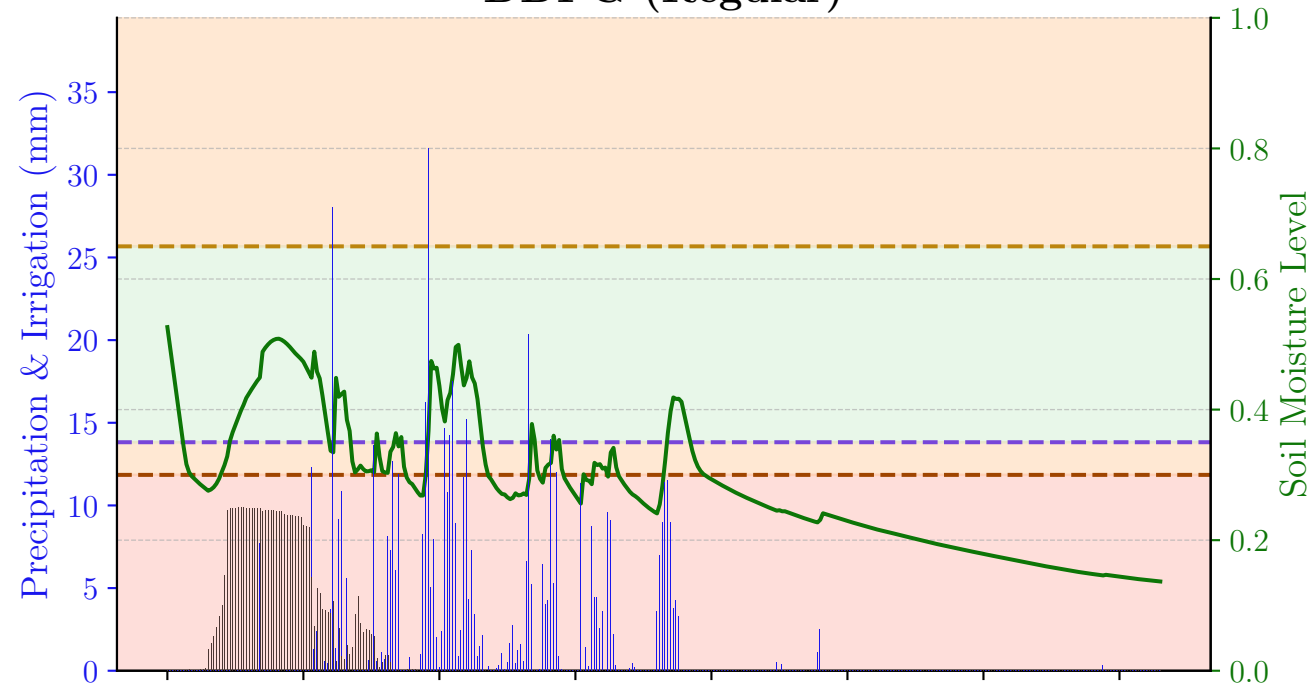
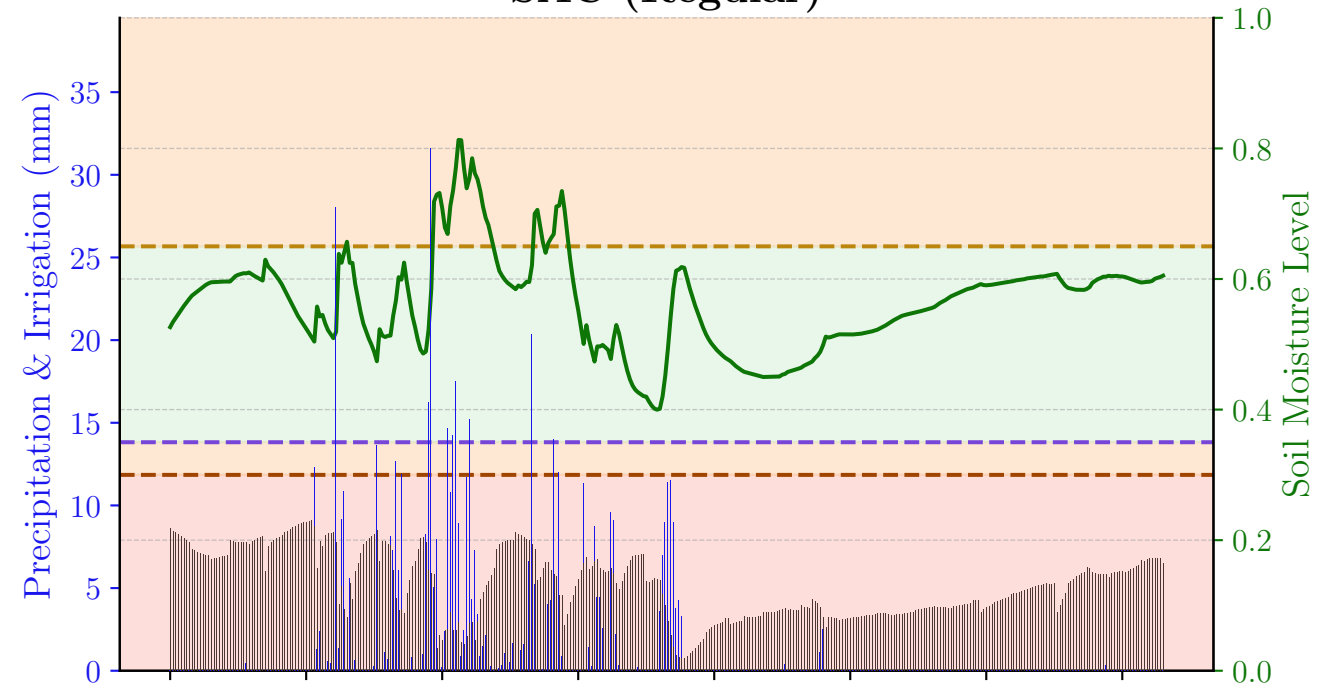


