

Ecosphere

Assessing Precipitation, Evapotranspiration, and NDVI as Controls of U.S. Great Plains Plant Production

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Appendix S2. Average 2004-2014 NRCS ANPP for the U.S. GP counties.

Table S1. Average 2004-2014 NRCS ANPP for the U.S. GP counties.

unfips	County and State	Latitude (°)	Longitude (°)	avg_ANPP (g biomass / m ²)
08001	adams, CO	39.87	-104.36	171.8576
08005	arapahoe, CO	39.65	-104.34	166.2536
08009	Baca, CO	37.32	-102.56	163.3181
08011	bent, CO	37.95	-103.07	130.1741
08017	cheyenne, CO	38.83	-102.6	166.1041
08025	crowley, CO	38.33	-103.78	125.7798
08039	elbert, CO	39.29	-104.14	154.0431
08041	elpaso, CO	38.83	-104.53	153.223
08055	huerfano, CO	37.68	-104.96	112.8594
08061	kiowa, CO	38.43	-102.74	122.7797
08063	kitcarson, CO	39.31	-102.6	173.7301
08071	lasanimas, CO	37.32	-104.04	105.5854
08073	lincoln, CO	38.99	-103.51	137.0134
08075	logan, CO	40.72	-103.11	198.4877
08087	morgan, CO	40.26	-103.81	205.5178
08089	otero, CO	37.9	-103.72	114.6675
08095	phillips, CO	40.59	-102.36	235.3702
08099	prowers, CO	37.95	-102.39	160.3159
08101	pueblo, CO	38.17	-104.51	100.2081
08115	sedgwick, CO	40.88	-102.35	200.5661
08121	washington, CO	39.97	-103.2	165.104
08123	weld, CO	40.55	-104.39	176.4109
08125	yuma, CO	40	-102.42	212.1757
20007	barber, KS	37.23	-98.68	292.0624
20009	barton, KS	38.48	-98.76	560.4052
20023	cheyenne, KS	39.79	-101.73	189.0094
20025	clark, KS	37.24	-99.82	198.3212
20033	comanche, KS	37.19	-99.27	266.3199
20039	decat, KS	39.78	-100.46	199.5155

20047	edwards, KS	37.89	-99.31	314.9477
20051	ellis, KS	38.91	-99.32	267.7492
20053	ellsworth, KS	38.7	-98.2	391.7233
20055	finney, KS	38.04	-100.74	110.213
20057	ford, KS	37.69	-99.89	233.9762
20063	gove, KS	38.92	-100.48	223.7138
20065	graham, KS	39.35	-99.88	320.354
20067	grant, KS	37.56	-101.31	138.9805
20069	gray, KS	37.74	-100.44	179.3297
20071	greeley, KS	38.48	-101.81	67.24863
20075	hamilton, KS	38	-101.79	100.8729
20077	harper, KS	37.19	-98.08	391.1068
20083	hodgeman, KS	38.09	-99.9	330.6391
20089	jewell, KS	39.78	-98.22	381.0756
20093	kearny, KS	38	-101.32	128.5983
20095	kingman, KS	37.56	-98.14	353.5036
20097	kiowa, KS	37.56	-99.29	318.7049
20101	lane, KS	38.48	-100.47	250.0121
20105	lincoln, KS	39.05	-98.21	309.9674
20109	logan, KS	38.92	-101.15	220.5959
20119	meade, KS	37.24	-100.37	194.2738
20123	mittchell, KS	39.39	-98.21	353.1113
20129	morton, KS	37.19	-101.8	172.6048
20135	ness, KS	38.48	-99.92	274.5986
20137	norton, KS	39.78	-99.9	310.6061
20141	osborne, KS	39.35	-98.77	331.8189
20145	pawnee, KS	38.18	-99.24	300.7508
20147	phillips, KS	39.78	-99.35	320.9877
20151	pratt, KS	37.65	-98.74	342.968
20153	rawlins, KS	39.79	-101.08	204.4145
20155	reno, KS	37.95	-98.09	311.185
20159	rice, KS	38.35	-98.2	483.5497
20163	rooks, KS	39.35	-99.33	299.1702
20165	rush, KS	38.52	-99.31	504.3647
20167	russell, KS	38.91	-98.76	323.167
20171	scott, KS	38.48	-100.91	207.3499
20175	seward, KS	37.19	-100.85	155.7927
20179	sheridan, KS	39.35	-100.44	229.1435
20181	sherman, KS	39.35	-101.72	208.1505
20183	smith, KS	39.79	-98.79	346.5172
20185	stafford, KS	38.03	-98.72	370.652
20187	stanton, KS	37.56	-101.78	149.4414
20189	stevens, KS	37.19	-101.31	148.5074

