

Table 1: Cross-section Regression Models explaining Crop Revenue per Acre

	Log(Corn Rev) Cross-section	Log(Cotton Rev) Cross-section	Log(Hay Rev) Cross-section	Log(Wheat Rev) Cross-section	Log(Soybean Rev) Cross-section
	(1)	(2)	(3)	(4)	(5)
Avg. Temperature	-6.44*** (0.65)	-10.06*** (2.50)	-5.80*** (0.79)	0.52 (0.54)	-3.51*** (0.64)
Avg. Temperature Squared	-0.34*** (0.07)	1.10*** (0.30)	-0.84*** (0.07)	-0.01 (0.04)	-0.49*** (0.06)
Precipitation	-0.23 (0.17)	0.01 (0.31)	-1.51*** (0.21)	-0.23* (0.12)	0.11 (0.14)
Precipitation Squared	-0.09*** (0.02)	-0.07** (0.03)	-0.26*** (0.02)	-0.18*** (0.01)	-0.09*** (0.01)
Latitude	-5.52*** (0.54)	-8.02*** (1.21)	-5.45*** (0.61)	3.15*** (0.41)	-1.96*** (0.54)
Income per Capita	0.00*** (0.00)	0.00 (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)
Population Density	-0.01*** (0.00)	-0.02*** (0.01)	-0.01** (0.00)	-0.00 (0.00)	-0.01*** (0.00)
Population Density Squared	0.00*** (0.00)	0.00*** (0.00)	0.00 (0.00)	0.00 (0.00)	0.00*** (0.00)
Water Capacity	2.69*** (0.24)	2.79*** (0.80)	4.28*** (0.29)	1.57*** (0.22)	3.88*** (0.23)
Percent Clay	-0.16*** (0.06)	0.93*** (0.10)	-0.39*** (0.07)	0.28*** (0.04)	0.20*** (0.05)
Minimum Permeability	2.20*** (0.41)	6.55*** (1.66)	-3.87*** (0.47)	1.62*** (0.34)	1.56*** (0.41)
K-factor of Top Soil	-64.95*** (9.17)	9.21 (19.79)	-105.60*** (12.60)	12.65* (7.47)	-99.77*** (7.28)
Best Soil Class	0.32*** (0.02)	0.06 (0.05)	0.25*** (0.03)	0.10*** (0.02)	0.12*** (0.02)
Weights	Acres	Acres	Acres	Acres	Acres
Fixed-effect	State	State	State	State	State
Observations	2,268	762	1,842	2,184	2,073
R ²	0.30	0.41	0.40	0.33	0.33
Adjusted R ²	0.29	0.40	0.40	0.33	0.32

Notes:

All coefficients multiplied by 100

Table 2: Cross-section Regression Models explaining Crop Revenue per Acre

	Log(Corn Rev) Cross-section	Log(Cotton Rev) Cross-section	Log(Hay Rev) Cross-section	Log(Wheat Rev) Cross-section	Log(Soybean Rev) Cross-section
	(1)	(2)	(3)	(4)	(5)
Degree Days (10-30C)	−0.03*** (0.00)	−0.02 (0.02)	−0.04*** (0.01)	0.03*** (0.00)	0.00 (0.00)
Degree Days (10-30C) Squared	−0.00* (0.00)	0.00*** (0.00)	−0.00*** (0.00)	0.00 (0.00)	−0.00** (0.00)
Degree Days (30C)	−0.11** (0.05)	−0.18*** (0.07)	0.04 (0.05)	−0.18*** (0.03)	−0.33*** (0.04)
Precipitation	−0.41** (0.19)	−0.52 (0.36)	−1.40*** (0.23)	−0.82*** (0.15)	−0.46*** (0.16)
Precipitation Squared	−0.09*** (0.02)	−0.03 (0.03)	−0.28*** (0.02)	−0.18*** (0.01)	−0.12*** (0.01)
Latitude	−5.45*** (0.51)	−6.72*** (1.32)	−5.74*** (0.59)	4.55*** (0.41)	−1.80*** (0.51)
Income per Capita	0.00*** (0.00)	0.00 (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)
Population Density	−0.01*** (0.00)	−0.02** (0.01)	−0.01* (0.00)	−0.00** (0.00)	−0.01*** (0.00)
Population Density Squared	0.00*** (0.00)	0.00** (0.00)	0.00 (0.00)	0.00 (0.00)	0.00*** (0.00)
Water Capacity	2.74*** (0.24)	2.51*** (0.80)	4.28*** (0.29)	1.39*** (0.22)	3.84*** (0.23)
Percent Clay	−0.14** (0.06)	0.91*** (0.10)	−0.38*** (0.07)	0.23*** (0.04)	0.19*** (0.05)
Minimum Permeability	2.23*** (0.41)	6.73*** (1.66)	−3.82*** (0.47)	1.64*** (0.34)	1.34*** (0.41)
K-factor of Top Soil	−65.33*** (9.20)	13.67 (19.74)	−107.52*** (12.75)	16.37** (7.41)	−104.46*** (7.31)
Best Soil Class	0.32*** (0.02)	0.08 (0.05)	0.25*** (0.03)	0.12*** (0.02)	0.12*** (0.02)
Weights	Acres	Acres	Acres	Acres	Acres
Fixed-effect	State	State	State	State	State
Observations	2,268	762	1,842	2,184	2,073
R ²	0.30	0.42	0.39	0.35	0.33
Adjusted R ²	0.29	0.40	0.39	0.35	0.33

