



TIMBER VOLUME IN NEBRASKA, 1983

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ABSTRACT.--Presents statistics on Nebraska's growing-stock and sawtimber volumes by county for 1983. Includes map showing growing-stock volume distribution by county.

KEY WORDS: Growing stock, sawtimber, species, counties.

Nebraska's 537,800 acres of commercial forest land--land suitable for producing industrial timber--supported 456 million cubic feet of growing-stock¹ volume in 1983. This is an increase of 23 percent since the last inventory conducted by the USDA Forest Service in 1955, despite a decrease in the commercial forest land base of 24 percent. The increase is predominantly in softwood volume, which has more than doubled in the 28 years between surveys. The average growing-stock volume per acre increased from 353 cubic feet (2.8 cords per acre) in 1955 to 848 cubic feet (6.6 cords per acre) in 1983. This is due to the larger average tree size in 1983.

Ponderosa pine is the most abundant species in Nebraska, accounting for 35 percent of the growing-stock volume (table 1). Cottonwood, the second most plentiful species group in the State, showed an increase of 2.1 million cubic feet from 1955 to 1983. Oak ranked third with 44.5 million cubic feet.

These three species groups make up about three-fourths of the growing stock volume in Nebraska. The following tabulation compares growing-stock volumes by species group for both surveys:

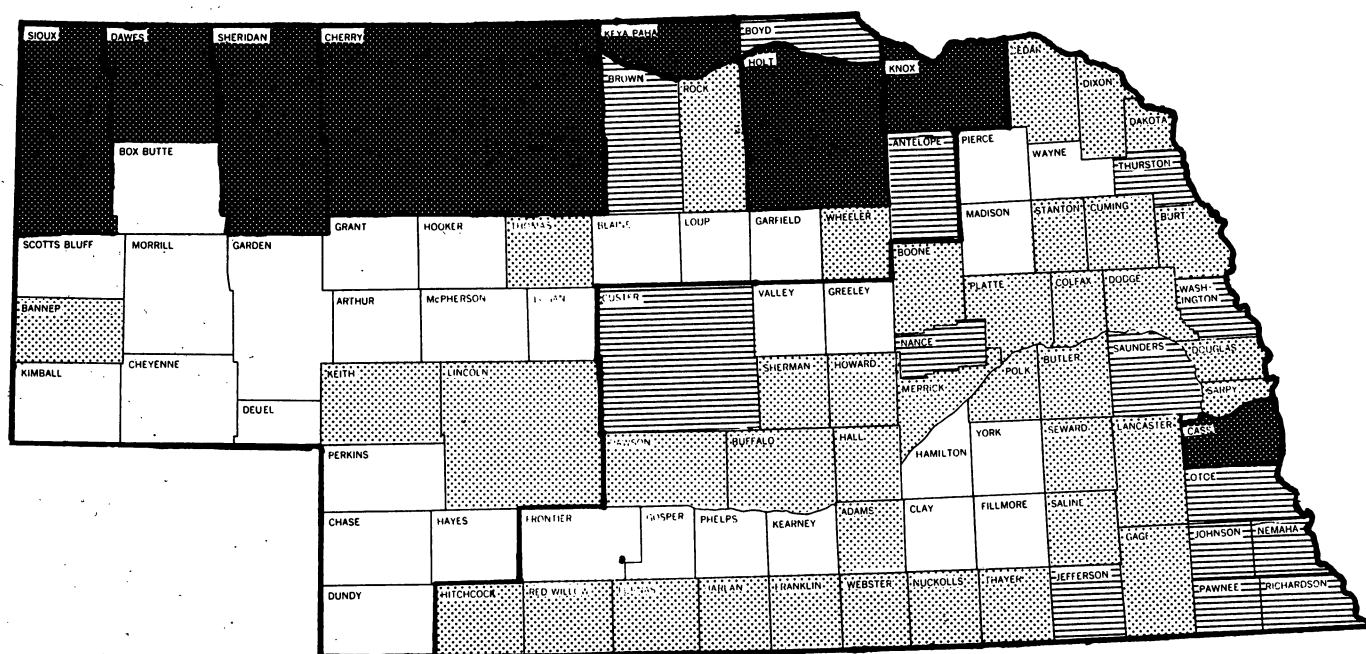
¹Net volume of all live merchantable trees 5 inches d.b.h. and larger from the stump to a variable 4-inch top diameter outside bark of the central stem. Does not include limbs or cull tree volume.

