

Micheal's Regression Tables

Mitch Roznik

2/2/2020

Regression Results for Four Crops

The integration start dates are based on start dates of 70% planting progress, and end dates according to growing degree days.

Corn

Corn table

Table 1:

	Corn Yield	
	Integrated NDVI	Max NDVI
	(1)	(2)
NDVI	106.608*** (3.544)	-1,769.978*** (69.445)
NDVI-squared	-7.281*** (0.286)	1,509.291*** (44.649)
Constant	-172.820*** (12.362)	632.934*** (27.485)
<i>N</i>	6,422	6,929
R^2	0.578	0.785
Adjusted R^2	0.543	0.767
Residual Std. Error	21.153 (df = 5926)	15.016 (df = 6394)
F Statistic	16.388*** (df = 495; 5926)	43.760*** (df = 534; 6394)

Notes:

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Soybeans

Soybean table

Table 2:

	Soybean Yield	
	Integrated NDVI	Max NDVI
	(1)	(2)
NDVI	12.519*** (0.800)	-257.613*** (23.198)
NDVI-squared	-1.301*** (0.100)	251.170*** (14.658)
Constant	25.570*** (2.340)	92.499*** (9.329)
<i>N</i>	7,280	7,345
R^2	0.573	0.771
Adjusted R^2	0.537	0.752
Residual Std. Error	6.656 (df = 6718)	4.950 (df = 6778)
F Statistic	16.058*** (df = 561; 6718)	40.383*** (df = 566; 6778)

Notes:

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Winter Wheat

Winter wheat table

Table 3:

	Winter-Wheat Yield	
	Integrated NDVI	Max NDVI
	(1)	(2)
NDVI	−0.488 (3.358)	163.705*** (27.343)
NDVI-squared	0.042 (1.010)	−75.077*** (21.378)
Constant	56.867*** (3.751)	−19.338** (9.263)
N	1,807	1,807
R^2	0.753	0.791
Adjusted R^2	0.732	0.773
Residual Std. Error (df = 1666)	9.658	8.886
F Statistic (df = 140; 1666)	36.270***	44.995***

Notes:

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Spring Wheat

Spring wheat table

Table 4:

	Spring-Wheat Yield Integrated NDVI	Yield Max NDVI
	(1)	(2)
NDVI	76.225*** (19.484)	79.227 (90.403)
NDVI-squared	-14.413*** (4.633)	13.513 (64.918)
Constant	-36.167* (20.103)	-17.612 (30.704)
N	286	286
R^2	0.221	0.422
Adjusted R^2	0.213	0.416
Residual Std. Error (df = 282)	10.496	9.042
F Statistic (df = 3; 282)	26.732***	68.700***

Notes:

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.