

Table 49. Nearest neighbor percent composition for Well 3-Colorado location.

Cover Class	Well 2 North Transect		Well 2 South Transect		Well 2 East Transect		Well 2 West Transect	
	2000	2001	2000	2001	2000	2001	2000	2001
Grass	35.00	85.00	65.00	85.00	75.00	80.00	55.00	65.00
Woody	10.00	10.00	0.0	15.00	10.00	20.00	25.00	35.00
Forb	55.00	5.00	35.00	0.0	15.00	0.0	20.00	0.0
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 50. Number of woody plants per acre at the Colorado location.

Year	North Transect		South Transect		East Transect		West Transect	
	2000	2001	2000	2001	2000	2001	2000	2001
Well 1	2884	4530	12356	11943	6178	4942	17710	21417
Well 2	20594	18533	7824	7826	10297	13591	11943	9884
Well 3	1648	2058	6178	8649	10707	17298	11120	16062

Table 51. Ground cover percent composition for Site A-Pecos location.

Cover Class	Well 1		Well 2		Well 3	
	2000	2001	2000	2001	2000	2001
Bareground	9.52	5.26	7.41	24.00	34.38	27.59
Litter	85.71	89.47	77.77	56.00	62.5	72.41
Grass	0.0	0.0	11.11	16.00	3.12	0.0
Woody	0.0	5.26	3.70	4.00	0.0	0.0
Forb	4.76	0.0	0.0	0.0	0.0	0.0
Total	99.99	99.99	99.99	100.00	100.00	100.00

Table 52. Nearest neighbor percent composition for Site A-Pecos location.

Cover Class	Well 1		Well 2		Well 3	
Year	2000	2001	2000	2001	2000	2001
Grass	38.09	5.26	55.55	72.00	71.89	58.80
Woody	28.57	68.42	25.92	24.00	18.75	37.93
Forb	33.33	26.32	18.50	4.00	9.39	3.45
Total	99.99	100.00	99.97	100.00	100.03	100.18

Table 53. Ground cover percent composition for Site B-Pecos location.

Cover Class	Well 1		Well 2		Well 3	
Year	2000	2001	2000	2001	2000	2001
Bareground	40.74	24.00	62.50	51.72	65.22	28.57
Litter	25.93	72.00	34.38	48.28	30.43	71.43
Grass	33.33	4.00	3.13	0.0	0.0	0.0
Woody	0.0	0.0	0.0	0.0	4.35	0.0
Forb	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.00	100.00	100.01	100.00	100.00	100.00

Table 54. Nearest neighbor percent composition for Site B-Pecos location.

Cover Class	Well 1		Well 2		Well 3	
Year	2000	2001	2000	2001	2000	2001
Grass	77.77	68.00	75.02	24.14	69.56	52.38
Woody	3.70	12.00	18.75	48.28	17.40	33.34
Forb	18.52	20.00	6.26	27.59	13.05	14.28
Total	99.99	100.00	100.03	100.01	100.01	100.00

APPENDIX B

Pecos Location

The regression equation is

$$\text{Pecos River A} = 0.383 + 0.783 \text{ Pecos W1 A}$$

Predictor	Coef	StDev	T	P
Constant	0.38348	0.02976	12.89	0.000
Pecos W1	0.783070	0.006276	124.77	0.000

$$S = 0.3687 \quad R\text{-Sq} = 79.9\% \quad R\text{-Sq}(\text{adj}) = 79.9\%$$

The regression equation is

$$\text{Pecos River A} = 0.0072 + 1.02 \text{ Pecos W2 A}$$

Predictor	Coef	StDev	T	P
Constant	0.00717	0.04279	0.17	0.867
Pecos W2	1.01550	0.01067	95.21	0.000

$$S = 0.4518 \quad R\text{-Sq} = 69.9\% \quad R\text{-Sq}(\text{adj}) = 69.9\%$$

The regression equation is

$$\text{Pecos River A} = 7.05 - 0.754 \text{ Pecos W5 A}$$

Predictor	Coef	StDev	T	P
Constant	7.0512	0.1500	47.00	0.000
Pecos W5	-0.75370	0.03722	-20.25	0.000

$$S = 0.7829 \quad R\text{-Sq} = 9.5\% \quad R\text{-Sq}(\text{adj}) = 9.5\%$$

The regression equation is

$$\text{Pecos River A} = -1.61 + 0.769 \text{ Pecos River B}$$

Predictor	Coef	StDev	T	P
Constant	-1.61303	0.01479	-109.07	0.000
Pecos Ri	0.768823	0.001997	385.04	0.000