# Model Performance During Evaluation, Seed 59 ( $d = 1$ )

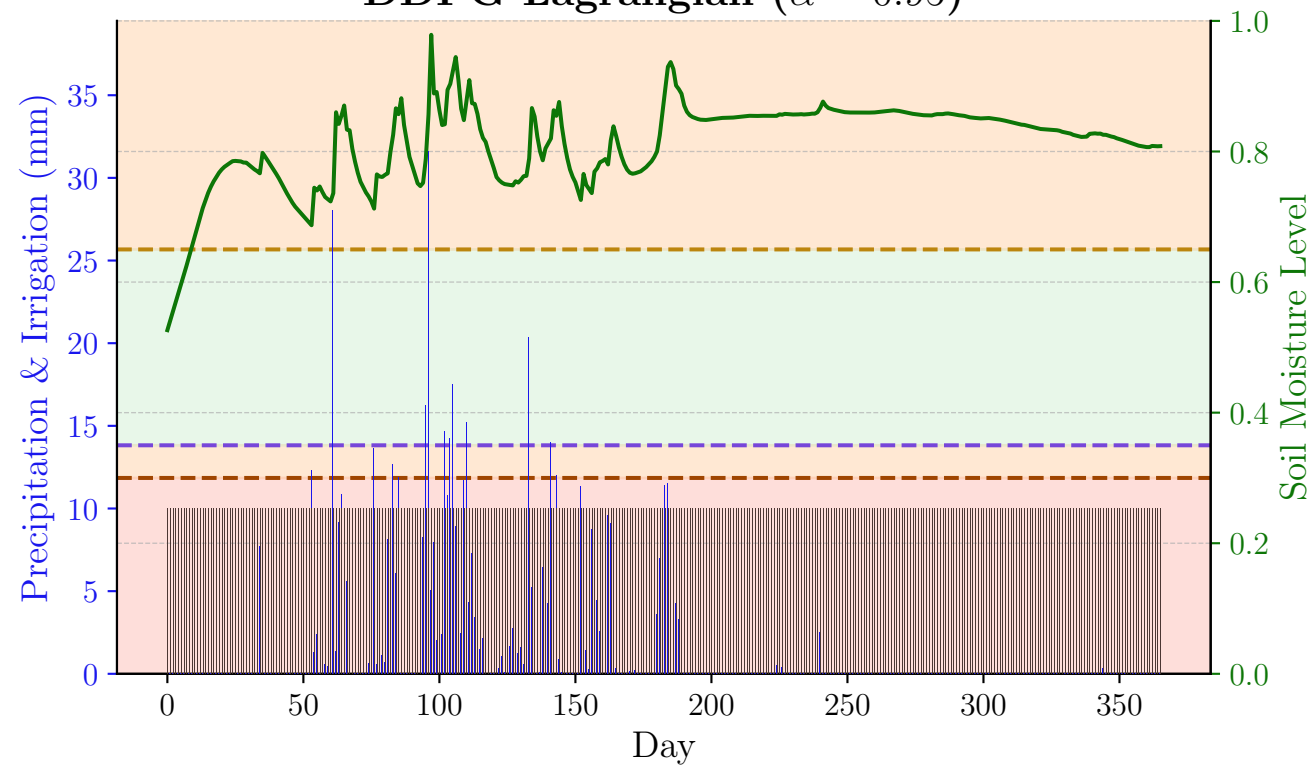
## DDPG (Regular)