	1955 ² (Million cubic feet)	1983
Softwoods		
Ponderosa pine	79.8	160.3
Eastern redcedar	3.8	9.9
Jack pine	1.0	-
Total	84.6	170.2
Hardwoods		
Oak	35.3	44.6
Hickory	1.4	4.2
Basswood	5.8	6.0
Soft maple	1.7	5.4
Boxelder	1.6	5.3
Elm	51.3	12.4
Ash	27.8	25.9
Cottonwood	140.1	142.2
Willow	6.4	11.1
Hackberry	6.5	16.5
Black walnut	3.4	5.1
Other hardwoods ³	4.3	7.1
Total	285.6	285.8
All species	370.2	456.0

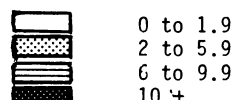
²Figures from the 1955 survey have been adjusted because of changes in survey procedures and definitions.

³Other hardwoods are Texas buckeye, paper birch, honeylocust, Kentucky coffee tree, and mulberry, osage orange, catalpa, black locust.

WESTERN UNIT



GROWING-STOCK VOLUME CLASSES
(MILLION CUBIC FEET)



EASTERN UNIT

Figure 1.--Growing stock volume in Nebraska counties, 1983.

Included in the growing-stock volume are 1.7 billion board feet of sawtimber trees.⁴ The average sawtimber volume per acre is 3,423.6 board feet. As with growing-stock, ponderosa pine is by far the leading sawtimber species in Nebraska and comprises 46 percent of the volume (table 2). The cottonwood species group is ranked second and accounts for 30 percent of the total sawtimber volume. Oak, ash, and hackberry account for most of the remaining sawtimber volume, as shown in the following tabulation:

	(Thousand board feet) ⁵
Ponderosa pine	781,654
Cottonwood	510,947
Oak	138,956
Ash	89,308
Hackberry	44,308
Other species groups	146,333
Total	1,711,873

The major concentrations of timber are found along the northern border area and in the major river basins (fig. 1). Dawes County in the northwestern part of the State contains the largest volume of timber (12 percent

of the total), with 52.2 million cubic feet of growing-stock and 248.6 million board feet of sawtimber. Thirty-one percent of the total ponderosa pine growing-stock volume is found in Dawes County.

