



# Cover Crops and Soil Moisture Benefits

*Jose Payero, PhD*

Clemson University, Edisto Research and Education Center

[jpayero@clemson.edu](mailto:jpayero@clemson.edu)



2014-2015 Season



**Mix:**  
Rye (56.7%),  
Oats (14.1%),  
Turnip (3.45%),  
Vetch (7%),  
Radish (3.45%),  
Crimson clover (14.1%);

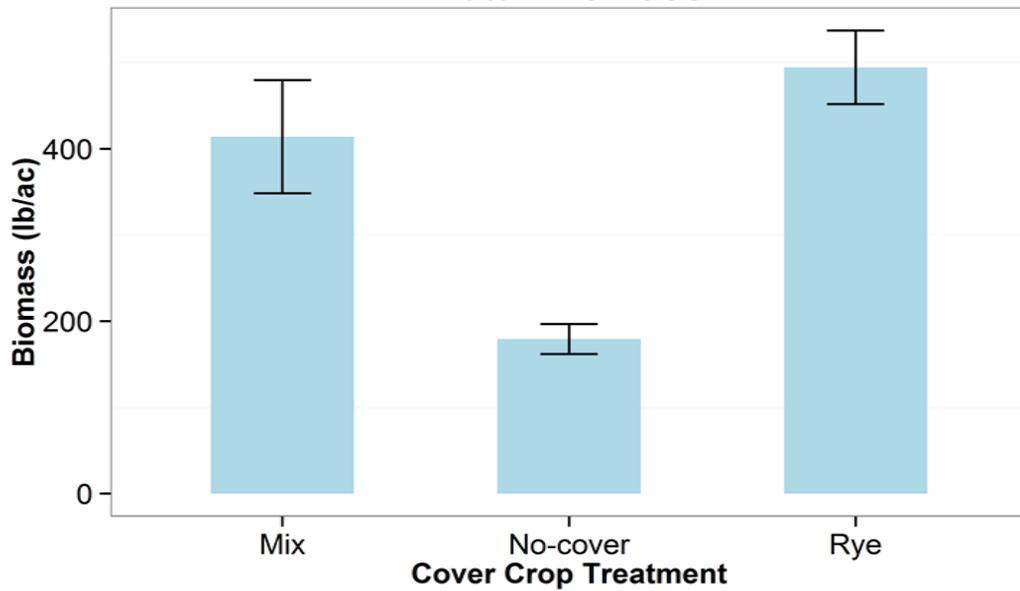


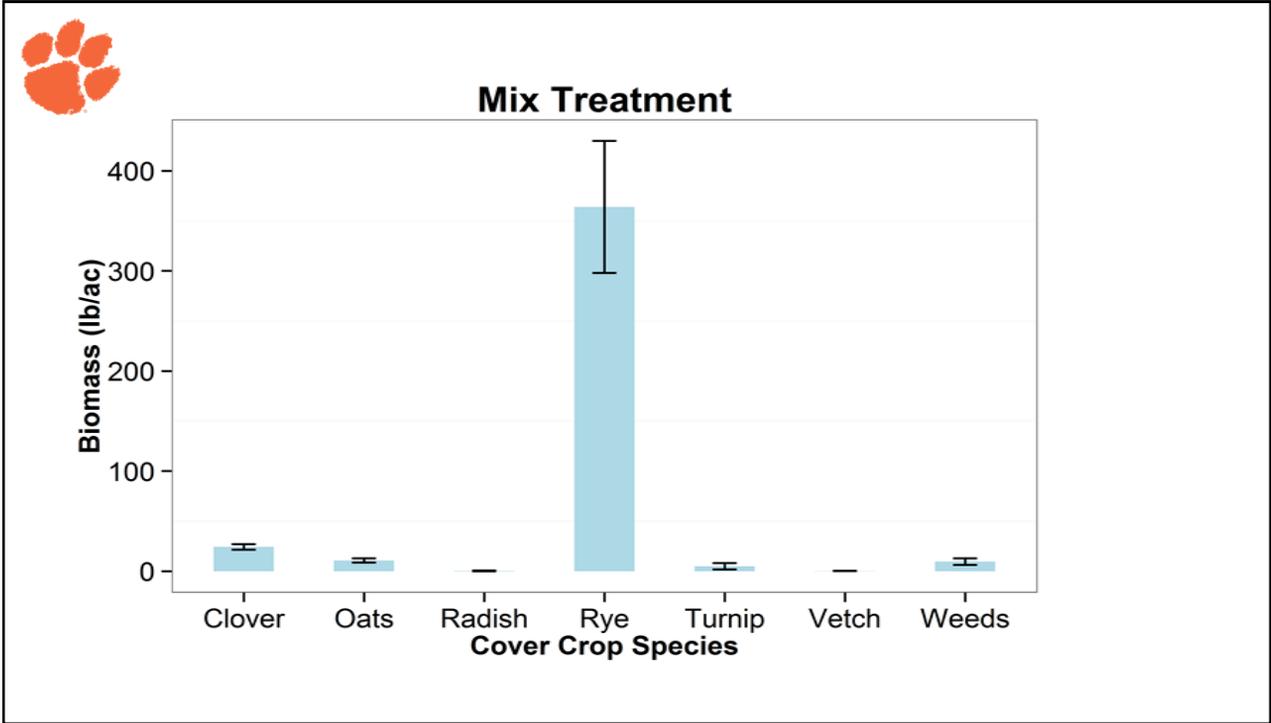
Sensor depths:

- 6 in
- 12 in
- 18 in
- 24 in



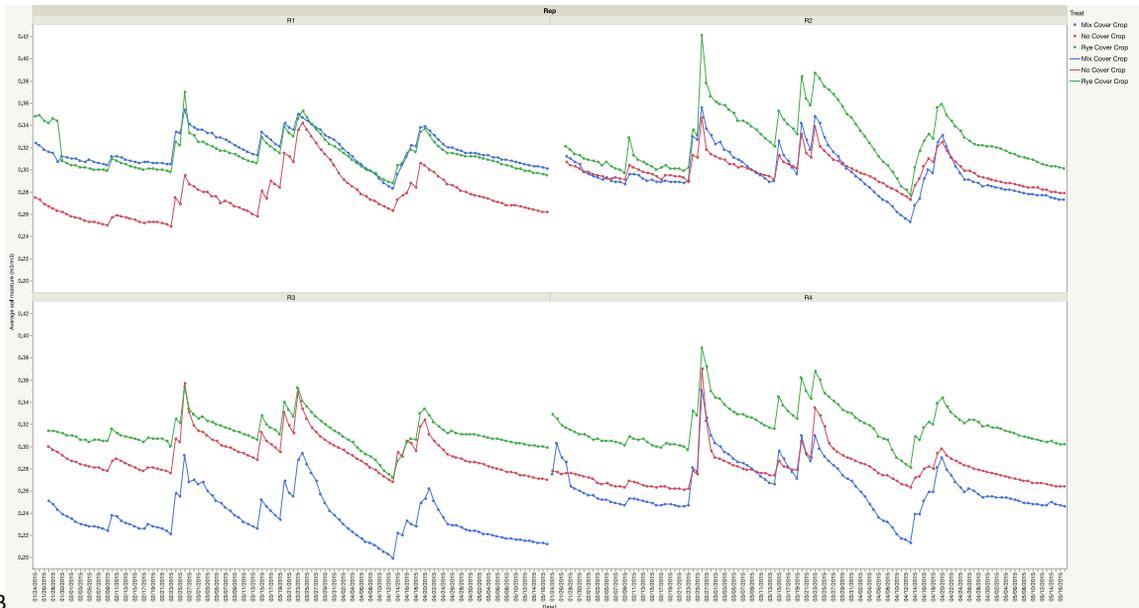
### Total Biomass







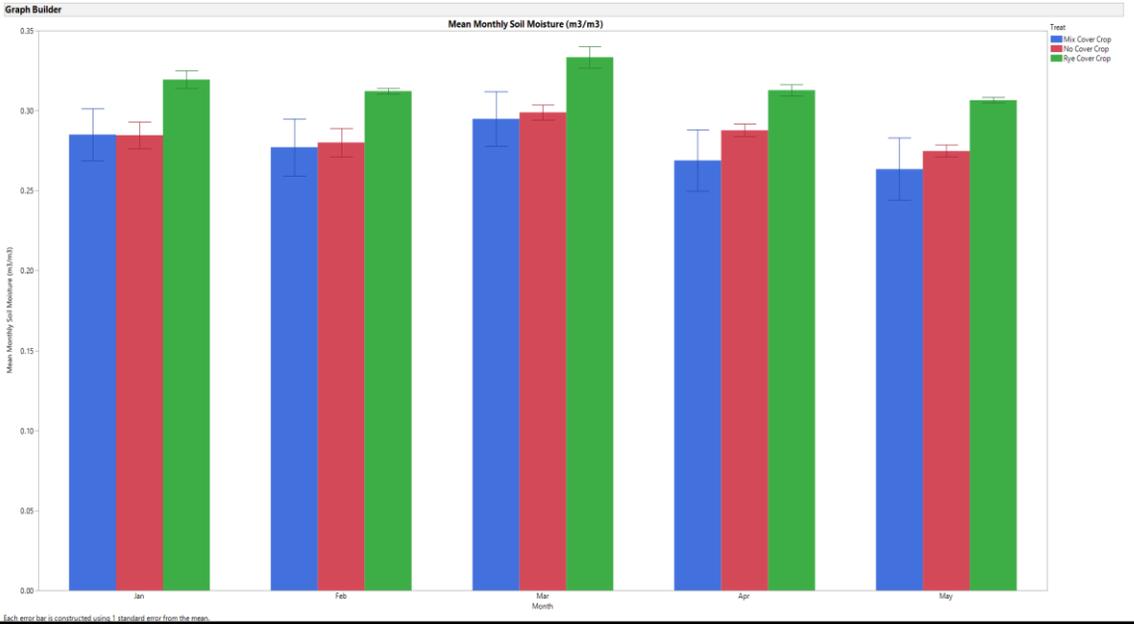
### Average Soil moisture -2014-15