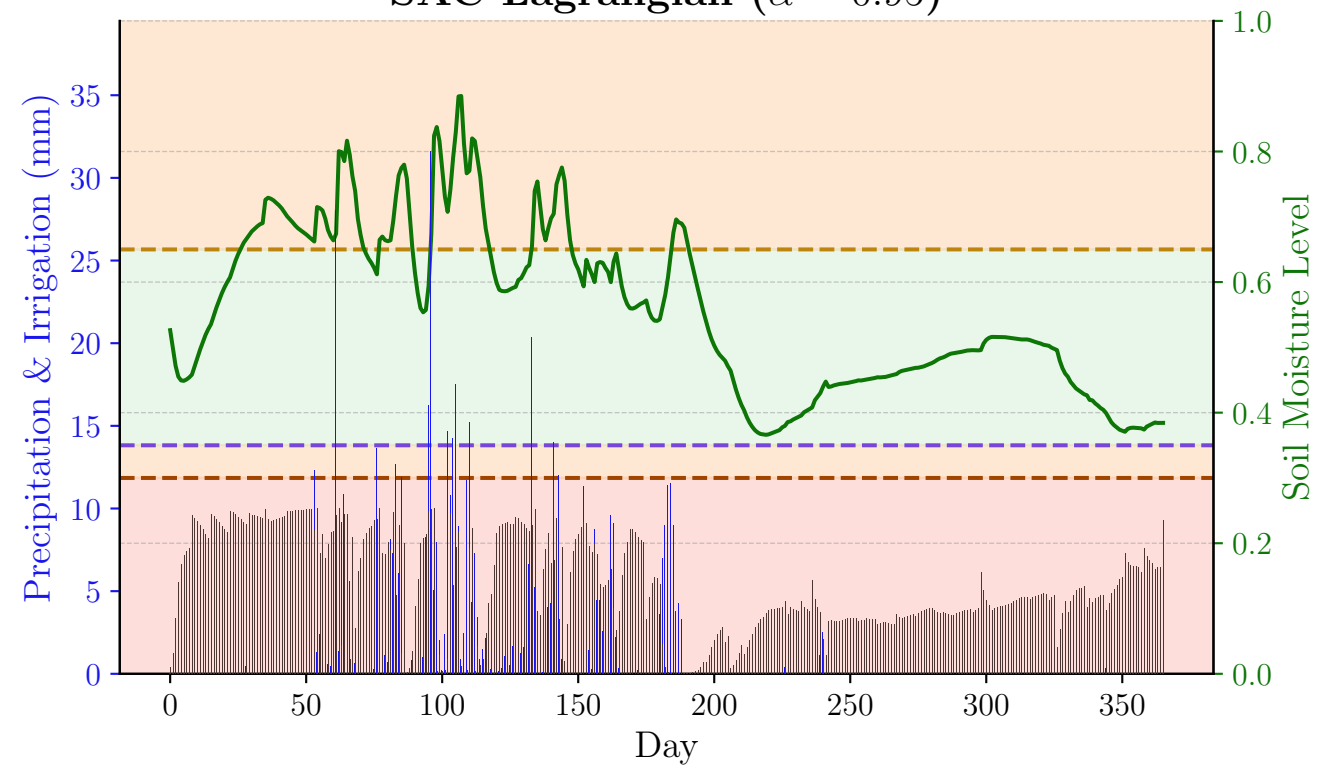
## SAC (Regular)



## DDPG Lagrangian ( $\alpha = 0.95$ )



## SAC Lagrangian ( $\alpha = 0.95$ )



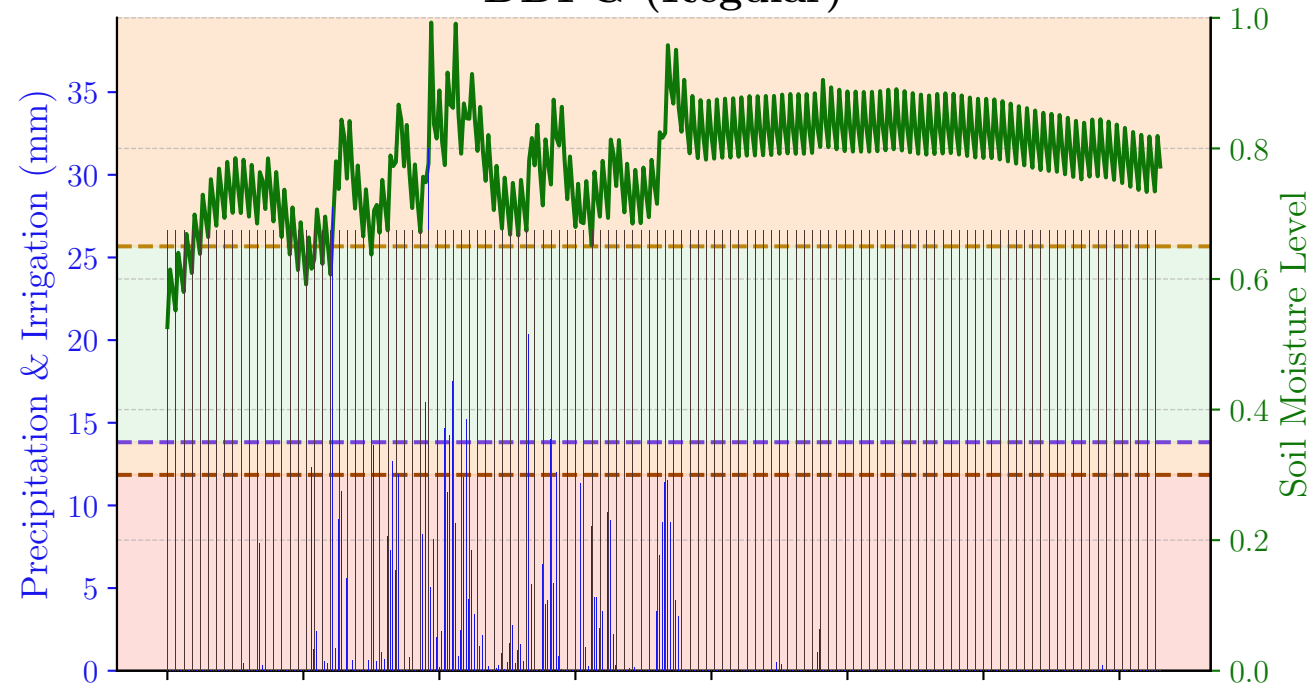
— Soil Moisture    ■ Rainfall (mm)    ■ Irrigation (mm)

