

# Assessment of Climate Change on Sunflower Production Using the Aquacrop Model in the Konya Basin of Türkiye

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Phenological growth stages	Observed	Simulated	Model Error (day)
Emergence (DAP)	18	13	-5
Starburst (DAP)	71	66	-5
Maturity (DAP)	133	127	-6

Statistical Analysis for Sunflower Yield								
Treatment	Year	RE (%)	RMAE (%)	RMSE (kg/ha)	NRMSE (%)	d-Index	d1-Index	EF
Rainfed	2015	-2.3	-0.24	45.12	2.10	0.97	0.87	0.91
	2016	1.8						
Irrigated	2015	-12.8	-9.60	430.54	10.55	0.97	0.87	0.91
	2016	-6.3						

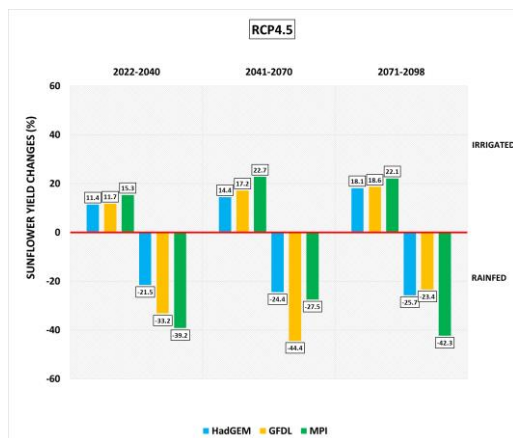
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RCP4.5

## Yield Projections

RCP8.5

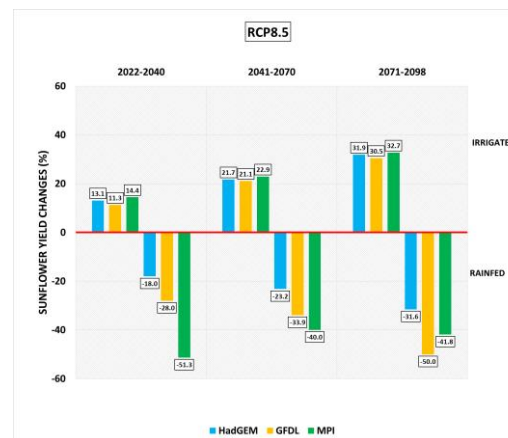
Rainfed  
21-44 %



Irrigated  
11-23 %



Rainfed  
18-51 %



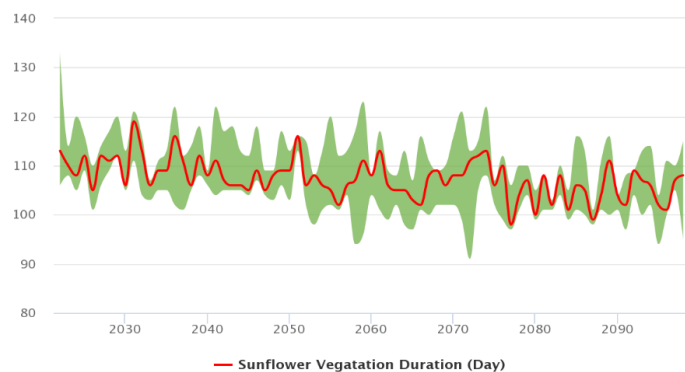
Irrigated  
10-33 %

RCP4.5

## Vegetation Duration Projections

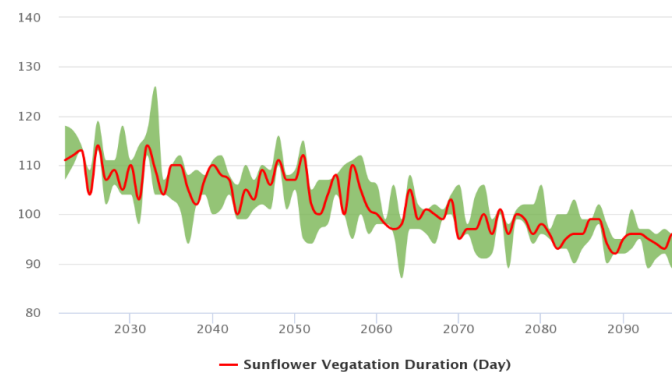
RCP8.5

Sunflower Vegetation Duration Changes (RCP4.5)



shortened between 11-22 days

Sunflower Vegetation Duration Changes (RCP8.5)



shortened between 18-26 days

Poster Session 6.2



Thank you for your  
attention

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