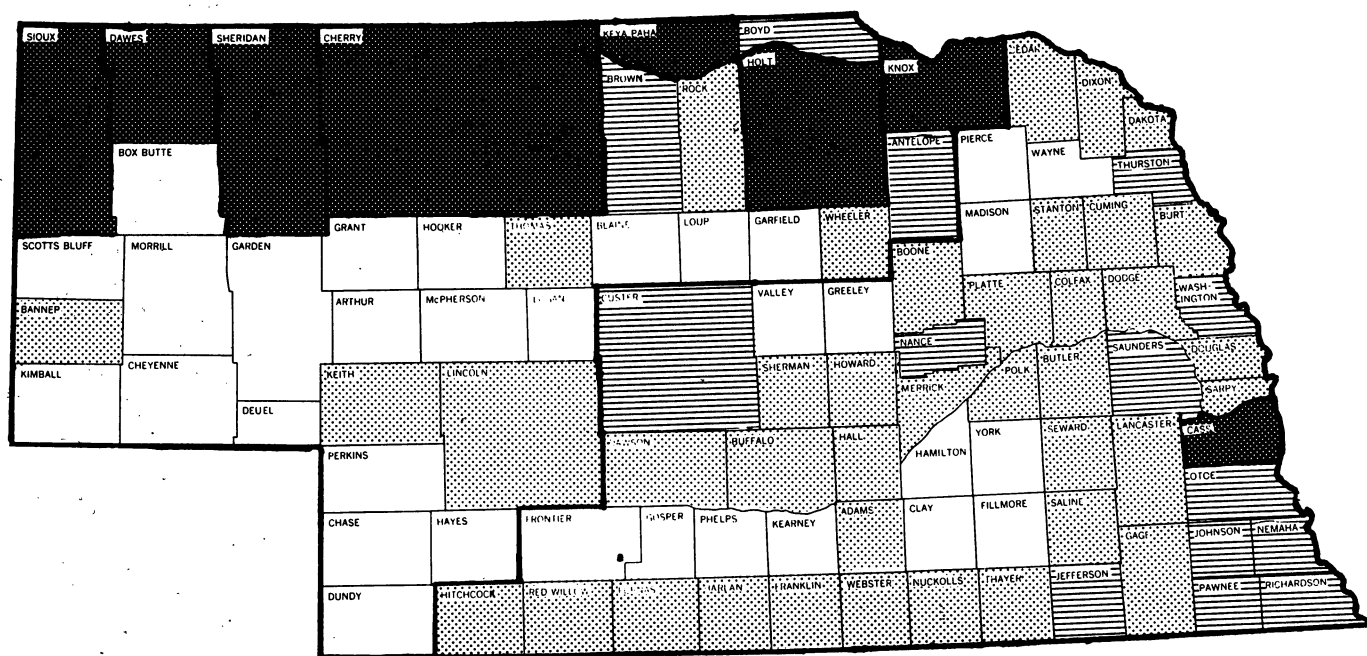
These statistics are based on results from the forest inventory conducted by the North Central Forest Experiment Station. Fieldwork for the inventory was completed in May 1983. This is one of several papers that will present resource statistics for Nebraska.

Sampling error for Nebraska's total growing-stock volume of 456,011 thousand cubic feet is estimated to be ± 9 percent. Sawtimber sampling error is estimated to be ± 9 percent for the total of 1.7 billion board feet.

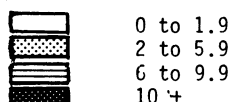
⁴Net volume of live merchantable sawtimber trees (softwoods 9 inches d.b.h. or larger and hardwood 11 inches d.b.h. or larger) from the stump to a point in the central stem at which utilization for sawn products is limited by large branches, forks, or other defects, or by a top diameter outside bark of 7 inches for softwoods and 9 inches for hardwoods.

⁵International 1/4-inch rule.

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(Table 1 continued)

