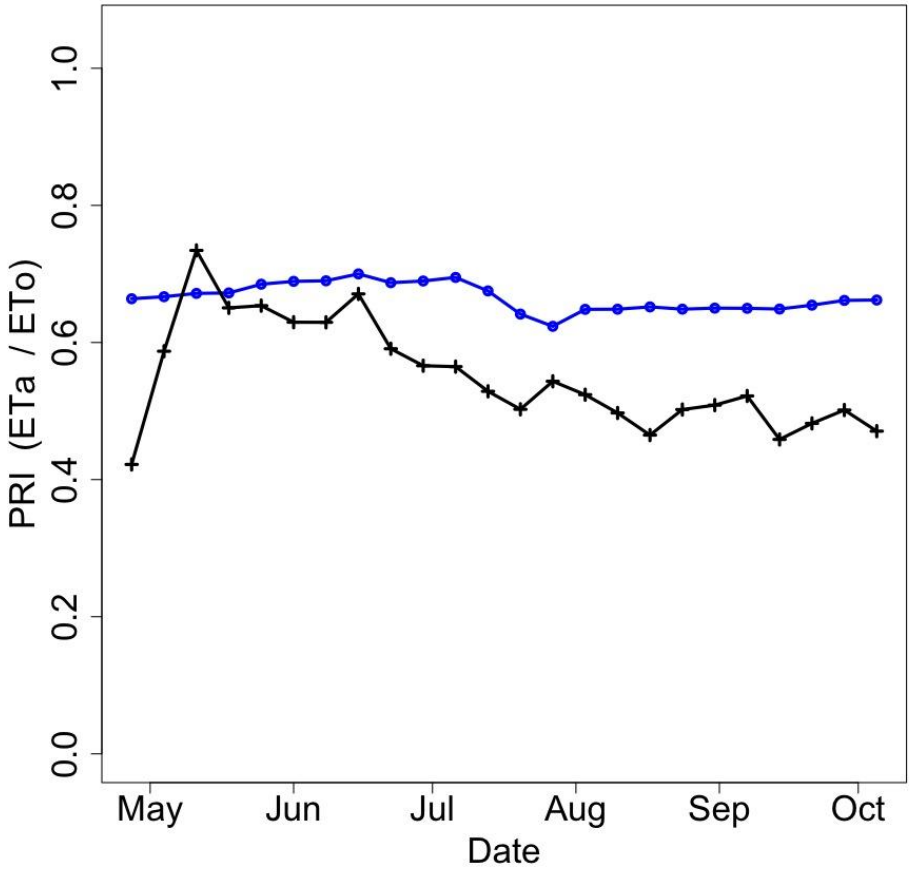
# How Grower are Using the Technology

# Early Season

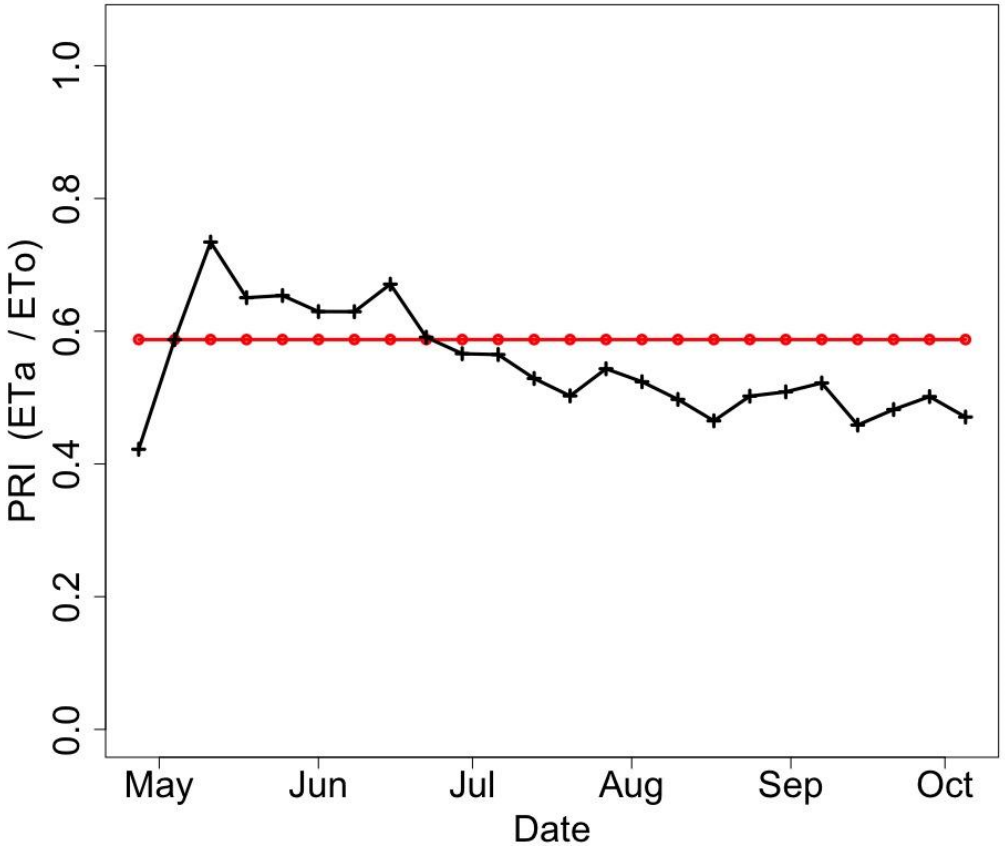
## What is the water status of my vineyard?