20193	thomas, KS	39.35	-101.06	162.5175
20195	trego, KS	38.91	-99.87	268.294
20199	wallace, KS	38.92	-101.76	225.5631
20203	wichita, KS	38.48	-101.35	181.1977
30003	bighorn, MT	45.42	-107.49	169.3805
30005	blaine, MT	48.43	-108.96	174.1179
30009	carbon, MT	45.23	-109.03	141.1521
30011	carter, MT	45.52	-104.54	155.6059
30015	chouteau, MT	47.88	-110.44	171.6878
30017	custler, MT	46.25	-105.57	149.2977
30019	daniels, MT	48.78	-105.55	157.5361
30021	dawson, MT	47.27	-104.9	186.0114
30025	fallon, MT	46.33	-104.42	171.1391
30027	fergus, MT	47.26	-109.22	186.9855
30033	garfield, MT	47.28	-106.99	149.3246
30037	goldenvally, MT	46.38	-109.18	135.3594
30041	hill, MT	48.63	-110.11	163.2905
30051	liberty, MT	48.56	-111.02	159.8874
30055	mccone, MT	47.64	-105.8	170.55
30065	musselshell, MT	46.5	-108.4	135.0723
30069	petroleum, MT	47.12	-108.25	143.5058
30071	phillips, MT	48.26	-107.92	150.6981
30075	powderriver, MT	45.39	-105.63	148.2327
30079	prairie, MT	46.86	-105.38	153.8001
30083	richland, MT	47.79	-104.56	185.8677
30085	roosevelt, MT	48.3	-105.02	173.2945
30087	rosebud, MT	46.23	-106.73	146.8858
30091	sheridan, MT	48.72	-104.5	155.0454
30095	stillwater, MT	45.67	-109.4	156.8304
30097	sweetgrass, MT	45.81	-109.94	142.8865
30101	toole, MT	48.65	-111.7	183.0704
30103	treasure, MT	46.21	-107.27	140.6108
30105	valley, MT	48.36	-106.67	173.7972
30107	wheatland, MT	46.47	-109.84	160.4219
30109	wibaux, MT	46.96	-104.25	156.1493
30111	yellowstone, MT	45.94	-108.28	145.9779
31003	antelope, NE	42.18	-98.07	339.8457
31005	arthur, NE	41.57	-101.7	226.14
31007	banner, NE	41.55	-103.71	127.7257
31009	blaine, NE	41.91	-99.98	279.1519
31011	boone, NE	41.71	-98.07	354.9233
31013	boxbutte, NE	42.22	-103.09	201.3456
31015	boyd, NE	42.9	-98.77	259.105