--- Field Capacity ( $s_{fc} = 0.65$ )    --- Water Stress Point ( $s^* = 0.35$ )    --- Permanent Wilting Point ( $s_w = 0.3$ )

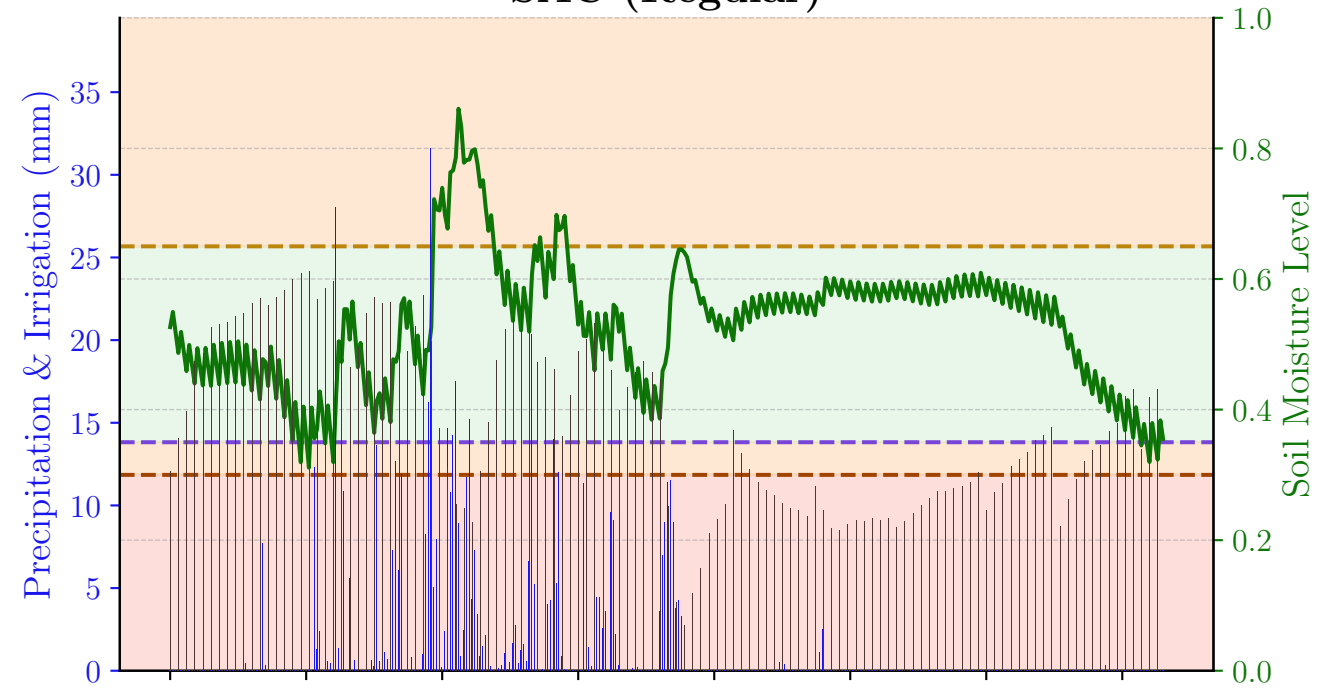
■ Feasible Region    ■ Chance-Constrained Region    ■ Hard-Constrained Region

