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Cover Crop Utilization across Nebraska and Implications for Cropland Lease Arrangements in 2019

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Cornhusker Economics

Cover Crop Utilization across Nebraska and Implications for Cropland Lease Arrangements in 2019

Market Report	Year Ago	4 Wks Ago	6-28-19
Livestock and Products.			
Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	NA	*	*
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	NA	NA	175.56
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	NA	NA	145.77
Choice Boxed Beef, 600-750 lb. Carcass.	NA	223.40	219.55
Western Corn Belt Base Hog Price Carcass, Negotiated	NA	75.47	NA
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	NA	182.86	72.66
Slaughter Lambs, woolled and shorn, 135-165 lb. National.	NA	155.52	156.37
National Carcass Lamb Cutout FOB.	NA	389.08	392.01
Crops.			
Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	NA	4.41	3.94
Corn, No. 2, Yellow Columbus, bu.	NA	4.02	4.05
Soybeans, No. 1, Yellow Columbus, bu.	NA	7.80	7.92
Grain Sorghum, No.2, Yellow Dorchester, cwt.	NA	6.50	6.34
Oats, No. 2, Heavy Minneapolis, Mn, bu.	NA	3.55	3.20
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	NA	*	177.00
Alfalfa, Large Rounds, Good Platte Valley, ton.	NA	150.00	*
Grass Hay, Large Rounds, Good Nebraska, ton.	NA	97.50	*
Dried Distillers Grains, 10% Moisture Nebraska Average.	NA	130.00	140.50
Wet Distillers Grains, 65-70% Moisture Nebraska Average.	NA	50.00	48.50
* No Market			

The Nebraska Farm Real Estate Market Survey and Report 2018-2019 provides insight on recent trends in the market value of land and cash rental across the state. Each year the special feature section from this report covers topics on new or emerging issues related to the agricultural land industry in Nebraska. These topics reflect interest expressed by panel members and readership of the Nebraska Farm Real Estate Market Highlights Reports. The special feature section in 2019 focuses on trends and considerations for cover crops across Nebraska and implications on cropland lease arrangements.

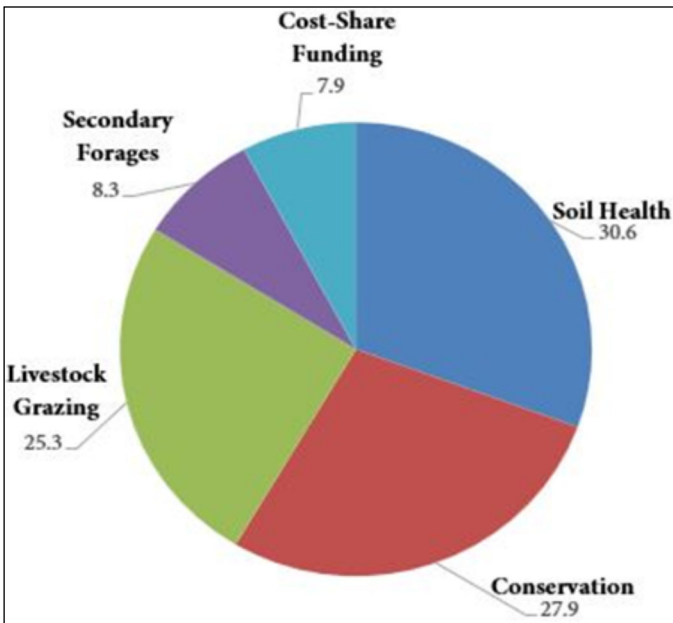
Findings from the 2017 Census of Agriculture in Table 1 provide an overview of the utilization of cover crops across the eight districts of the state (USDA-NASS, 2019). Approximately 748 thousand acres of cover crops were grown by about 38 thousand operators on approximately 22 million acres of cropland across Nebraska in 2017. Cover crops were planted on about 3.4 percent of cropland acres across the state by 4,419 operators.

The number of cropland acres in each district varied greatly across the state. Utilization of cover crops also varied greatly across the eight regions. Arid areas such as the Northwest, North, and Southwest Districts tended to grow around 50 thousand acres of cover crops on roughly 2.4 percent of the cropland acres. The Northeast, Central and East Districts each planted around 100,000 acres or more of cover crops on roughly 4.2 percent of the cropland acres. The number of operators in each of these regions planting cover crops also varied. In percentage terms, the cropland operators planting cover crops varied from a low of 7.4 percent in the Northwest District compared to a high 14.8 percent in the Central District.