$$S = 0.1319 \quad R\text{-Sq} = 97.4\% \quad R\text{-Sq}(\text{adj}) = 97.4\%$$

The regression equation is

$$\text{Pecos River A} = 1.48 + 0.601 \text{ Pecos W1 B}$$

Predictor	Coef	StDev	T	P
Constant	1.48359	0.02149	69.05	0.000
Pecos W1	0.600913	0.004884	123.03	0.000

$$S = 0.3729 \quad R\text{-Sq} = 79.5\% \quad R\text{-Sq}(\text{adj}) = 79.5\%$$

The regression equation is

$$\text{Pecos River A} = 1.71 + 0.666 \text{ Pecos W2 B}$$

Predictor	Coef	StDev	T	P
Constant	1.71411	0.02128	80.56	0.000
Pecos W2	0.666309	0.005861	113.69	0.000

$$S = 0.3966 \quad R\text{-Sq} = 76.8\% \quad R\text{-Sq}(\text{adj}) = 76.8\%$$

The regression equation is

$$\text{Pecos River A} = 2.88 + 0.375 \text{ Pecos W3 B}$$

3606 cases used 306 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	2.88073	0.01249	230.60	0.000
Pecos W3	0.375490	0.003363	111.67	0.000

$$S = 0.3924 \quad R\text{-Sq} = 77.6\% \quad R\text{-Sq}(\text{adj}) = 77.6\%$$

The regression equation is

$$\text{Pecos River A} = 0.731 + 0.837 \text{ Pecos W5 B}$$

Predictor	Coef	StDev	T	P
Constant	0.73110	0.02577	28.37	0.000
Pecos W5	0.837472	0.006395	130.95	0.000

$$S = 0.3546 \quad R\text{-Sq} = 81.4\% \quad R\text{-Sq}(\text{adj}) = 81.4\%$$

The regression equation is

$$\text{Pecos W1 A} = -0.731 + 1.36 \text{ Pecos W2 A}$$

Predictor	Coef	StDev	T	P
Constant	-0.73051	0.01748	-41.78	0.000
Pecos W2	1.36002	0.00436	312.11	0.000

$$S = 0.1846 \quad R\text{-Sq} = 96.1\% \quad R\text{-Sq}(\text{adj}) = 96.1\%$$

The regression equation is

$$\text{Pecos W1 A} = 8.40 - 0.934 \text{ Pecos W5 A}$$

Predictor	Coef	StDev	T	P
Constant	8.3991	0.1697	49.50	0.000
Pecos W5	-0.93367	0.04209	-22.18	0.000

$$S = 0.8855 \quad R\text{-Sq} = 11.2\% \quad R\text{-Sq}(\text{adj}) = 11.2\%$$

The regression equation is

$$\text{Pecos W1 A} = -1.09 + 0.783 \text{ Pecos River B}$$

Predictor	Coef	StDev	T	P
Constant	-1.08889	0.05003	-21.77	0.000
Pecos Ri	0.782558	0.006754	115.86	0.000

$$S = 0.4462 \quad R\text{-Sq} = 77.4\% \quad R\text{-Sq}(\text{adj}) = 77.4\%$$

The regression equation is

$$\text{Pecos W1 A} = 1.49 + 0.748 \text{ Pecos W1 B}$$

Predictor	Coef	StDev	T	P
Constant	1.48504	0.01261	117.78	0.000
Pecos W1	0.748411	0.002866	261.11	0.000

$$S = 0.2188 \quad R\text{-Sq} = 94.6\% \quad R\text{-Sq}(\text{adj}) = 94.6\%$$

The regression equation is

$$\text{Pecos W1 A} = 1.70 + 0.851 \text{ Pecos W2 B}$$

Predictor	Coef	StDev	T	P
Constant	1.69763	0.00988	171.91	0.000
Pecos W2	0.851357	0.002720	313.00	0.000

$$S = 0.1841 \quad R\text{-Sq} = 96.2\% \quad R\text{-Sq}(\text{adj}) = 96.2\%$$

The regression equation is

$$\text{Pecos W1 A} = 3.25 + 0.458 \text{ Pecos W3 B}$$

3606 cases used 306 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	3.24982	0.01137	285.74	0.000
Pecos W3	0.458078	0.003061	149.64	0.000