## What do I do about it?

# Yield Potential



# Irrigation Initiation

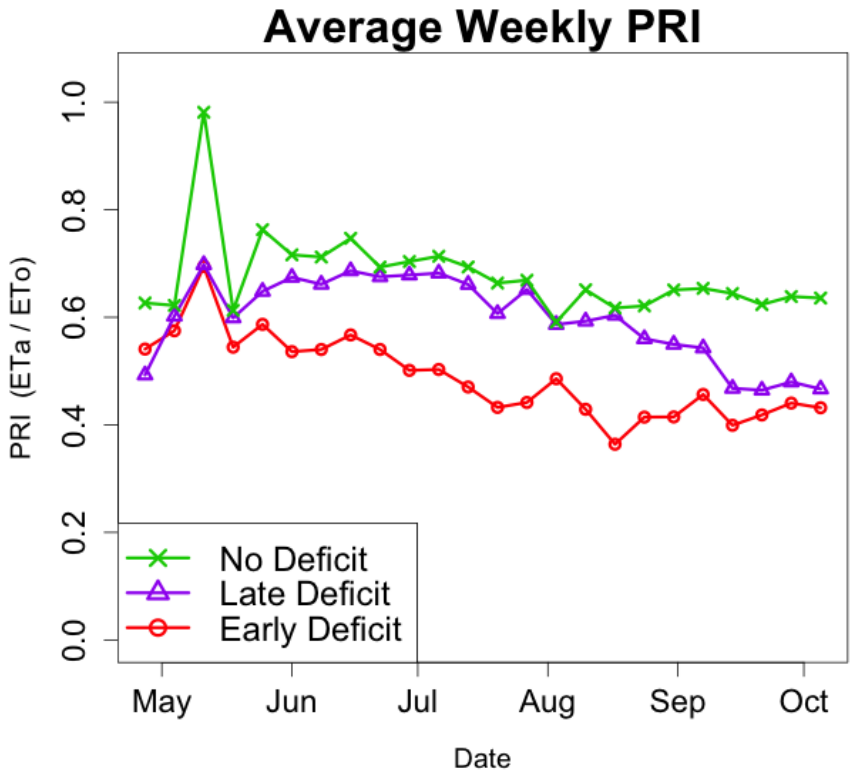


# Mid Season

## What is the water status of my vineyard?

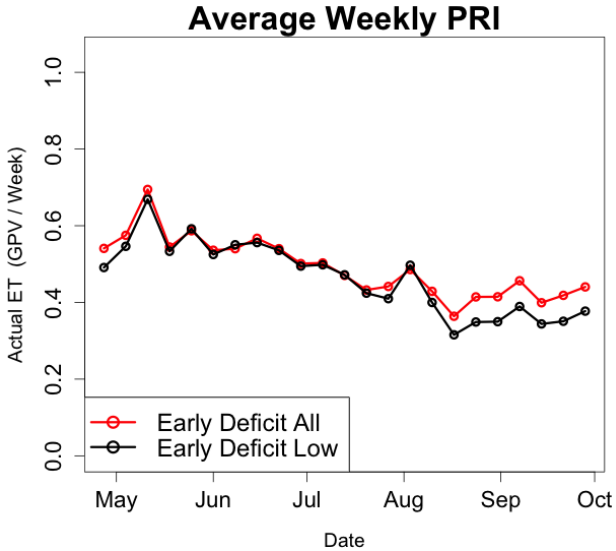
## What do I do about it?