County	All species	Species group																Black walnut	Blackberry	Boxelder	Willow	Cotton-wood	Soft maple	Basswood	Hickory	Oak	Eastern redcedar	Ponderosa pine	Eastern	Other hardwoods-1/
		species	pine	redcedar	Oak	Hickory	Basswood	maple	Elm	Ash	wood	Boxelder	Hackberry	Boxelder	Willow	Cotton-wood	Soft maple													
Sherman	1,673	--	--	72	153	24	21	29	49	126	929	63	98	28	63	929	49	126	29	21	24	153	72	--	--	47				
Stanton	2,656	--	--	93	149	13	52	44	132	394	1,214	93	264	59	93	1,214	132	394	52	11	13	149	93	--	--	57				
Thayer	2,452	--	--	46	190	45	11	51	72	231	1,242	135	189	67	135	1,242	72	231	11	11	45	190	46	--	--	83				
Thurston	8,887	--	--	218	1,840	125	1,387	112	410	509	3,106	209	525	121	209	3,106	410	509	1,387	1,387	125	1,840	218	--	--	164				
Valley	670	--	--	14	51	11	14	13	20	61	327	37	54	23	37	327	20	61	14	14	11	51	14	--	--	22				
Washington	8,247	--	--	116	2,921	258	106	171	514	582	2,134	156	672	154	156	2,134	514	582	106	106	258	2,921	116	--	--	292				
Wayne	1,149	--	--	10	372	43	14	19	53	91	359	22	77	16	22	359	53	91	14	14	43	372	10	--	--	41				
Webster	5,699	--	--	128	604	85	96	186	343	612	2,641	232	409	125	232	2,641	343	612	96	96	85	604	128	--	--	140				
York	803	--	--	23	47	8	11	24	43	62	426	41	58	19	41	426	43	62	11	11	8	47	23	--	--	24				
Total	225,748	--	--	6,172	33,858	4,135	5,159	5,381	11,317	19,768	100,334	7,846	15,617	4,872	7,846	100,334	11,317	19,768	5,159	5,381	4,135	33,858	6,172	--	--	6,372				
WESTERN UNIT																														
Antelope	7,718	1,206	--	257	1,178	--	35	--	85	630	3,930	241	67	21	241	3,930	85	630	--	--	--	1,178	257	--	--	57				
Arthur	352	--	--	3	8	--	--	--	--	12	282	42	5	--	--	282	--	12	--	--	--	8	3	--	--	--				
Banner	3,050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Blaine	994	74	--	26	211	--	8	--	5	104	530	15	9	3	15	530	5	104	--	--	--	211	26	--	--	8				
Box Butte	54	--	--	--	--	--	--	--	2	10	35	7	--	--	7	35	2	10	--	--	--	--	--	--	--	--				
Boyd	6,268	2,143	--	216	522	--	10	--	102	425	2,477	270	40	27	270	2,477	102	425	--	--	--	522	216	--	--	--				
Brown	7,273	3,367	--	284	881	--	210	--	25	355	1,746	87	91	59	87	1,746	25	355	--	--	--	881	284	--	--	126				
Chase	206	--	--	5	4	--	--	--	--	6	166	22	3	--	22	166	--	6	--	--	--	4	5	--	--	--				
Cherry	9,903	5,483	--	265	808	--	16	--	55	356	2,564	207	46	41	207	2,564	55	356	--	--	--	808	265	--	--	49				
Cheyenne	189	--	--	--	--	--	--	--	--	42	147	--	--	--	--	147	--	42	--	--	--	--	--	--	--	--				
Daves	52,487	49,846	--	29	101	--	4	--	52	149	2,009	260	34	--	260	2,009	52	149	--	--	--	101	29	--	--	3				