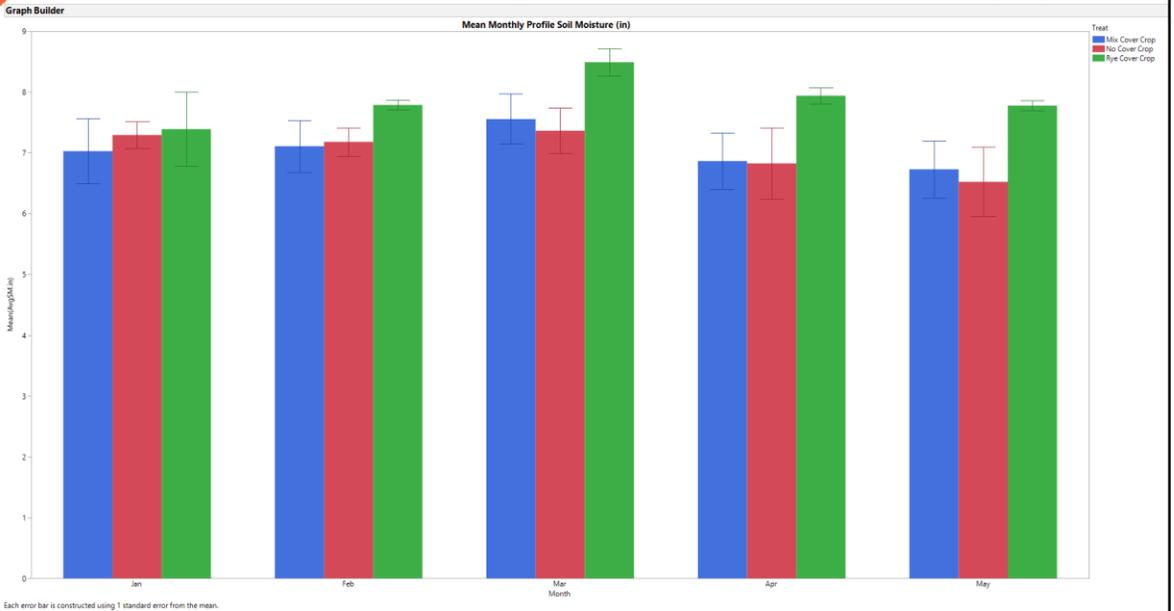
Graph B



## 2015 -- Mean Monthly Soil Moisture (m3/m3)



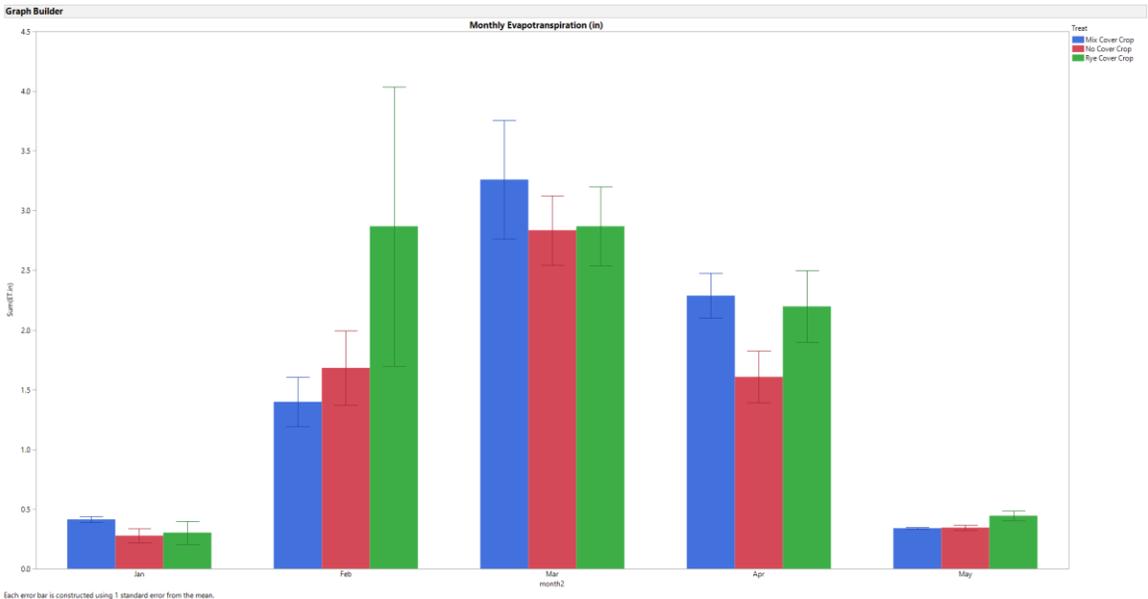
## 2015 - Mean Monthly Profile Soil Moisture (in)