# Model Performance During Evaluation, Seed 59 ( $d = 3$ )

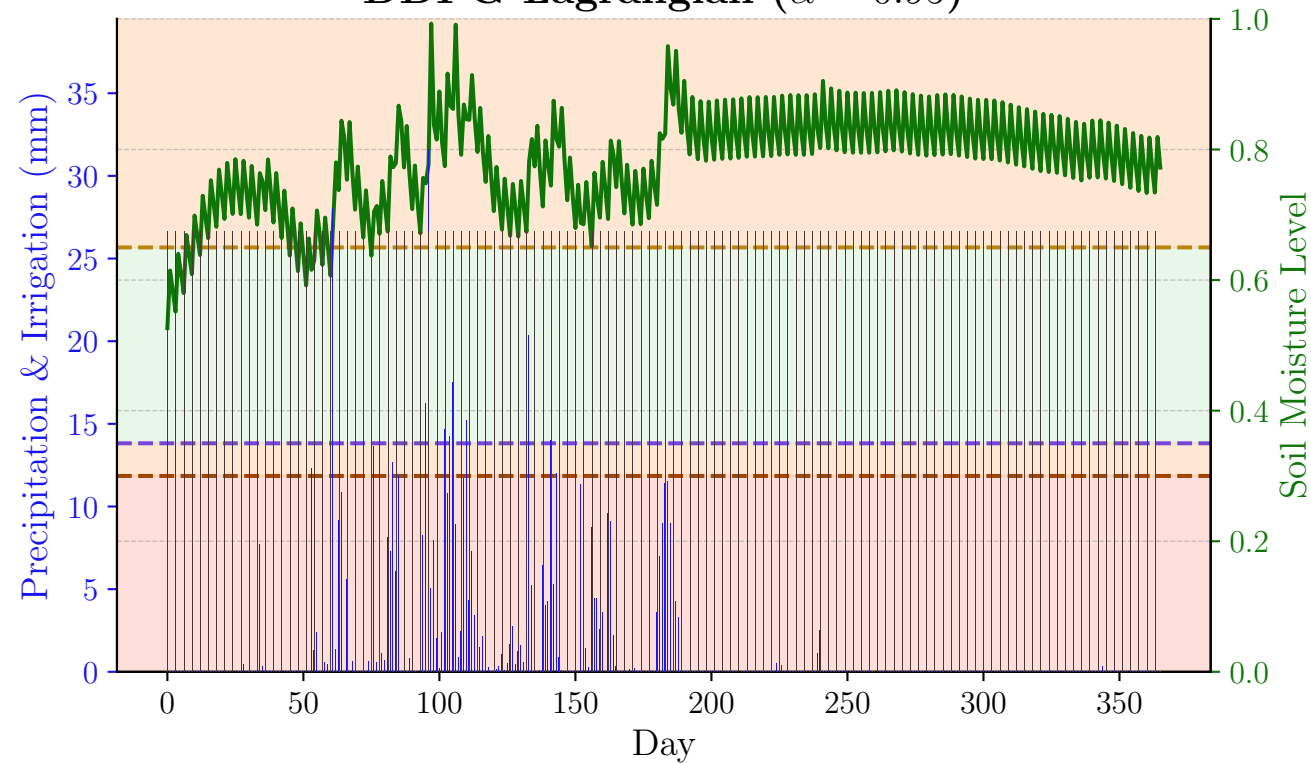
## DDPG (Regular)



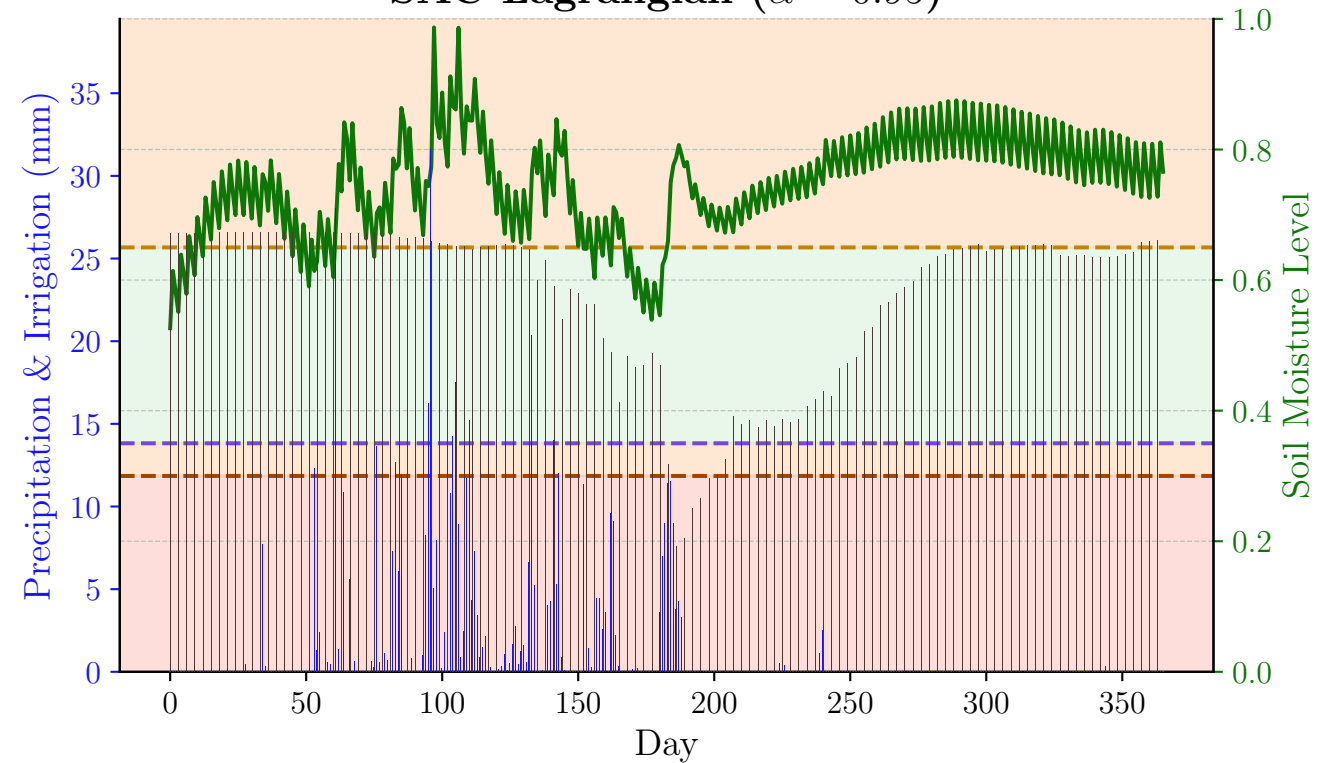
## SAC (Regular)