Deuel	159	--	--	7	--	--	--	--	4	19	116	13	--	6	13	116	4	19	--	--	--	--	7	--	--	--				
Dundy	1,254	64	--	25	105	--	3	--	19	87	851	81	11	--	81	851	19	87	--	--	--	105	25	--	--	2				
Garden	529	215	--	19	4	--	--	--	--	5	263	21	--	--	21	263	--	5	--	--	--	4	19	--	--	--				
Garfield	1,316	407	--	31	145	--	4	--	1	64	600	43	11	3	43	600	1	64	--	--	--	145	31	--	--	6				
Grant	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Hayes	587	275	--	13	14	--	--	--	14	39	206	22	--	--	22	206	14	39	--	--	--	14	13	--	--	1				
Holt	14,248	4,324	--	596	1,632	--	32	--	130	883	5,856	494	120	69	494	5,856	130	883	--	--	--	1,632	596	--	--	89				
Hooker	569	106	--	16	115	--	3	--	--	49	252	7	4	13	7	252	--	49	--	--	--	115	16	--	--	4				
Keith	2,571	--	--	70	52	--	1	--	104	174	1,956	194	19	48	194	1,956	104	174	--	--	--	52	70	--	--	1				
Keya Paha	10,957	6,025	--	430	1,121	--	17	--	64	439	2,465	194	51	24	194	2,465	64	439	--	--	--	1,121	430	--	--	79				
Kimball	397	397	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Knox	15,989	3,957	--	681	2,178	--	446	--	106	1,059	6,474	435	--	55	435	6,474	106	1,059	--	--	--	2,178	681	--	--	262				
Lincoln	3,915	415	--	322	126	--	--	--	127	284	2,428	166	41	6	166	2,428	127	284	--	--	--	126	322	--	--	--				
Logan	515	231	--	48	85	--	1	--	10	26	90	4	9	4	4	90	10	26	--	--	--	85	48	--	--	4				
Loup	502	37	--	12	94	--	3	--	5	58	267	16	3	3	16	267	5	58	--	--	--	94	12	--	--	3				
McPherson	200	63	--	3	33	--	1	--	--	14	79	2	1	3	2	79	--	14	--	--	--	33	3	--	--	1				
Morrill	1,125	109	--	58	--	--	--	--	45	95	764	54	--	--	54	764	45	95	--	--	--	--	58	--	--	--				
Perkins	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Rock	3,216	1,063	--	140	454	--	11	--	34	195	1,179	67	28	18	67	1,179	34	195	--	--	--	454	140	--	--	22				
Scotts Bluff	1,601	146	--	92	4	--	--	--	26	70	1,201	60	2	--	60	1,201	26	70	--	--	--	4	92	--	--	--				
Sheridan	34,562	33,319	--	22	143	--	4	--	22	133	802	89	8	8	89	802	22	133	--	--	--	143	22	--	--	7				
Sioux	41,945	40,608	--	47	201	--	6	--	47	127	798	68	12	21	68	798	47	127	--	--	--	201	47	--	--	8				
Thomas	3,739	3,229	--	17	125	--	4	--	--	52	293	4	5	6	4	293	--	52	--	--	--	125	17	--	--	4				
Wheeler	1,873	157	--	34	365	--	14	--	12	171	1,058	29	18	3	29	1,058	12	171	--	--	--	365	34	--	--	12				
Total	230,263	160,316	--	3,768	10,709	--	833	--	1,096	6,132	41,884	3,214	899	422	3,214	41,884	1,096	6,132	--	--	--	10,709	3,768	--	--	776				
All units	456,011	160,316	--	9,940	44,567	4,135	5,992	5,381	12,413	25,900	142,218	11,060	16,516	5,294	11,060	142,218	12,413	25,900	5,381	5,992	4,135	44,567	9,940	--	--	7,148				