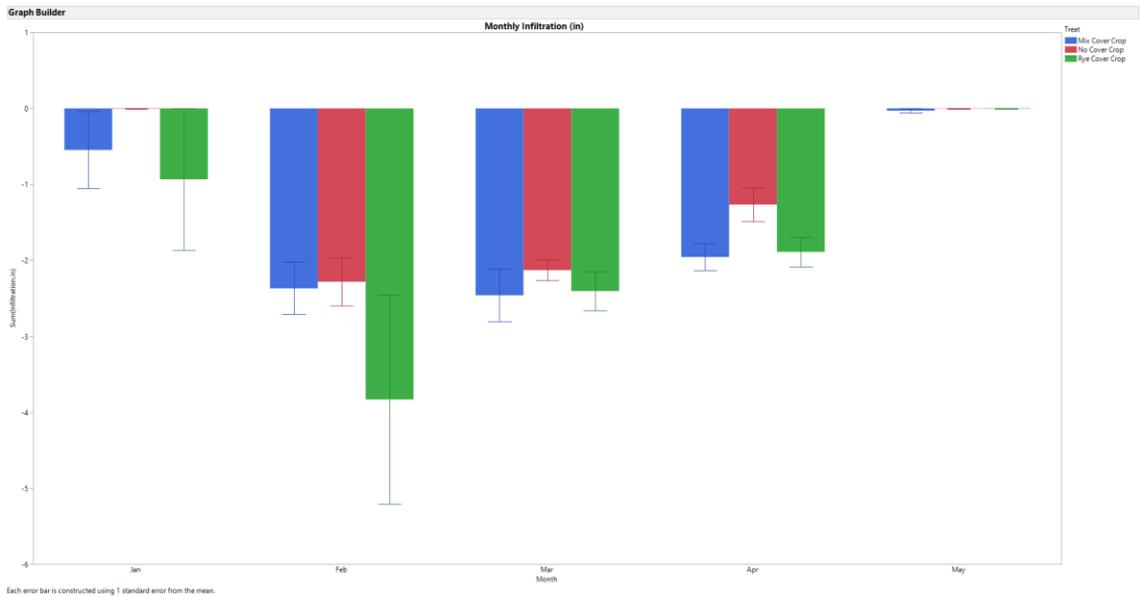
2015

# Monthly Evapotranspiration (in)



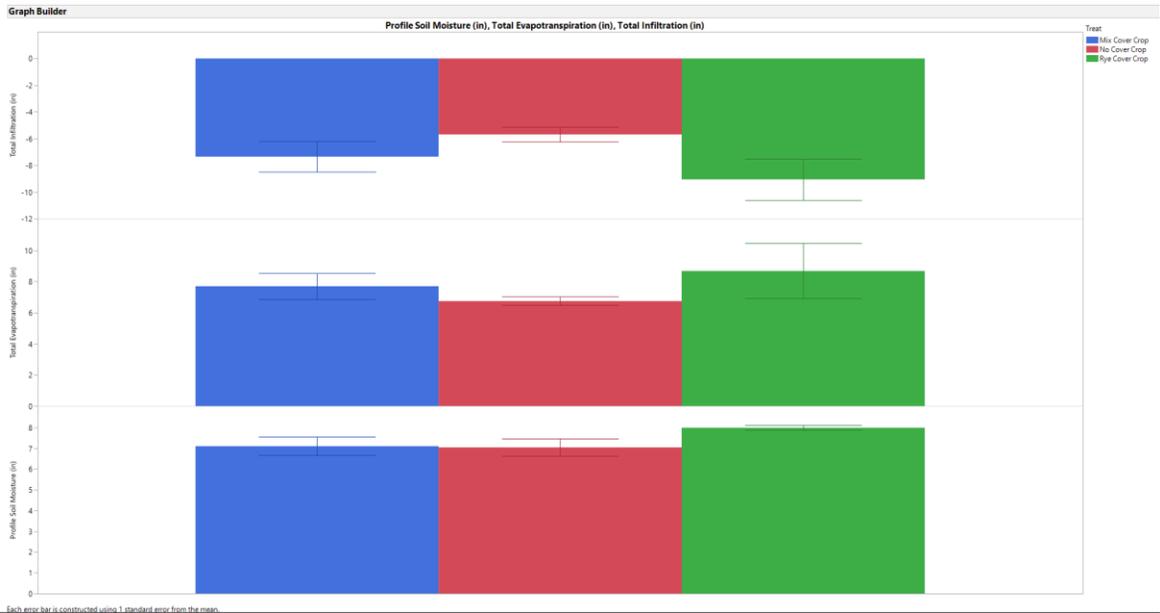
2015

# Monthly Infiltration (in)





## 2015 – Profile Soil Moisture (in), Total ET (in), Total Infiltration (in)



## 2017

- Two Treatments