# How To Interpret the Data



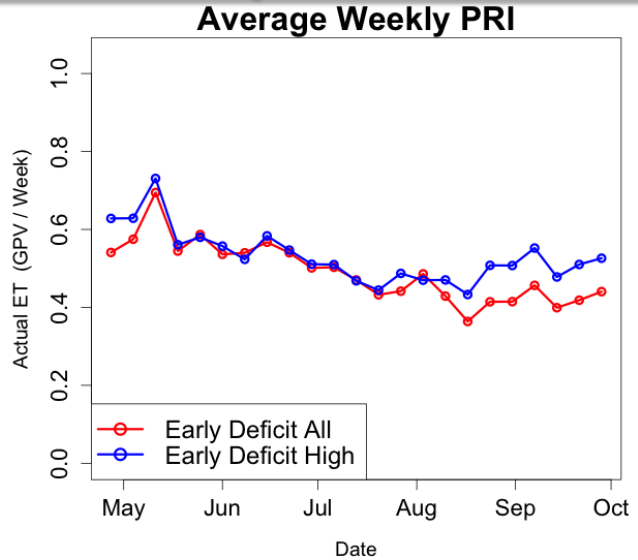

- Soil TAW
- Irrigation amounts

# Irrigation influences on Actual ET (TAW is <6”)




Early Deficit Low

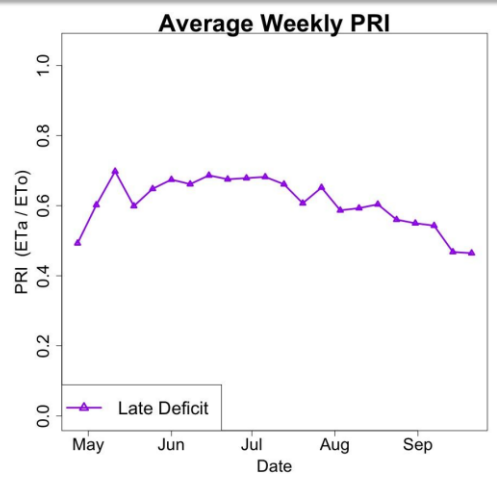
| | Jun | Jul | Aug | Sep | Avg |
|---|---|---|---|---|---|
| Irr (GPV / wk) | 1 | 4 | 5 | 3 | 3 |
| B/t Irr (days) | 13 | 6 | 6 | 10 | 8 |
| % ET | 6% | 24% | 42% | 33% | 26% |

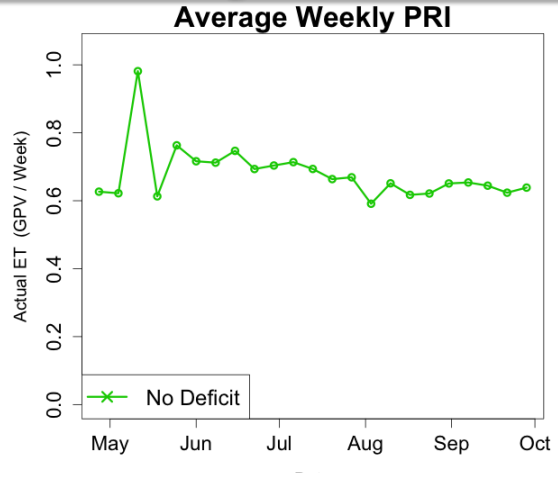


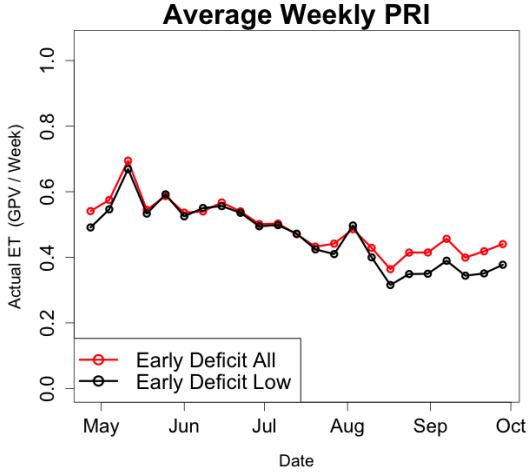

Early Deficit High

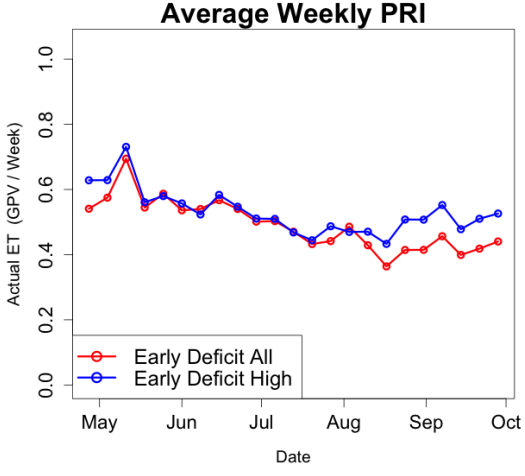
| | Jun | Jul | Aug | Sep | Avg |
|---|---|---|---|---|---|
| Irr (GPV / wk) | 6 | 6 | 12 | 8 | 8 |
| B/t Irr (days) | 7 | 6 | 4 | 6 | 6 |
| % ET | 25% | 32% | 68% | 56% | 44% |

# Wine Quality



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