$$S = 0.3572 \quad R\text{-Sq} = 86.1\% \quad R\text{-Sq}(\text{adj}) = 86.1\%$$

The regression equation is

$$\text{Pecos W1 A} = 0.563 + 1.04 \text{ Pecos W5 B}$$

Predictor	Coef	StDev	T	P
Constant	0.56327	0.01334	42.22	0.000
Pecos W5	1.03911	0.00331	313.84	0.000

$$S = 0.1836 \quad R\text{-Sq} = 96.2\% \quad R\text{-Sq}(\text{adj}) = 96.2\%$$

The regression equation is

$$\text{Pecos W2 A} = 5.64 - 0.420 \text{ Pecos W5 A}$$

Predictor	Coef	StDev	T	P
Constant	5.6411	0.1270	44.43	0.000
Pecos W5	-0.41975	0.03149	-13.33	0.000

$$S = 0.6625 \quad R\text{-Sq} = 4.3\% \quad R\text{-Sq}(\text{adj}) = 4.3\%$$

The regression equation is

$$\text{Pecos W2 A} = 0.0577 + 0.532 \text{ Pecos River B}$$

Predictor	Coef	StDev	T	P
Constant	0.05767	0.04245	1.36	0.174
Pecos Ri	0.531589	0.005731	92.75	0.000

$$S = 0.3786 \quad R\text{-Sq} = 68.8\% \quad R\text{-Sq}(\text{adj}) = 68.7\%$$

The regression equation is

$$\text{Pecos W2 A} = 1.75 + 0.522 \text{ Pecos W1 B}$$

Predictor	Coef	StDev	T	P
Constant	1.74958	0.01327	131.84	0.000
Pecos W1	0.521774	0.003017	172.96	0.000

$$S = 0.2303 \quad R\text{-Sq} = 88.4\% \quad R\text{-Sq}(\text{adj}) = 88.4\%$$

The regression equation is

$$\text{Pecos W2 A} = 1.86 + 0.605 \text{ Pecos W2 B}$$

Predictor	Coef	StDev	T	P
Constant	1.85831	0.00933	199.18	0.000
Pecos W2	0.604941	0.002570	235.41	0.000

$$S = 0.1739 \quad R\text{-Sq} = 93.4\% \quad R\text{-Sq}(\text{adj}) = 93.4\%$$

The regression equation is

$$\text{Pecos W2 A} = 2.95 + 0.328 \text{ Pecos W3 B}$$

3606 cases used 306 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	2.95467	0.00858	344.33	0.000
Pecos W3	0.327855	0.002310	141.95	0.000

$$S = 0.2695 \quad R\text{-Sq} = 84.8\% \quad R\text{-Sq}(\text{adj}) = 84.8\%$$

The regression equation is

$$\text{Pecos W2 A} = 1.04 + 0.741 \text{ Pecos W5 B}$$

Predictor	Coef	StDev	T	P
Constant	1.04329	0.01205	86.58	0.000
Pecos W5	0.740637	0.002990	247.67	0.000

$$S = 0.1658 \quad R\text{-Sq} = 94.0\% \quad R\text{-Sq}(\text{adj}) = 94.0\%$$

The regression equation is

Pecos W5 A = 4.59 - 0.0774 Pecos River B

Predictor	Coef	StDev	T	P
Constant	4.58523	0.03659	125.33	0.000
Pecos Ri	-0.077443	0.004939	-15.68	0.000

S = 0.3263 R-Sq = 5.9% R-Sq(adj) = 5.9%

The regression equation is

Pecos W5 A = 4.42 - 0.0956 Pecos W1 B

Predictor	Coef	StDev	T	P
Constant	4.42140	0.01818	243.16	0.000
Pecos W1	-0.095569	0.004133	-23.12	0.000

S = 0.3156 R-Sq = 12.0% R-Sq(adj) = 12.0%

The regression equation is

Pecos W5 A = 4.37 - 0.100 Pecos W2 B

Predictor	Coef	StDev	T	P
Constant	4.36542	0.01708	255.55	0.000
Pecos W2	-0.100395	0.004705	-21.34	0.000

S = 0.3184 R-Sq = 10.4% R-Sq(adj) = 10.4%

The regression equation is

Pecos W5 A = 4.12 - 0.0344 Pecos W3 B

3606 cases used 306 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	4.11885	0.01091	377.51	0.000
Pecos W3	-0.034445	0.002937	-11.73	0.000