  - Cover vs No Cover (Rye)
  - Four replications



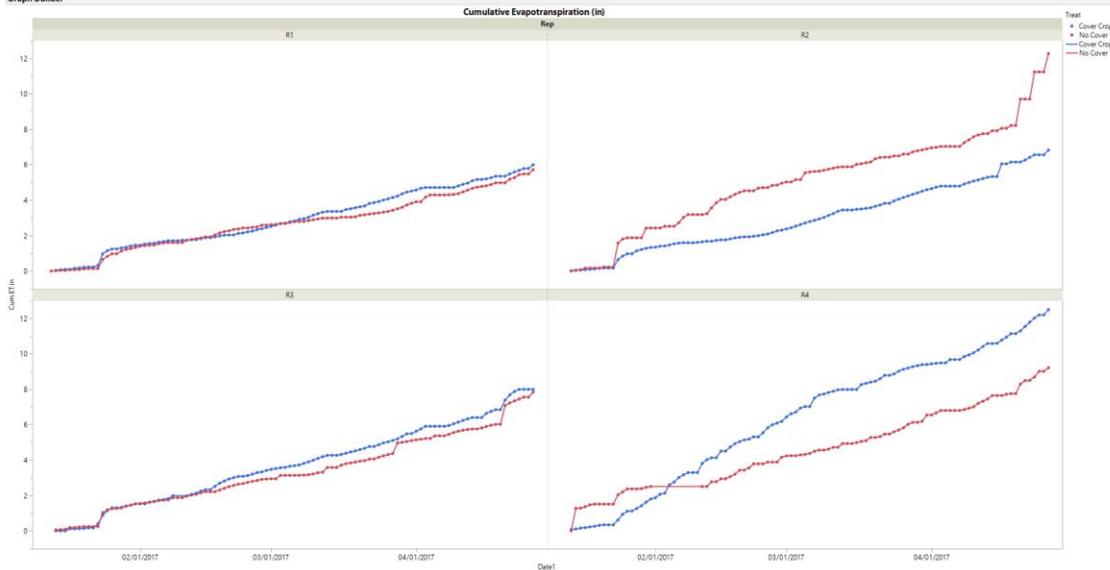
2017

Graph Builder



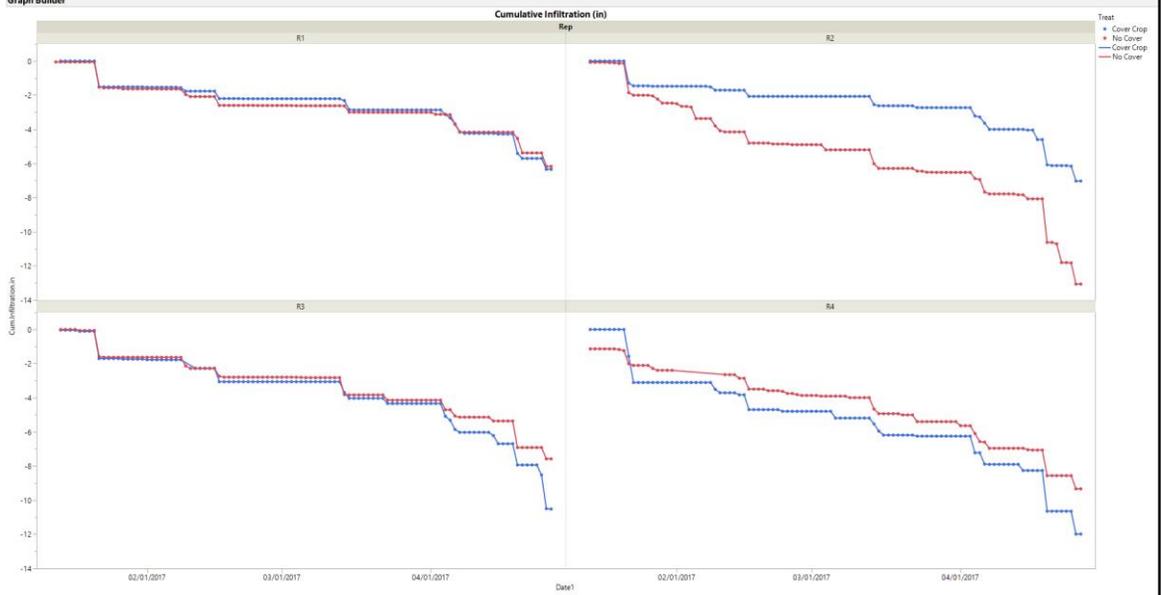
2017 – Cumulative Evapotranspiration (in)