When planting a cover crop across Nebraska, the motivation of the landowner or operator may vary depending upon their agronomic needs and/or management requirements. Increased interest in cover crops in recent years has come from the perceived benefits to the land and mitigation of environmental issues. Cover crops are used to reduce soil degradation (i.e. erosion) as well as enhance soil quality (i.e. organic matter and nutritive content). These effects may take multiple years to fully materialize but they also tend to persist for several years into the future. Grazing the cover crops or harvesting for forage are perceived as viable options for generating benefits on a more immediate basis.

The underlying motivation for utilizing cover crops remains important as the operator may incur additional establishment and termination expenses for the land in the year of use while the benefits provided may be spread out over several years into the future. Figure 1 summarizes the major reasons for planting cover crops across Nebraska.

Figure 1. Reasons for Planting Cover Crops on Cropland in Nebraska

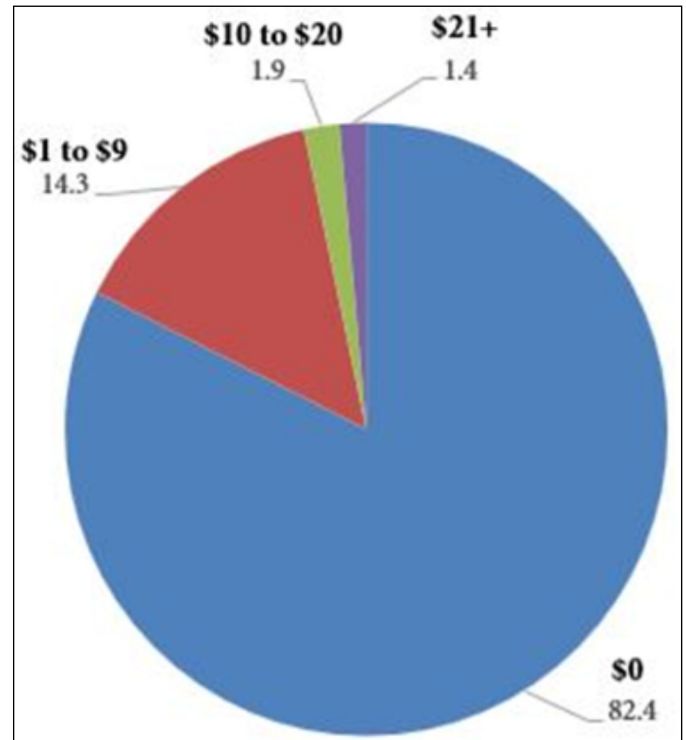


Source: UNL Nebraska Farm Real Estate Market Survey, 2019.

Panel members reported environmental benefits such as soil health and conservation accounted for nearly 60 percent of the reasoning or motivation behind utilizing cover crops. Livestock grazing and use as a secondary forage in a rotation accounted for an additional 33.6 percent of the reasoning for planting a cover crop on an agricultural property. An ability to obtain cost-share funding only attributed to about eight percent of the motivation behind adopting this practice.

Division of cover crop establishment expenses remains a provision to consider in a cropland lease arrangement. Benefits from utilizing a cover crop may exceed the length of the current lease. Figure 2 summarizes the dollar per acre rental discount on a cropland lease provided to a tenant when planting a cover crop.

Figure 2. Rental Discount in Dollars per Acre on Land Lease When Tenant Plants Cover Crops in Nebraska



Source: UNL Nebraska Farm Real Estate Market Survey, 2019.

Panel members indicated that slightly over 80 percent of land leases do not provide a discount to tenants for planting cover crops. About 15 percent of leases provided a small discount, between \$1 and \$9 per acre. Opportunities exist in lease negotiations to more equitably divide cover crop expenses.

Survey results shown and discussed in this report are findings from the University of Nebraska–Lincoln 2019 Nebraska Farm Real Estate Market Survey. Complete results from the survey may be found at the Nebraska Farm Real Estate website: <http://agecon.unl.edu/realestate>.

