Table 1: Results of the 8 Models with OLS, Fixed Effects, and Random Effects Regressions

Model 1: Yield and June climate

	Yield (Bu/Acre)		
	OLS	**FE Model**	RE Model
prcp_6	0.051***	0.051***	0.057***
	(0.015)	(0.014)	(0.014)
tmean_6	-1.434***	-4.342***	-3.013***
	(0.331)	(0.735)	(0.565)
price_last	-3.235***	-3.339***	-3.553***
	(1.050)	(0.906)	(0.912)
acre	2.929***	-2.851	2.335***
	(0.271)	(2.117)	(0.638)
income_cat	0.516	-0.089	0.239
	(0.745)	(0.651)	(0.656)
time_trend	2.072***	2.596***	2.264***
	(0.263)	(0.243)	(0.232)
Constant	-3,998.499***		-4,346.284***
	(523.636)		(459.359)
Observations	341	341	341
R2	0.453	0.406	0.388
Adjusted R2	0.444	0.378	0.380
Note:		*p<0.1; **p<0.05; ***p<0.01	

Model 2: Yield and July climate

	Yield (Bu/Acre)		
	OLS	**FE Model**	RE Model
prcp_7	0.045***	0.058***	0.060***
	(0.017)	(0.015)	(0.016)
tmean_7	-2.185***	-5.200***	-4.363***
	(0.329)	(0.518)	(0.467)
price_last	-3.355***	-3.631***	-3.826***
	(1.020)	(0.847)	(0.856)
acre	3.157***	-1.812	2.679***
	(0.259)	(1.975)	(0.642)
income_cat	0.511	-0.296	0.044
	(0.717)	(0.606)	(0.613)
time_trend	2.130***	2.576***	2.339***
	(0.256)	(0.223)	(0.215)
Constant	-4,091.591***		-4,455.995***
	(510.438)		(428.182)
Observations	341	341	341
R2	0.484	0.484	0.458
Adjusted R2	0.474	0.450	0.449
Note:		*p<0.1; **p<0.05; ***p<0.01	

Model 3: Yield and June&July climate

	Yield (Bu/Acre)		
	OLS	**FE Model**	RE Model
prcp_6	0.035**	0.028**	0.038***
	(0.015)	(0.013)	(0.014)
tmean_6	1.282**	-2.298***	-0.709
	(0.611)	(0.718)	(0.644)
prcp_7	0.033*	0.051***	0.053***
	(0.017)	(0.015)	(0.016)
tmean_7	-3.310***	-4.218***	-3.699***
	(0.622)	(0.561)	(0.564)
price_last	-3.576***	-3.627***	-3.780***
	(1.010)	(0.828)	(0.850)
acre	3.151***	-1.694	2.569***
	(0.262)	(1.936)	(0.616)
income_cat	0.149	-0.239	0.041
	(0.717)	(0.594)	(0.610)
time_trend	2.082***	2.633***	2.304***
	(0.253)	(0.222)	(0.216)
Constant	-3,997.621***		-4,389.944***
	(504.506)		(428.789)
Observations	341	341	341
R2	0.501	0.510	0.472
Adjusted R2	0.488	0.471	0.460

Note: *p<0.1; **p<0.05; ***p<0.01

Model 4: Yield and May to Aug climate

	Yield (Bu/Acre)		
	OLS	FE Model	**RE Model**
prcp_5	0.0003	-0.015	-0.003
	(0.017)	(0.015)	(0.015)
tmean_5	2.566***	1.239**	1.710***
	(0.512)	(0.496)	(0.473)
prcp_6	0.031**	0.032**	0.039***
	(0.015)	(0.013)	(0.013)
tmean_6	-0.487	-2.131***	-1.265*
	(0.751)	(0.733)	(0.695)
prcp_7	0.029*	0.050***	0.050***
	(0.017)	(0.015)	(0.015)
tmean_7	-4.167***	-4.139***	-4.049***
	(0.672)	(0.578)	(0.589)
prcp_8	-0.012	0.009	0.008
	(0.018)	(0.015)	(0.016)
tmean_8	0.091	-1.067*	-0.495
	(0.682)	(0.610)	(0.606)
price_last	-3.892***	-3.698***	-3.868***
	(1.021)	(0.862)	(0.869)
acre	3.434***	-2.557	2.523***
	(0.263)	(1.939)	(0.679)
income_cat	-0.081	-0.460	-0.126
	(0.702)	(0.594)	(0.601)
time_trend	2.117***	2.579***	2.250***
	(0.251)	(0.226)	(0.218)
Constant	-4,050.398***		-4,275.710***
	(500.820)		(432.407)
Observations	341	341	341
R2	0.539	0.526	0.498
Adjusted R2	0.519	0.480	0.479