31017	brown, NE	42.43	-99.93	281.1092
31019	buffalo, NE	40.86	-99.07	372.5047
31027	cedar, NE	42.6	-97.25	280.2026
31029	chase, NE	40.52	-101.7	188.6698
31031	cherry, NE	42.54	-101.12	240.6331
31033	cheyenne, NE	41.22	-102.99	178.3957
31041	custler, NE	41.39	-99.73	341.4469
31045	dawes, NE	42.72	-103.14	190.8111
31047	dawson, NE	40.87	-99.82	372.903
31049	deuel, NE	41.11	-102.33	213.6545
31057	dundy, NE	40.18	-101.69	157.0886
31061	franklin, NE	40.18	-98.95	273.5796
31063	frontier, NE	40.53	-100.39	209.7917
31065	furnas, NE	40.18	-99.91	241.4053
31069	garden, NE	41.62	-102.34	215.921
31071	garfield, NE	41.91	-98.99	302.9138
31073	gospier, NE	40.51	-99.83	405.3598
31075	grant, NE	41.91	-101.74	260.146
31077	greeley, NE	41.57	-98.52	319.6857
31079	hall, NE	40.87	-98.5	489.2338
31083	harlan, NE	40.18	-99.4	359.9172
31085	hayes, NE	40.52	-101.06	196.1418
31087	hitchcock, NE	40.18	-101.04	144.6379
31089	holt, NE	42.46	-98.78	274.2076
31091	hooker, NE	41.92	-101.14	243.0758
31093	howard, NE	41.22	-98.52	384.8116
31101	keith, NE	41.2	-101.66	196.906
31103	keyapaha, NE	42.88	-99.71	244.1549
31105	kimball, NE	41.2	-103.71	126.4274
31107	knox, NE	42.64	-97.89	325.035
31111	lincoln, NE	41.05	-100.75	241.713
31113	logan, NE	41.57	-100.48	260.5884
31115	loup, NE	41.91	-99.45	309.4237
31117	mcperson, NE	41.57	-101.06	252.6918
31121	merrick, NE	41.17	-98.04	442.4088
31123	morrill, NE	41.72	-103.01	180.3874
31125	nance, NE	41.4	-97.99	321.9217
31129	nuckolls, NE	40.18	-98.05	367.7659
31135	perkins, NE	40.85	-101.65	246.5783
31137	phelps, NE	40.51	-99.41	349.3193
31139	pierce, NE	42.26	-97.6	257.7864
31145	redwillow, NE	40.18	-100.48	292.2113
31149	rock, NE	42.42	-99.45	304.0198

31157	scottsbluff, NE	41.85	-103.71	131.2528
31161	sheridan, NE	42.5	-102.41	234.1693
31163	sherman, NE	41.22	-98.98	364.9306
31165	sioux, NE	42.49	-103.76	162.393
31171	thomas, NE	41.91	-100.56	249.1648
31175	valley, NE	41.57	-98.98	326.4454
31181	webster, NE	40.18	-98.5	341.9873
31183	wheeler, NE	41.91	-98.53	310.3244
35005	chaves, NM	33.36	-104.47	106.7512
35007	colfax, NM	36.61	-104.65	108.345
35009	curry, NM	34.57	-103.35	166.1123
35011	debaca, NM	34.34	-104.41	167.0876
35015	eddy, NM	32.47	-104.3	101.0216
35019	guadalupe, NM	34.86	-104.79	118.6023
35021	harding, NM	35.86	-103.82	137.551
35025	lea, NM	32.79	-103.41	132.5206
35033	mora, NM	36.01	-104.94	109.0376
35037	quay, NM	35.1	-103.55	162.1991
35041	roosevelt, NM	34.02	-103.48	190.8535
35047	sanmiguel, NM	35.48	-104.82	105.0712
35059	union, NM	36.48	-103.47	136.3714
38001	adams, ND	46.1	-102.53	244.0474
38005	benson, ND	48.07	-99.37	452.8074
38007	billings, ND	47.02	-103.38	220.0864
38009	bottineau, ND	48.79	-100.83	363.0181
38011	bowman, ND	46.11	-103.52	195.7916
38013	burke, ND	48.79	-102.52	234.2164
38015	burleigh, ND	46.98	-100.47	282.053
38021	dickey, ND	46.11	-98.5	357.4585
38023	divide, ND	48.82	-103.49	255.3346
38025	dunn, ND	47.36	-102.62	225.1854
38027	eddy, ND	47.72	-98.9	296.0808
38029	emmons, ND	46.28	-100.24	284.7559
38031	foster, ND	47.46	-98.88	252.1824
38033	goldenvalley, ND	46.94	-103.85	189.3119
38035	grandforks, ND	47.92	-97.46	300.7508
38037	grant, ND	46.36	-101.64	235.3702
38039	griggs, ND	47.46	-98.24	347.9607
38041	hettinger, ND	46.43	-102.46	320.365
38043	kidder, ND	46.98	-99.78	317.096
38045	lamoure, ND	46.46	-98.54	184.9337
38047	logan, ND	46.46	-99.48	290.2309
38049	mchenry, ND	48.23	-100.64	362.342