Graph Builder

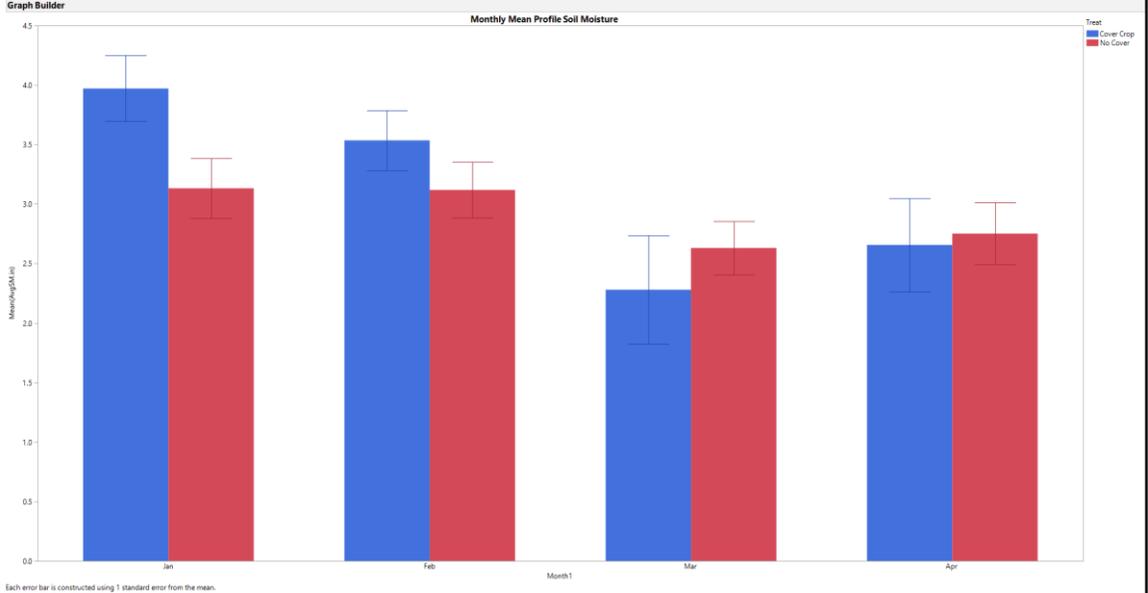




## 2017 – Cumulative Infiltration (in)

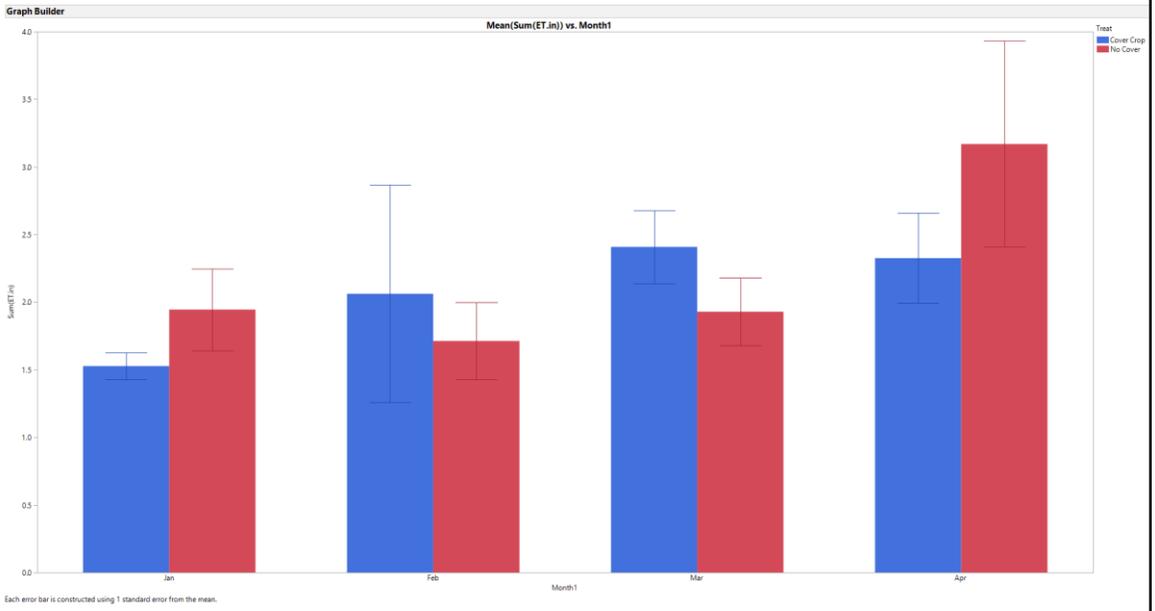


## 2017 – Mean Monthly Profile Soil Moisture (in)

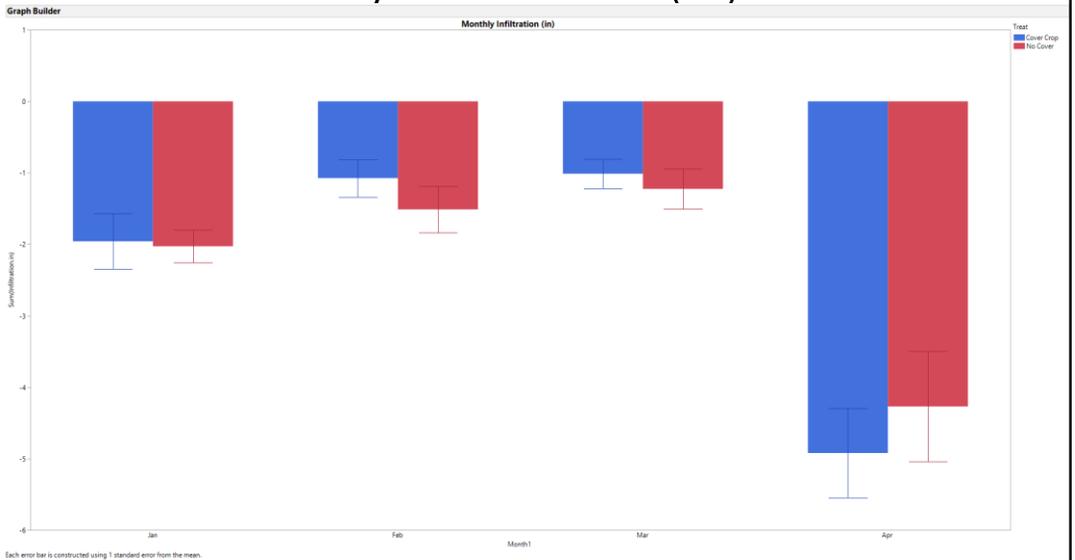