S = 0.3427 R-Sq = 3.7% R-Sq(adj) = 3.7%

The regression equation is

$$\text{Pecos W5 A} = 4.39 - 0.0938 \text{ Pecos W5 B}$$

Predictor	Coef	StDev	T	P
Constant	4.38636	0.02369	185.15	0.000
Pecos W5	-0.093832	0.005879	-15.96	0.000

$$S = 0.3260 \quad R\text{-Sq} = 6.1\% \quad R\text{-Sq}(\text{adj}) = 6.1\%$$

The regression equation is

$$\text{Pecos River B} = 4.04 + 0.779 \text{ Pecos W1 B}$$

Predictor	Coef	StDev	T	P
Constant	4.03679	0.02645	152.60	0.000
Pecos W1	0.779459	0.006013	129.62	0.000

$$S = 0.4591 \quad R\text{-Sq} = 81.1\% \quad R\text{-Sq}(\text{adj}) = 81.1\%$$

The regression equation is

$$\text{Pecos River B} = 4.34 + 0.862 \text{ Pecos W2 B}$$

Predictor	Coef	StDev	T	P
Constant	4.34406	0.02663	163.15	0.000
Pecos W2	0.861903	0.007334	117.52	0.000

$$S = 0.4963 \quad R\text{-Sq} = 77.9\% \quad R\text{-Sq}(\text{adj}) = 77.9\%$$

The regression equation is

$$\text{Pecos River B} = 5.86 + 0.486 \text{ Pecos W3 B}$$

3606 cases used 306 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	5.86430	0.01511	388.08	0.000
Pecos W3	0.485805	0.004067	119.44	0.000

$$S = 0.4746 \quad R\text{-Sq} = 79.8\% \quad R\text{-Sq}(\text{adj}) = 79.8\%$$

The regression equation is

$$\text{Pecos River B} = 3.06 + 1.09 \text{ Pecos W5 B}$$

Predictor	Coef	StDev	T	P
Constant	3.05967	0.03151	97.11	0.000
Pecos W5	1.08657	0.00782	138.97	0.000

$$S = 0.4335 \quad R\text{-Sq} = 83.2\% \quad R\text{-Sq}(\text{adj}) = 83.2\%$$

The regression equation is

$$\text{Pecos W1 B} = 0.356 + 1.12 \text{ Pecos W2 B}$$

Predictor	Coef	StDev	T	P
Constant	0.356400	0.009310	38.28	0.000
Pecos W2	1.11668	0.00256	435.48	0.000

$$S = 0.1735 \quad R\text{-Sq} = 98.0\% \quad R\text{-Sq}(\text{adj}) = 98.0\%$$

The regression equation is

$$\text{Pecos W1 B} = 2.40 + 0.600 \text{ Pecos W3 B}$$

3606 cases used 306 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	2.39962	0.01368	175.40	0.000
Pecos W3	0.600148	0.003682	162.98	0.000

$$S = 0.4297 \quad R\text{-Sq} = 88.1\% \quad R\text{-Sq}(\text{adj}) = 88.0\%$$

The regression equation is

$$\text{Pecos W1 B} = -1.10 + 1.36 \text{ Pecos W5 B}$$

Predictor	Coef	StDev	T	P
Constant	-1.10378	0.01540	-71.69	0.000
Pecos W5	1.35590	0.00382	354.90	0.000

$$S = 0.2118 \quad R\text{-Sq} = 97.0\% \quad R\text{-Sq}(\text{adj}) = 97.0\%$$

The regression equation is

$$\text{Pecos W2 B} = 1.83 + 0.538 \text{ Pecos W3 B}$$

3606 cases used 306 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	1.82889	0.01106	165.37	0.000
Pecos W3	0.537786	0.002977	180.66	0.000

$$S = 0.3474 \quad R\text{-Sq} = 90.1\% \quad R\text{-Sq}(\text{adj}) = 90.1\%$$

The regression equation is

$$\text{Pecos W2 B} = -1.29 + 1.21 \text{ Pecos W5 B}$$

Predictor	Coef	StDev	T	P
Constant	-1.29283	0.01002	-129.02	0.000
Pecos W5	1.21046	0.00249	486.79	0.000