Table 2.--Net volume of sawtimber on commercial forest land by county and species group, Nebraska, 1983
(In thousand board feet)^{1/}

County	All species	Species group											Black walnut	Other hardwoods ^{2/}
		Ponderosa pine	Eastern redcedar	Oak	Hickory	Basswood	Soft maple	Elm	Ash	Cotton-wood	Willow	Boxelder	Hackberry	
Adams	5,708	--	58	1,186	30	105	107	146	789	2,354	184	98	429	151
Boone	5,478	--	12	1,296	55	137	138	222	900	1,732	226	184	344	122
Buffalo	16,956	--	615	1,833	30	270	228	220	1,246	11,611	501	175	881	73
Burt	10,661	--	110	2,762	95	308	77	262	1,222	4,166	282	262	611	206
Butler	10,288	--	99	1,344	47	289	228	295	918	5,490	446	179	590	172
Cass	35,726	--	448	4,398	172	909	777	865	4,375	18,765	1,297	563	2,202	483
Cedar	11,292	--	164	3,343	137	650	90	282	1,513	3,124	162	467	814	430
Clay	3,992	--	42	883	11	65	29	69	500	1,758	95	43	283	144
Colfax	7,614	--	65	1,110	6	137	44	129	864	4,059	274	127	409	166
Cuming	17,959	--	226	2,173	95	577	354	398	1,565	10,272	586	208	994	222
Custer	25,652	--	499	4,412	73	1,588	222	374	3,673	10,988	649	888	1,478	260
Dakota	14,731	--	120	3,641	98	348	241	358	1,841	5,809	432	310	1,047	181
Dawson	10,869	--	533	659	7	108	61	110	591	7,742	255	107	411	90
Dixon	13,477	--	94	4,868	230	499	33	382	1,784	2,944	98	534	1,092	164
Dodge	18,490	--	368	1,268	57	507	336	281	1,553	11,817	576	134	1,166	158
Douglas	15,566	--	32	4,638	169	293	242	536	1,602	5,239	485	386	1,091	338
Fillmore	2,013	--	26	209	8	63	41	43	387	946	71	84	122	17
Franklin	8,132	--	51	1,775	64	199	122	215	1,187	3,273	230	187	494	134
Frontier	3,116	--	17	755	27	83	71	113	251	1,258	128	74	204	65
Furnas	9,548	--	226	732	31	226	172	171	708	6,138	315	89	521	78
Gage	17,332	--	50	4,519	147	423	330	563	3,263	5,140	561	551	1,118	323
Gosper	988	--	16	115	--	31	9	17	93	536	40	23	64	15
Greely	600	--	17	72	--	49	7	8	39	293	24	26	46	3
Hall	10,677	--	347	618	27	282	164	128	693	7,384	273	67	528	37
Hamilton	4,565	--	90	537	5	148	42	64	421	2,658	141	70	231	65
Harlan	6,369	--	62	751	--	64	49	110	696	3,589	258	97	376	126
Hitchcock	7,421	--	31	1,383	45	153	168	240	995	3,099	306	149	528	217
Howard	8,376	--	100	977	--	147	68	142	869	4,663	342	153	516	149
Jefferson	27,636	--	282	4,427	126	971	516	645	5,167	11,330	910	767	1,734	407
Johnson	19,692	--	213	2,479	96	575	439	533	2,115	9,991	795	354	1,377	302
Kearney	300	--	6	11	--	--	5	6	24	187	16	6	26	2
Lancaster	14,673	--	155	1,655	73	375	352	414	1,350	8,003	622	214	953	290
Madison	4,978	--	50	622	--	75	36	84	543	2,758	197	82	287	99
Merrick	11,070	--	460	867	33	234	131	161	624	7,462	267	124	461	85
Nance	21,367	--	277	2,243	80	461	435	532	1,842	12,281	901	310	1,290	314
Nemaha	18,021	--	175	2,492	10	337	118	307	1,984	9,691	672	316	1,014	370
Nuckolls	13,331	--	293	1,170	63	374	307	314	928	8,212	487	159	735	130
Otoe	25,381	--	256	3,491	141	585	632	850	2,184	13,298	1,173	455	1,389	548
Pawnee	20,287	--	450	1,627	79	558	422	414	1,666	12,486	718	259	1,176	152
Phelps	1,277	--	14	350	14	28	15	25	96	555	19	16	97	41
Pierce	3,694	--	91	338	--	192	45	59	260	1,981	167	128	298	21
Platte	13,012	--	163	1,471	72	386	340	356	1,007	7,417	528	166	792	157
Polk	6,497	--	145	609	13	191	75	72	1,013	3,710	146	97	300	49
Red Willow	9,644	--	161	870	41	255	213	219	755	5,847	366	110	567	99
Richardson	21,375	--	205	2,590	--	243	158	364	2,347	11,979	857	329	1,242	427
Saline	17,456	--	200	1,906	96	468	457	520	1,399	9,796	775	285	1,070	253
Sarpy	14,070	--	114	4,461	188	268	188	460	1,517	4,317	321	400	1,085	212

(Table 2 continued on next page)

^{1/} International 1/4-inch rule.

^{2/} Other hardwoods - Texas Buckeye, paper birch, honeylocust, Kentucky coffeetree, mulberry, osage orange, catalpa, black locust

(Table 2 continued)