Notes:

All coefficients multiplied by 100

Table 3: Cross-section Regression Models explaining Proportion of Acres by Crop

	Corn Acres Cross-section	Cotton Acres Cross-section	Hay Acres Cross-section	Wheat Acres Cross-section	Soybean Acres Cross-section
	(1)	(2)	(3)	(4)	(5)
Avg. Temperature	-0.34 (0.22)	1.13*** (0.25)	-0.15* (0.08)	0.87 (0.79)	1.17*** (0.39)
Avg. Temperature Squared	0.06 (0.06)	-0.25*** (0.06)	0.03 (0.02)	-0.13 (0.20)	-0.31*** (0.10)
Precipitation	0.03 (0.02)	0.02 (0.03)	0.01 (0.01)	0.14* (0.08)	0.07* (0.04)
Precipitation Squared	0.00 (0.00)	0.01** (0.00)	-0.00*** (0.00)	-0.01 (0.01)	0.01 (0.01)
Latitude	0.16 (0.11)	-0.10 (0.13)	0.01 (0.04)	-0.13 (0.40)	0.04 (0.20)
Income per Capita	0.00 (0.00)	-0.00** (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
Population Density	-0.00 (0.00)	0.00 (0.00)	0.00*** (0.00)	0.00 (0.00)	0.00 (0.00)
Population Density Squared	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00** (0.00)	0.00 (0.00)
Water Capacity	0.04 (0.04)	-0.13*** (0.05)	-0.00 (0.02)	-0.03 (0.16)	0.05 (0.08)
Percent Clay	-0.01 (0.01)	0.01 (0.01)	-0.00 (0.00)	0.02 (0.03)	0.02 (0.02)
Minimum Permeability	0.03 (0.04)	0.01 (0.05)	-0.03* (0.02)	0.41*** (0.15)	0.02 (0.07)
K-factor of Top Soil	-1.25 (1.17)	0.55 (1.29)	0.45 (0.44)	11.39*** (4.13)	-4.47** (2.06)
Best Soil Class	0.01** (0.00)	0.02*** (0.00)	-0.00** (0.00)	0.02 (0.01)	0.02** (0.01)
Weights	Total Acres	Total Acres	Total Acres	Total Acres	Total Acres
Fixed-effect	State	State	State	State	State
Observations	61	61	61	61	61
R ²	0.42	0.63	0.66	0.42	0.41
Adjusted R ²	0.26	0.53	0.57	0.26	0.24

Notes:

All coefficients multiplied by 100

Table 4: Cross-section Regression Models explaining Proportion of Acres by Crop

	Corn Acres Cross-section	Cotton Acres Cross-section	Hay Acres Cross-section	Wheat Acres Cross-section	Soybean Acres Cross-section
	(1)	(2)	(3)	(4)	(5)
Degree Days (10-30C)	-0.00 (0.00)	0.01*** (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.01*** (0.00)
Degree Days (10-30C) Squared	0.00 (0.00)	-0.00*** (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00*** (0.00)
Degree Days (30C)	-0.02*** (0.01)	-0.01 (0.01)	-0.00 (0.00)	0.08*** (0.02)	-0.03** (0.01)
Precipitation	0.01 (0.02)	0.01 (0.03)	0.01 (0.01)	0.21*** (0.08)	0.05 (0.04)
Precipitation Squared	-0.00 (0.00)	0.01** (0.00)	-0.00*** (0.00)	-0.01 (0.01)	0.01 (0.01)
Latitude	0.18* (0.10)	-0.14 (0.12)	0.02 (0.04)	-0.21 (0.34)	0.03 (0.19)
Income per Capita	0.00 (0.00)	-0.00** (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Population Density	-0.00 (0.00)	0.00 (0.00)	0.00*** (0.00)	0.00 (0.00)	0.00 (0.00)
Population Density Squared	0.00** (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00** (0.00)
Water Capacity	0.02 (0.04)	-0.13** (0.05)	-0.01 (0.02)	0.07 (0.14)	0.02 (0.08)
Percent Clay	-0.02** (0.01)	0.00 (0.01)	-0.01 (0.00)	0.07** (0.03)	0.00 (0.02)
Minimum Permeability	0.01 (0.04)	0.00 (0.05)	-0.03** (0.02)	0.53*** (0.14)	-0.01 (0.07)
K-factor of Top Soil	-0.65 (1.11)	0.89 (1.36)	0.48 (0.46)	8.75** (3.78)	-3.43* (2.05)
Best Soil Class	0.01** (0.00)	0.02*** (0.00)	-0.00** (0.00)	0.02 (0.01)	0.02** (0.01)
Weights	Acres	Acres	Acres	Acres	Acres
Fixed-effect	State	State	State	State	State
Observations	61	61	61	61	61
R ²	0.50	0.62	0.66	0.54	0.45
Adjusted R ²	0.36	0.50	0.55	0.41	0.28

Notes:

All coefficients multiplied by 100