$$S = 0.1379 \quad R\text{-Sq} = 98.4\% \quad R\text{-Sq}(\text{adj}) = 98.4\%$$

The regression equation is

$$\text{Pecos W3 B} = -5.07 + 2.07 \text{ Pecos W5 B}$$

3606 cases used 306 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	-5.06531	0.04128	-122.72	0.000
Pecos W5	2.06596	0.01010	204.48	0.000

$$S = 0.5475 \quad R\text{-Sq} = 92.1\% \quad R\text{-Sq}(\text{adj}) = 92.1\%$$

Colorado Location

The regression equation is

$$\text{Colorado W1 2000} = 0.533 + 0.753 \text{ Colorado W2 2000}$$

3746 cases used 46 cases contain missing values

Predictor	Coef	StDev	T	P
Constant	0.533154	0.009837	54.20	0.000
Colorado	0.753431	0.002727	276.24	0.000

$$S = 0.03411 \quad R\text{-Sq} = 95.3\% \quad R\text{-Sq}(\text{adj}) = 95.3\%$$

The regression equation is

$$\text{Colorado W1 2001} = -0.0041 + 0.957 \text{ Colorado W2 2001}$$

Predictor	Coef	StDev	T	P
Constant	-0.00406	0.02032	-0.20	0.842
Colorado	0.957177	0.006247	153.23	0.000

$$S = 0.08381 \quad R\text{-Sq} = 83.8\% \quad R\text{-Sq}(\text{adj}) = 83.8\%$$

The regression equation is

$$\text{Colorado W1 2001} = 2.37 + 0.541 \text{ Colorado w3 2001}$$

Predictor	Coef	StDev	T	P
Constant	2.37422	0.00348	681.54	0.000
Colorado	0.541423	0.002496	216.89	0.000

$$S = 0.06177 \quad R\text{-Sq} = 91.2\% \quad R\text{-Sq}(\text{adj}) = 91.2\%$$

The regression equation is

$$\text{Colorado W2 2001} = 2.55 + 0.518 \text{ Colorado w3 2001}$$

Predictor	Coef	StDev	T	P
Constant	2.54846	0.00330	771.30	0.000
Colorado	0.518267	0.002368	218.89	0.000

$$S = 0.05858 \quad R\text{-Sq} = 91.4\% \quad R\text{-Sq}(\text{adj}) = 91.4\%$$

Canadian Location

The regression equation is

$$\text{Canadian River} = 0.670 + 0.385 \text{ Canadian W2}$$

Predictor	Coef	StDev	T	P
Constant	0.67009	0.02916	22.98	0.000
Canadian	0.384578	0.009789	39.29	0.000

$$S = 0.3271 \quad R\text{-Sq} = 28.3\% \quad R\text{-Sq}(\text{adj}) = 28.3\%$$

The regression equation is

$$\text{Canadian River} = 0.269 + 0.405 \text{ Canadian W3}$$

Predictor	Coef	StDev	T	P
Constant	0.26865	0.03899	6.89	0.000
Canadian	0.40451	0.01023	39.55	0.000

S = 0.3265 R-Sq = 28.6% R-Sq(adj) = 28.6%

The regression equation is

Canadian River = 0.590 + 0.422 Canadian W4

Predictor	Coef	StDev	T	P
Constant	0.59037	0.02848	20.73	0.000
Canadian	0.421773	0.009797	43.05	0.000

S = 0.3182 R-Sq = 32.2% R-Sq(adj) = 32.1%

The regression equation is

Canadian W2 = - 1.01 + 1.04 Canadian W3

Predictor	Coef	StDev	T	P
Constant	-1.00629	0.00614	-163.95	0.000
Canadian	1.04190	0.00161	647.19	0.000

S = 0.05139 R-Sq = 99.1% R-Sq(adj) = 99.1%

The regression equation is

Canadian W2 = 0.00886 + 1.02 Canadian W4

Predictor	Coef	StDev	T	P
Constant	0.008865	0.005837	1.52	0.129
Canadian	1.02116	0.00201	508.64	0.000

S = 0.06520 R-Sq = 98.5% R-Sq(adj) = 98.5%

The regression equation is

Canadian W3 = 0.979 + 0.978 Canadian W4

Predictor	Coef	StDev	T	P
Constant	0.979141	0.004360	224.56	0.000
Canadian	0.978409	0.001500	652.41	0.000

S = 0.04871 R-Sq = 99.1% R-Sq(adj) = 99.1%