38051	mcintosh, ND	46.11	-99.44	234.1249
38053	mckenzie, ND	47.74	-103.4	212.7464
38055	mclean, ND	47.61	-101.32	255.8085
38057	mercere, ND	47.31	-101.83	244.409
38059	morton, ND	46.72	-101.28	235.7778
38061	mountrail, ND	48.2	-102.36	236.954
38063	nelson, ND	47.92	-98.19	348.2518
38065	oliver, ND	47.12	-101.34	258.3201
38069	pierce, ND	48.25	-99.97	325.2685
38071	ramsey, ND	48.27	-98.72	459.5323
38073	ransom, ND	46.46	-97.66	305.4209
38075	renville, ND	48.72	-101.66	459.5323
38079	rolette, ND	48.77	-99.84	351.1873
38081	sargent, ND	46.11	-97.63	427.0288
38083	sheridan, ND	47.58	-100.35	252.8495
38085	sioux, ND	46.11	-101.04	249.1135
38087	slope, ND	46.45	-103.46	164.2418
38089	stark, ND	46.81	-102.66	239.326
38091	steele, ND	47.46	-97.72	425.908
38093	stutsman, ND	46.98	-98.96	300.3772
38095	towne, ND	48.68	-99.25	396.4867
38099	walsh, ND	48.37	-97.72	322.233
38101	ward, ND	48.22	-101.54	253.4277
38103	wells, ND	47.59	-99.66	321.0321
38105	williams, ND	48.34	-103.48	244.8727
40003	alfalfa, OK	36.73	-98.32	422.1719
40007	beaver, OK	36.75	-100.48	189.1246
40009	beckham, OK	35.27	-99.68	188.9686
40011	blaine, OK	35.87	-98.43	285.6233
40015	caddo, OK	35.17	-98.37	279.6422
40017	canadian, OK	35.54	-97.98	521.1096
40025	cimarron, OK	36.75	-102.52	167.1051
40031	comanche, OK	34.66	-98.47	243.2159
40033	cotton, OK	34.29	-98.37	315.0085
40039	custe, OK	35.64	-99	271.096
40043	dewey, OK	35.99	-99.01	280.7739
40045	ellis, OK	36.22	-99.75	291.3547
40047	garfield, OK	36.38	-97.78	252.1824
40051	grady, OK	35.02	-97.88	451.8332
40053	grant, OK	36.8	-97.79	367.9994
40055	greer, OK	34.94	-99.56	250.4339
40057	harmon, OK	34.74	-99.85	302.4252
40059	harpe, OK	36.79	-99.67	238.6144