Please address questions regarding preliminary estimates from the 2018 Nebraska Farm Real Estate Survey to Jim Jansen at (402) 261-7572 or jjansen4@unl.edu.

Table 1. Cover Crop Practices for Cropland and Operators in 2017, by Agricultural Statistics District in Nebraska^a

County and Agricultural Statistics District	Planted Acres		Cropland Acres Planted to Cover Crops	Number of Operators		Cropland Operators Planted Cover Crops
	Cover Crops	Cropland		Planted Cover Crops	Planted Cropland	
	----- Acres -----		--- Percent ---	----- Number -----		--- Percent ---
Banner	1,710	191,224	0.9	14	193	7.3
Box Butte	11,241	346,638	3.2	31	329	9.4
Cheyenne	3,881	528,751	7.3	29	492	6.0
Dawes	2,383	174,531	1.4	22	368	6.0
Deuel	1,256	226,814	0.6	5	201	2.5
Garden	2,426	166,330	1.5	8	179	4.5
Kimball	2,740	410,680	0.7	16	369	4.3
Morrill	11,727	242,450	4.8	37	351	10.5
Scotts Bluff	7,619	218,126	3.5	63	573	11.0
Sheridan	6,152	301,456	2.0	28	416	6.7
Sioux	1,749	97,637	1.8	21	211	10.0
Northwest	52,884	2,904,637	1.8	274	3,682	7.4
Arthur	730	31,693	2.3	8	61	13.1
Blaine	395	28,818	1.4	6	58	10.3
Boyd	2,511	135,575	1.9	22	241	9.1
Brown	5,116	108,102	4.7	18	181	9.9
Cherry	3,898	383,698	1.0	19	377	5.0
Garfield	1,250	66,383	1.9	13	121	10.7
Grant	b	50,552	-	1	43	2.3
Holt	27,584	607,954	4.5	130	899	14.5
Hooker	b	6,797	-	1	20	5.0
Keya Paha	3,851	95,619	4.0	13	170	7.6
Logan	999	41,865	2.4	7	65	10.8
Loup	845	24,049	3.5	9	93	9.7
McPherson	932	22,733	4.1	4	50	8.0
Rock	2,050	121,374	1.7	14	148	9.5
Thomas	b	7,406	-	3	29	10.3
Wheeler	7,828	87,779	8.9	38	130	29.2
North	57,989	1,820,397	3.2	306	2,686	11.4
Antelope	23,516	364,429	6.5	117	583	20.1
Boone	9,321	319,202	2.9	67	470	14.3
Burt	3,348	275,222	1.2	42	476	8.8
Cedar	8,347	393,200	2.1	87	692	12.6
Cuming	11,672	330,140	3.5	82	691	11.9
Dakota	81	151,099	0.1	3	244	1.2
Dixon	6,403	221,799	2.9	62	463	13.4
Knox	10,298	323,551	3.2	109	792	13.8
Madison	25,538	312,084	8.2	141	593	23.8
Pierce	14,727	275,201	5.4	119	540	22.0
Stanton	12,148	203,713	6.0	65	493	13.2
Thurston	2,714	206,766	1.3	19	279	6.8
Wayne	5,772	253,645	2.3	47	401	11.7
Northeast	133,885	3,630,051	3.7	960	6,717	14.3

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Table 1. Cover Crop Practices for Cropland and Operators in 2017, by Agricultural Statistics District in Nebraska^a (continued)