Model 5: Production and June climate

	Production (Bu)		
	OLS	**FE Model**	RE Model
prcp_6	0.317***	0.281***	0.353***
	(0.098)	(0.096)	(0.094)
tmean_6	-0.523	-24.593***	-10.038***
	(2.102)	(4.907)	(3.453)
price_last	-19.098***	-22.918***	-21.335***
	(6.666)	(6.050)	(6.080)
acre	156.235***	154.913***	154.995***
	(1.719)	(14.142)	(3.587)
income_cat	0.716	-0.361	0.220
	(4.731)	(4.347)	(4.366)
time_trend	9.094***	11.321***	10.074***
	(1.669)	(1.623)	(1.536)
Constant	-18,281.850***		-20,035.190***
	(3,324.674)		(3,050.675)
Observations	341	341	341
R2	0.964	0.554	0.866
Adjusted R2	0.944	0.515	0.848
Note:		*p<0.1; **p<0.05; ***p<0.01	

Model 6: Production and July climate

	Production (Bu)		
	OLS	**FE Model**	RE Model
prcp_7	0.260**	0.160	0.200*
	(0.112)	(0.106)	(0.107)
tmean_7	-5.659***	-29.568***	-19.455***
	(2.147)	(3.570)	(3.060)
price_last	-18.490***	-23.931***	-22.112***
	(6.657)	(5.836)	(5.928)
acre	157.110***	159.869***	156.763***
	(1.692)	(13.612)	(3.656)
income_cat	2.228	-1.474	-0.127
	(4.684)	(4.179)	(4.238)
time_trend	9.483***	11.084***	10.610***
	(1.672)	(1.539)	(1.487)
Constant	-18,938.460***		-20,846.310***
	(3,332.667)		(2,959.157)
Observations	341	341	341
R2	0.964	0.587	0.863
Adjusted R2	0.944	0.545	0.845
Note:		*p<0.1; **p<0.05; ***p<0.01	

Model 7: Production and June&July climate

	Production (Bu)		
	OLS	**FE Model**	RE Model
prcp_6	0.237**	0.167*	0.286***
	(0.098)	(0.093)	(0.094)
tmean_6	14.736***	-13.458***	5.410
	(3.924)	(4.987)	(4.171)
prcp_7	0.160	0.116	0.160
	(0.112)	(0.105)	(0.108)
tmean_7	-18.546***	-23.774***	-18.318***
	(3.998)	(3.892)	(3.890)
price_last	-20.893***	-23.896***	-21.826***
	(6.486)	(5.747)	(5.971)
acre	157.474***	160.528***	156.462***
	(1.686)	(13.436)	(3.005)
income_cat	-1.284	-1.147	-0.690
	(4.606)	(4.120)	(4.277)
time_trend	9.116***	11.412***	9.833***
	(1.626)	(1.539)	(1.506)
Constant	-18,209.430***		-19,454.410***
	(3,240.393)		(2,994.583)
Observations	341	341	341
R2	0.966	0.602	0.901
Adjusted R2	0.941	0.556	0.877

Note: *p<0.1; **p<0.05; ***p<0.01

Model 8: Production and May to Aug climate

	Production (Bu)		
	OLS	**FE Model**	RE Model
prcp_5	0.028	-0.026	0.048
	(0.107)	(0.104)	(0.104)
tmean_5	16.902***	4.378	12.357***
	(3.240)	(3.468)	(3.193)
prcp_6	0.177*	0.184*	0.250***
	(0.095)	(0.093)	(0.092)
tmean_6	-0.567	-13.311***	-2.673
	(4.758)	(5.129)	(4.660)
prcp_7	0.100	0.112	0.122
	(0.111)	(0.106)	(0.108)
tmean_7	-24.808***	-23.600***	-22.965***
	(4.254)	(4.044)	(4.105)
prcp_8	0.185	0.209*	0.230**
	(0.113)	(0.108)	(0.109)
tmean_8	4.521	-0.693	4.524
	(4.320)	(4.266)	(4.172)
price_last	-19.431***	-21.341***	-18.999***
	(6.464)	(6.032)	(6.099)
acre	158.928***	156.507***	157.589***
	(1.668)	(13.568)	(2.747)
income_cat	-2.221	-1.296	-0.859
	(4.446)	(4.157)	(4.217)
time_trend	8.718***	10.610***	8.931***
	(1.592)	(1.582)	(1.511)
Constant	-17,329.510***		-17,698.800***
	(3,170.899)		(3,004.871)
Observations	341	341	341
R2	0.970	0.609	0.919
Adjusted R2	0.933	0.556	0.884