## DDPG Lagrangian ( $\alpha = 0.95$ )



## SAC Lagrangian ( $\alpha = 0.95$ )



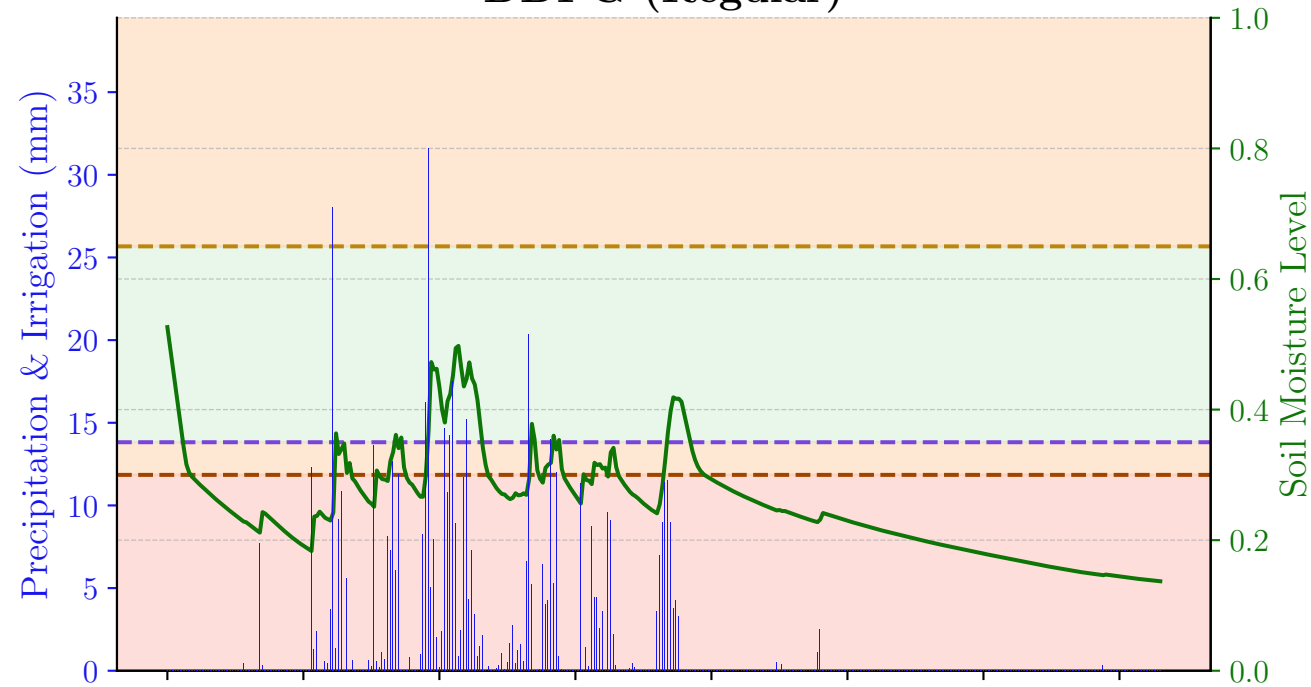
— Soil Moisture    ■ Rainfall (mm)    ■ Irrigation (mm)

--- Field Capacity ( $s_{fc} = 0.65$ )    --- Water Stress Point ( $s^* = 0.35$ )    --- Permanent Wilting Point ( $s_w = 0.3$ )