## 2017 --- Monthly Evapotranspiration (in)

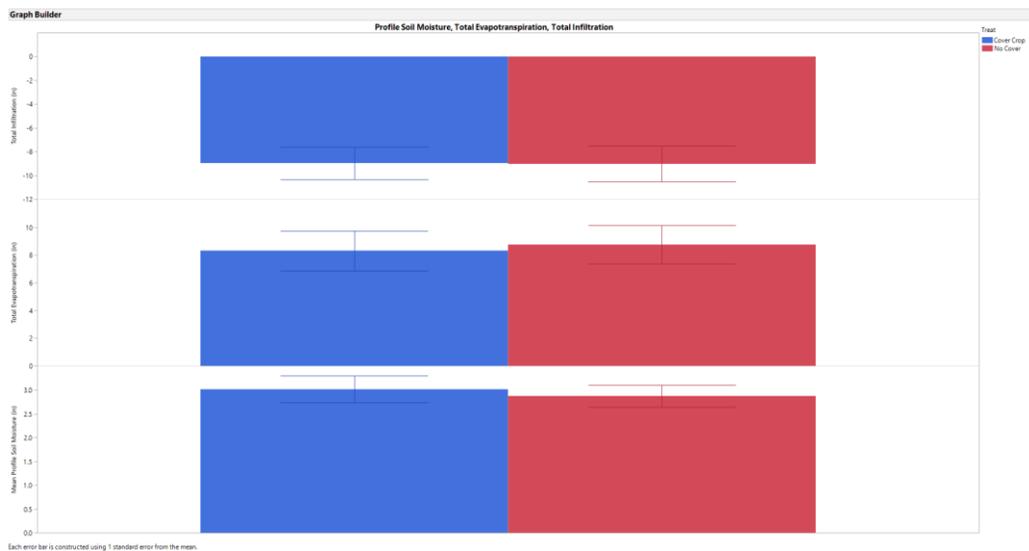


## 2017 – Monthly Infiltration (in)





## 2017 – Season Soil Moisture, Evapotranspiration, Infiltration (in)



## 2019: Lysimeter ET measurements