40065	jackson, OK	34.59	-99.41	292.1704
40067	jefferson, OK	34.11	-97.84	413.3011
40073	kingfisher, OK	35.95	-97.94	319.431
40075	kiowa, OK	34.92	-98.98	282.4442
40093	major, OK	36.31	-98.54	242.9504
40129	rogermills, OK	35.69	-99.7	285.8562
40137	stephens, OK	34.49	-97.85	450.0961
40139	texas, OK	36.75	-101.49	183.3005
40141	tillman, OK	34.37	-98.92	336.4673
40149	washita, OK	35.29	-98.99	271.4155
40151	woods, OK	36.77	-98.86	248.2025
40153	woodward, OK	36.42	-99.27	279.6471
46003	aurora, SD	43.72	-98.56	338.7338
46005	beadle, SD	44.41	-98.28	406.9404
46007	bennett, SD	43.19	-101.66	270.655
46009	bonhomme, SD	42.99	-97.88	313.8269
46013	brown, SD	45.59	-98.35	236.902
46015	brule, SD	43.72	-99.08	331.5731
46017	buffalo, SD	44.08	-99.2	293.4863
46019	butte, SD	44.91	-103.51	166.9621
46021	campbell, SD	45.77	-100.05	269.0407
46023	charlesmix, SD	43.21	-98.59	383.3172
46025	clark, SD	44.86	-97.73	371.1128
46031	corson, SD	45.71	-101.2	214.0564
46035	davison, SD	43.67	-98.15	358.6594
46037	day, SD	45.37	-97.61	417.5019
46041	dewey, SD	45.16	-100.87	215.6439
46043	douglas, SD	43.39	-98.37	355.8573
46045	edmunds, SD	45.42	-99.22	330.3028
46047	fallriver, SD	43.24	-103.53	186.8017
46049	faulk, SD	45.07	-99.15	305.4927
46053	gregory, SD	43.19	-99.19	307.9057
46055	haakon, SD	44.29	-101.54	241.4053
46059	hand, SD	44.55	-99	314.4496
46061	hanson, SD	43.67	-97.79	339.0452
46063	harding, SD	45.58	-103.5	194.7611
46065	hughes, SD	44.39	-100	293.0712
46067	hutchinson, SD	43.33	-97.75	465.1363
46069	hyde, SD	44.55	-99.49	304.3
46071	jackson, SD	43.87	-101.59	240.2971
46073	jerauld, SD	44.07	-98.63	364.8861
46075	jones, SD	43.96	-100.69	262.0562
46077	kingsbury, SD	44.37	-97.49	417.5019

46085	lyman, SD	43.9	-99.85	267.7492
46087	mccook, SD	43.67	-97.37	302.6188
46089	mcperson, SD	45.77	-99.22	267.4254
46091	marshall, SD	45.76	-97.6	399.0085
46093	meade, SD	44.57	-102.72	213.4877
46097	miner, SD	44.02	-97.61	404.7371
46103	pennington, SD	44	-102.82	211.6731
46105	perkins, SD	45.49	-102.48	204.0534
46107	potter, SD	45.06	-99.96	290.6798
46111	sanborn, SD	44.02	-98.09	382.57
46113	shannon, SD	43.34	-102.55	223.6198
46115	spink, SD	44.94	-98.35	314.2659
46117	stanley, SD	44.41	-100.74	251.5597
46119	sully, SD	44.72	-100.13	310.4645
46121	todd, SD	43.19	-100.72	254.5841
46123	tripp, SD	43.35	-99.88	301.3277
46129	walworth, SD	45.43	-100.03	278.884
46135	yankton, SD	43.01	-97.39	396.4867
46137	ziebach, SD	44.98	-101.67	199.276
48003	andrews, TX	32.31	-102.64	175.0757
48009	archer, TX	33.62	-98.69	311.5853
48011	armstrong, TX	34.96	-101.36	174.0843
48017	bailey, TX	34.07	-102.83	164.9193
48023	baylor, TX	33.62	-99.21	223.4724
48033	borden, TX	32.74	-101.43	175.3295
48045	briscoe, TX	34.53	-101.21	206.5917
48059	callahan, TX	32.3	-99.37	299.7794
48065	carson, TX	35.4	-101.35	205.6687
48069	castro, TX	34.53	-102.26	184.9337
48075	childress, TX	34.53	-100.21	198.842
48077	clay, TX	33.79	-98.21	362.3275
48079	cochran, TX	33.6	-102.83	177.6485
48087	collingsworth, TX	34.96	-100.27	246.0179
48101	cottle, TX	34.08	-100.28	262.718
48107	crosby, TX	33.61	-101.3	182.8959
48111	dallam, TX	36.28	-102.6	160.2759
48117	deafsmith, TX	34.97	-102.6	184.9337
48125	dickens, TX	33.62	-100.78	196.1418
48129	donley, TX	34.97	-100.81	235.557
48133	eastland, TX	32.33	-98.83	348.3853
48143	erath, TX	32.24	-98.22	269.8794
48151	fisher, TX	32.74	-100.4	211.4329
48153	floyd, TX	34.07	-101.3	156.9135