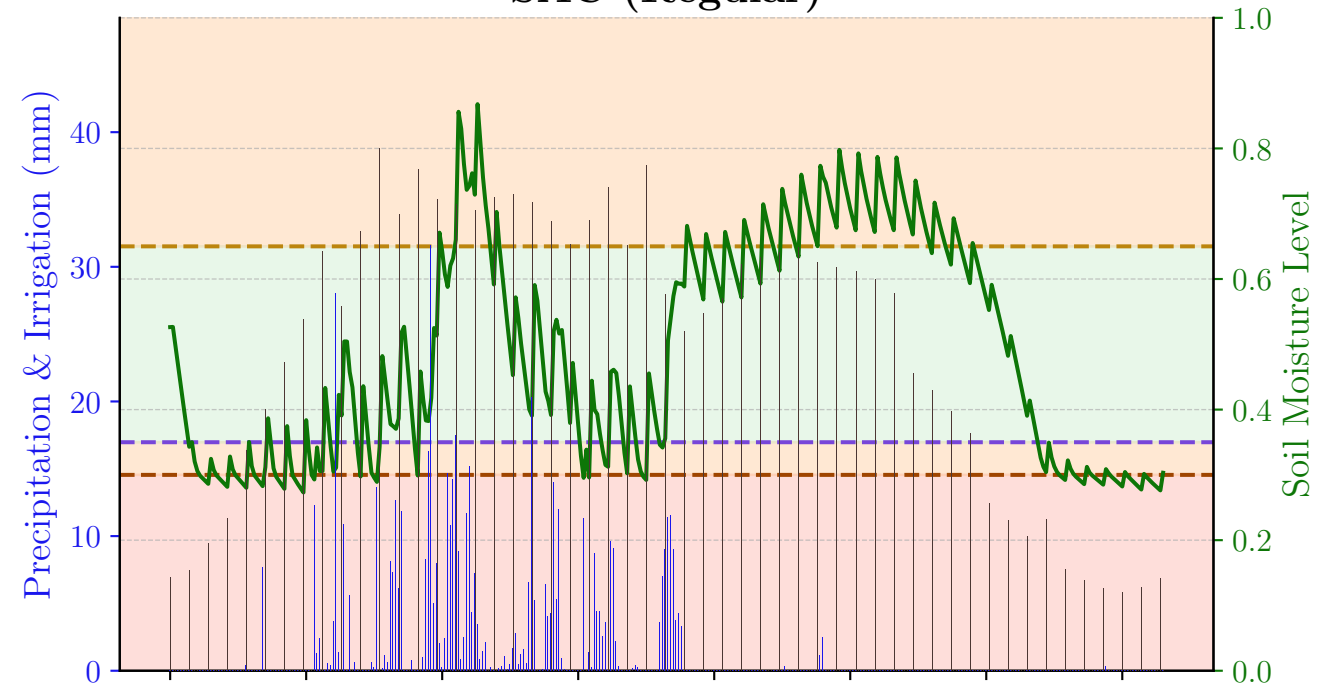
■ Feasible Region    ■ Chance-Constrained Region    ■ Hard-Constrained Region

# Model Performance During Evaluation, Seed 59 ( $d = 7$ )

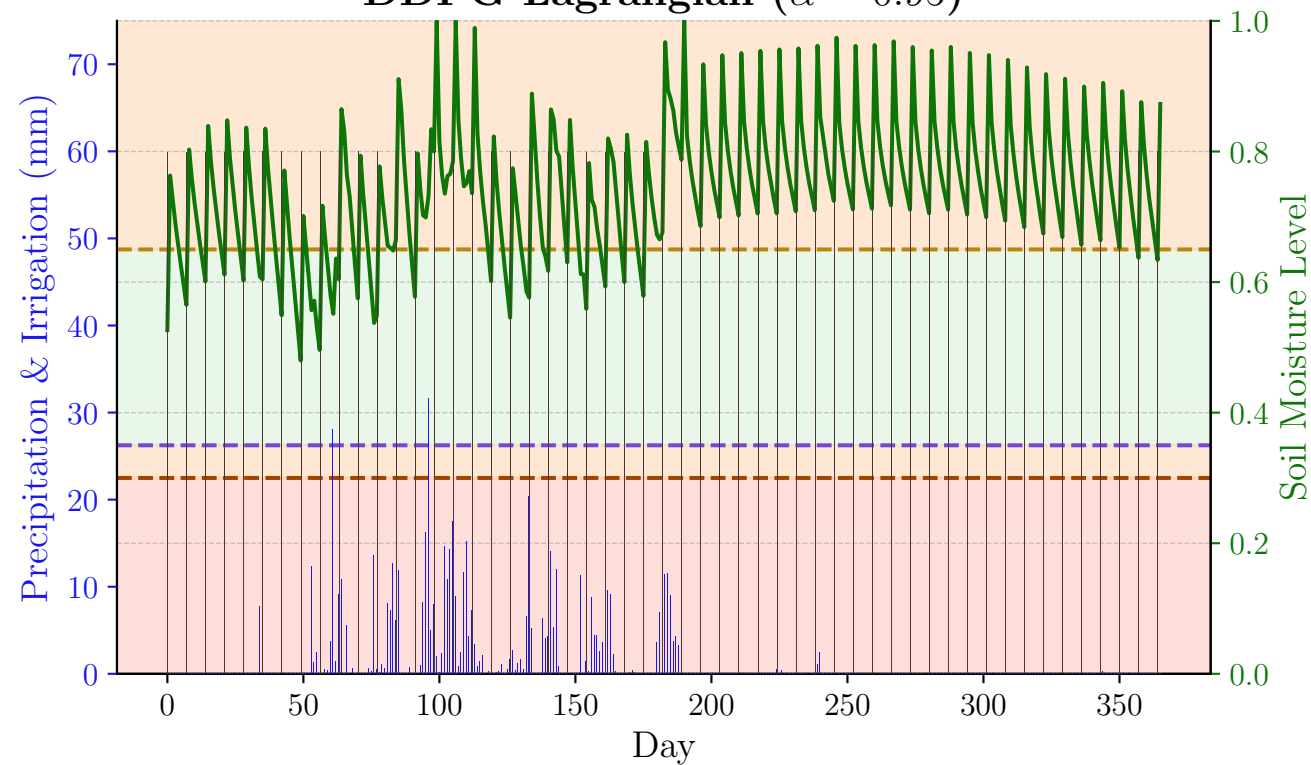
## DDPG (Regular)