County and Agricultural Statistics District	Planted Acres		Cropland Acres Planted to Cover Crops	Number of Operators		Cropland Operators Planted Cover Crops
	Cover Crops	Cropland		Planted Cover Crops	Planted Cropland	
	----- Acres -----		--- Percent ---	----- Number -----		--- Percent ---
Buffalo	10,066	324,488	3.1	70	744	9.4
Custer	34,485	481,876	7.2	175	779	22.5
Dawson	12,893	303,662	4.2	62	518	12.0
Greeley	10,719	156,471	6.9	74	321	23.1
Hall	4,955	272,034	1.8	30	489	6.1
Howard	14,522	177,984	8.2	97	504	19.2
Sherman	3,615	158,959	2.3	34	302	11.3
Valley	7,230	172,629	4.2	43	292	14.7
Central	98,485	2,048,103	4.8	585	3,949	14.8
Butler	19,312	319,085	6.1	94	600	15.7
Cass	7,478	306,383	2.4	71	628	11.3
Colfax	15,898	240,401	6.6	81	443	18.3
Dodge	7,903	312,456	2.5	59	627	9.4
Douglas	3,808	81,581	4.7	26	303	8.6
Hamilton	17,796	286,661	6.2	49	485	10.1
Lancaster	14,361	362,935	4.0	133	1,547	8.6
Merrick	12,302	201,497	6.1	60	388	15.5
Nance	10,285	158,833	6.5	62	311	19.9
Platte	18,908	336,411	5.6	96	768	12.5
Polk	8,274	224,983	3.7	31	407	7.6
Sarpy	1,078	92,986	1.2	38	348	10.9
Saunders	17,747	436,188	4.1	110	952	11.6
Seward	18,924	310,452	6.1	104	811	12.8
Washington	1,949	215,935	0.9	34	602	5.6
York	10,193	327,256	3.1	54	475	11.4
East	186,216	4,214,043	4.4	1,102	9,695	11.4
Chase	8,375	322,955	2.6	28	244	11.5
Dundy	1,322	210,461	0.6	14	245	5.7
Frontier	6,024	203,805	3.0	35	243	14.4
Hayes	5,046	195,667	2.6	17	180	9.4
Hitchcock	662	228,336	0.3	16	241	6.6
Keith	7,805	226,675	3.4	21	245	8.6
Lincoln	23,661	421,610	5.6	87	687	12.7
Perkins	6,302	432,062	1.5	31	343	9.0
Red Willow	1,656	248,186	0.7	16	258	6.2
Southwest	60,853	2,489,757	2.4	265	2,686	9.9

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Table 1. Cover Crop Practices for Cropland and Operators in 2017, by Agricultural Statistics District in Nebraska^a (continued)

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	Cover Crops	Cropland		Planted Cover Crops	Planted Cropland	
	----- Acres -----		--- Percent ---	----- Number -----		--- Percent ---
Adams	15,816	300,549	5.3	55	439	12.5
Franklin	10,426	187,011	5.6	44	275	16.0
Furnas	2,571	291,461	0.9	20	315	6.3
Gosper	7,823	150,248	5.2	41	225	18.2
Harlan	4,330	220,639	2.0	40	224	17.9
Kearney	28,534	244,933	11.6	67	299	22.4
Phelps	7,534	277,090	2.7	41	328	12.5
Webster	6,213	206,158	3.0	35	326	10.7
South	83,247	1,878,089	4.4	343	2,431	14.1
Clay	6,836	259,454	2.6	31	363	8.5
Fillmore	7,011	305,326	2.3	35	404	8.7
Gage	8,900	449,429	2.0	88	987	8.9
Jefferson	3,002	283,739	1.1	36	517	7.0
Johnson	8,544	137,665	6.2	32	446	7.2
Nemaha	6,177	229,970	2.7	62	365	17.0
Nuckolls	8,344	248,692	3.4	65	381	17.1
Otoe	5,506	331,038	1.7	58	718	8.1
Pawnee	1,189	183,745	0.6	19	407	4.7
Richardson	7,316	272,419	2.7	73	630	11.6
Saline	4,819	305,041	1.6	41	653	6.3
Thayer	5,559	251,004	2.2	44	367	12.0
Southeast	73,203	3,257,522	2.2	584	6,238	9.4
State ^c	747,903	22,242,599	3.4	4,419	38,084	11.6

Source: ^a 2017 Census of Agriculture, National Agricultural Statistical Service, USDA.

^b Value not released due to county-level disclosure.

^c District values may not sum to state totals due to county-level disclosure.

References

Jansen, J. A. & J. Stokes. (2019, June). Nebraska Farm Real Estate Market Highlights Survey and Report. *Nebraska Farm Real Estate Market Developments Highlights 2018-2019*, 196, 1-63. Department of Agricultural Economics, University of Nebraska–Lincoln.

USDA-National Agricultural Statistics Service. (2019). 2017 Census of Agriculture. *Chapter 2, Table 41 - Land Use Practices*, retrieved June 13, 2019, from United State Department of Agriculture Farm Services Agency: https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/2/table/41/state/NE/county.

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