48155	foard, TX	33.97	-99.78	221.3601
48165	gaines, TX	32.74	-102.64	191.6586
48169	garza, TX	33.18	-101.3	225.3429
48179	gray, TX	35.4	-100.81	207.0137
48191	hall, TX	34.53	-100.68	236.491
48195	hansford, TX	36.28	-101.35	188.6698
48197	hardeman, TX	34.29	-99.75	186.8017
48205	hartley, TX	35.84	-102.6	191.9388
48207	haskell, TX	33.18	-99.73	273.0294
48211	hemphill, TX	35.84	-100.27	263.1749
48221	hood, TX	32.43	-97.83	362.2459
48227	howard, TX	32.31	-101.44	119.2729
48233	hutchinson, TX	35.84	-101.35	229.2567
48237	jack, TX	33.23	-98.17	282.4442
48253	jones, TX	32.74	-99.88	250.3143
48263	kent, TX	33.18	-100.78	242.3753
48275	knox, TX	33.61	-99.74	175.1266
48279	lamb, TX	34.07	-102.35	176.976
48295	lipscomb, TX	36.28	-100.27	206.7295
48317	martin, TX	32.31	-101.95	169.8537
48335	mittchell, TX	32.31	-100.92	196.0895
48337	montague, TX	33.68	-97.72	321.8594
48341	moore, TX	35.84	-101.89	182.532
48345	motley, TX	34.07	-100.78	293.6523
48353	nolan, TX	32.3	-100.41	262.0393
48357	ochiltee, TX	36.28	-100.82	142.2807
48359	oldham, TX	35.41	-102.6	182.1826
48363	palopinto, TX	32.75	-98.31	360.5953
48367	parker, TX	32.78	-97.81	317.7124
48369	parmer, TX	34.53	-102.78	179.3297
48375	potter, TX	35.4	-101.89	184.3733
48381	randall, TX	34.97	-101.9	180.1703
48393	roberts, TX	35.84	-100.81	239.8885
48415	scurry, TX	32.75	-100.92	237.5528
48417	shackelford, TX	32.74	-99.35	292.6643
48421	sherman, TX	36.28	-101.89	175.5936
48429	stephens, TX	32.74	-98.84	374.261
48433	stonewall, TX	33.18	-100.25	204.1743
48437	swisher, TX	34.53	-101.74	184.9337
48441	taylor, TX	32.3	-99.89	321.6602
48445	terry, TX	33.17	-102.34	286.4231
48447	throckmorton, TX	33.18	-99.21	320.7653
48483	wheeler, TX	35.4	-100.27	216.7167

48485	wichita, TX	33.99	-98.7	330.0787
48487	wilbarger, TX	34.08	-99.24	252.6627
48497	wise, TX	33.22	-97.65	386.3347
48501	yoakum, TX	33.17	-102.83	199.1594
48503	young, TX	33.18	-98.69	403.772
56003	bighorn, WY	44.53	-107.99	78.45673
56009	converse, WY	42.97	-105.51	135.2331
56017	hotsprings, WY	43.72	-108.44	77.40597
56019	johnson, WY	44.04	-106.58	149.9693
56021	laramie, WY	41.31	-104.69	158.548
56027	niobrara, WY	43.06	-104.48	161.2041
56031	platte, WY	42.13	-104.97	140.1013