County	All species	Species group											Black walnut	Other hardwoods	
		Ponderosa pine	Eastern redcedar	Oak	Hickory	Basswood	Soft maple	Elm	Ash	Cottonwood	Willow	Boxelder			Hackberry
Saunders	19,235	--	574	1,219	51	392	326	330	1,261	12,691	655	217	1,076	127	316
Seward	12,293	--	104	1,537	70	301	320	399	1,155	6,347	567	209	814	291	179
Sherman	5,175	--	118	490	13	91	58	77	437	3,242	155	53	272	57	112
Stanton	8,482	--	161	587	17	254	113	96	1,454	4,379	216	129	748	216	112
Thayer	7,489	--	104	601	--	39	83	135	712	4,440	352	130	542	101	250
Thurston	27,698	--	382	5,024	47	5,244	190	1,175	1,790	10,735	562	283	1,517	337	412
Valley	2,083	--	39	181	--	55	24	35	176	1,179	96	53	157	22	66
Washington	24,281	--	106	8,732	249	487	344	722	2,299	7,183	608	560	1,893	400	698
Wayne	3,334	--	--	1,053	26	50	20	85	362	1,207	77	59	197	85	113
Webster	18,148	--	188	2,141	90	449	431	486	2,418	9,337	721	331	1,083	241	232
York	2,551	--	40	194	9	54	58	61	196	1,539	113	37	176	23	51
Total	698,126	--	10,044	106,677	3,363	22,650	11,301	16,679	73,619	350,427	23,232	12,823	42,958	10,239	14,114
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Antelope	27,919	6,108	328	3,701	--	181	--	79	1,449	15,264	578	--	98	54	79
Arthur	1,222	--	--	40	--	--	--	--	59	1,040	58	--	25	--	--
Banner	14,094	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Blaine	3,510	377	19	654	--	40	--	--	253	2,085	73	--	--	3	6
Box Butte	166	--	--	--	--	--	--	--	33	100	33	--	--	--	--
Boyd	24,085	10,681	500	1,535	--	51	--	57	1,217	9,028	861	--	62	37	56
Brown	29,189	16,798	444	2,578	--	700	--	--	920	7,058	224	--	212	118	137
Chase	730	--	14	20	--	--	--	--	29	625	29	--	13	--	--
Cherry	41,639	27,107	423	2,450	--	81	--	34	929	9,885	481	--	87	65	97
Cheyenne	601	--	--	--	--	--	--	--	--	601	--	--	--	--	--
Dawes	248,606	239,628	30	395	--	12	--	69	477	7,437	421	--	137	--	--
Deuel	546	--	29	--	--	--	--	--	63	391	63	--	--	--	--
Dundy	4,437	320	59	339	--	17	--	22	246	3,228	169	--	37	--	--
Garden	2,128	947	72	20	--	--	--	--	29	1,019	28	--	13	--	--
Garfield	5,163	2,014	42	462	--	23	--	--	173	2,345	66	--	24	6	8
Grant	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hayes	2,381	1,363	39	38	--	--	--	11	106	716	104	--	--	2	2
Holt	54,227	21,645	1,237	4,904	--	176	--	57	2,158	22,436	1,135	--	197	113	169
Hooker	2,101	535	25	335	--	17	--	--	117	1,033	35	--	--	2	2
Keith	8,879	--	234	223	--	6	--	136	451	7,318	425	--	86	--	--
Keya Paha	45,798	30,055	662	3,384	--	90	--	33	1,161	9,611	437	--	61	121	183
Kimball	1,893	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Knox	59,087	19,824	1,271	6,541	--	1,523	--	12	2,676	25,279	925	--	567	220	249
Lincoln	14,087	2,051	1,358	132	--	--	--	33	798	8,910	805	--	--	--	--
Logan	1,976	1,165	152	205	--	6	--	--	51	366	17	--	--	6	8
Loup	1,743	192	10	289	--	17	--	--	149	1,009	73	--	--	2	2
McPherson	781	312	--	98	--	6	--	--	35	321	9	--	--	--	--
Morrill	4,040	463	235	--	--	--	--	45	253	2,787	257	--	--	--	--
Perkins	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rock	12,356	5,288	286	1,343	--	57	--	22	462	4,634	175	--	25	26	38
Scotts Bluff	6,092	623	370	20	--	--	--	21	213	4,619	215	--	11	--	--
Sheridan	165,662	161,587	19	452	--	23	--	12	372	2,899	266	--	24	3	5
Stouss	204,763	200,459	64	591	--	23	--	58	295	3,049	177	--	25	9	13
Thomas	17,097	15,344	24	380	--	22	--	--	118	1,188	17	--	--	2	2
Wheeler	6,749	781	10	1,150	--	74	--	12	397	4,239	69	--	13	2	2
Total	1,013,747	781,654	7,956	32,279	--	3,145	--	713	15,689	160,520	8,225	--	1,717	791	1,058
All units	1,711,873	781,654	18,000	138,956	3,363	25,795	11,301	17,392	89,308	510,947	31,457	12,823	44,675	11,030	15,172