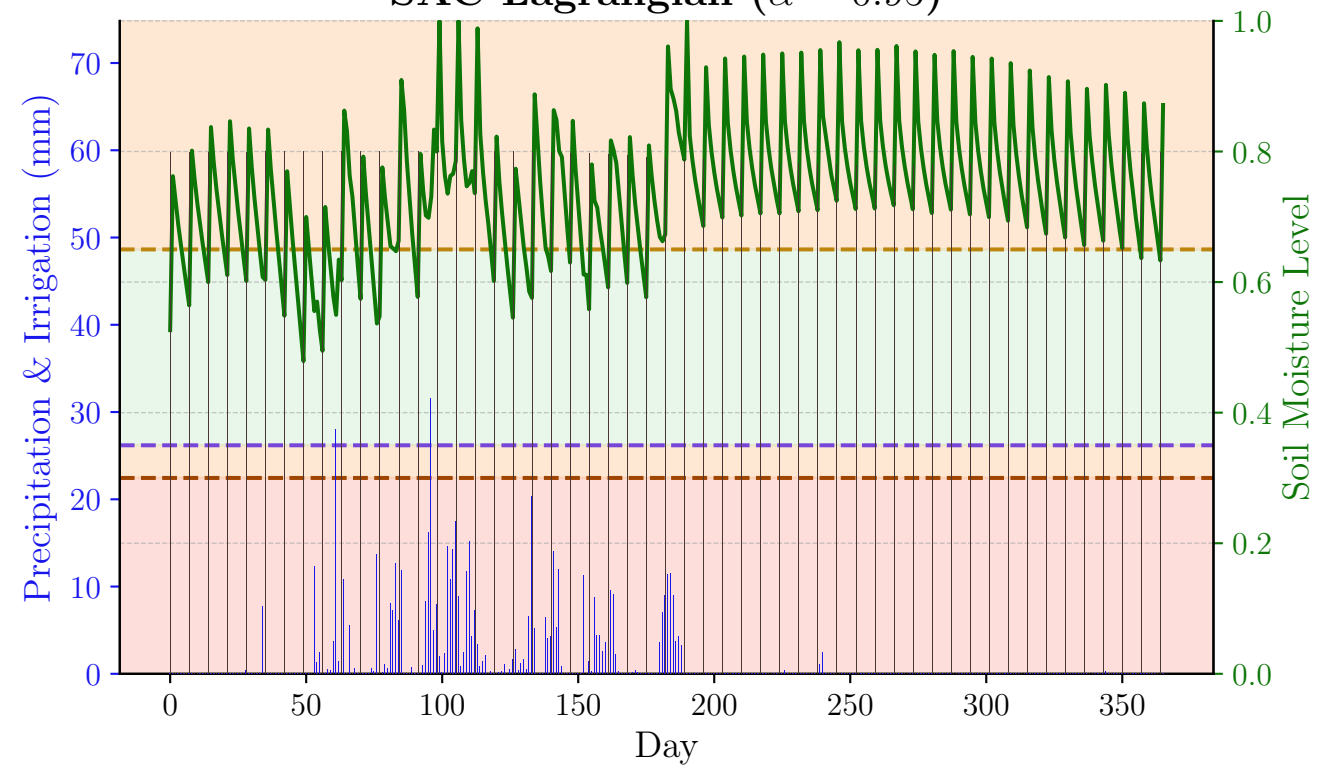
## SAC (Regular)



## DDPG Lagrangian ( $\alpha = 0.95$ )



## SAC Lagrangian ( $\alpha = 0.95$ )



— Soil Moisture    ■ Rainfall (mm)    ■ Irrigation (mm)

--- Field Capacity ( $s_{fc} = 0.65$ )    --- Water Stress Point ( $s^* = 0.35$ )    --- Permanent Wilting Point ( $s_w = 0.3$ )

■ Feasible Region    ■ Chance-Constrained Region    ■ Hard-Constrained Region