

South Dakota Agricultural Land Market Trends, 1991-2021: Results from the 2021 South Dakota State University **Extension South Dakota Farm Real Estate Survey**



Crop residue grazing in northeast South Dakota

The 2021 South Dakota State University (SDSU) Extension Farm Real Estate Market Survey is the 31st annual survey of agricultural land values and cash rental rates by land use and quality in different regions of South Dakota. This report contains an overview and may or may not reflect actual land values or cash rental rates unique to specific localities or properties. Readers should use this report as a general reference and rely on local sources for specific details.

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South Dakota Cash Rental Rates and **Agricultural Land Values**

ash rental rates for each region are summarized in Table 1. The same information is summarized by region and county cluster in Table 2. The statewide change in average cash rental rates per- acre from 2020 to 2021 increased \$5 for cropland and \$4 for pasture/ rangeland. There is no new information on irrigated land due to insufficient response.







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Survey methods and response characteristics

The primary purpose of the 2021 South Dakota Farm Real Estate Market Survey was to obtain regional and statewide information on 2021 per-acre agricultural land values and cash rental rates by land use and land productivity.

E-mails were sent to 600 potential respondents. The survey links were also posted in the South Dakota Banker's Association Newsletters and the American Society for Farm Management and Rural Appraisal (ASFMRA).

Potential respondents were persons employed in one of the following occupations: 1) agricultural lenders (senior agricultural loan officers of commercial banks or Farm Credit Service), 2) loan officers or county directors of the USDA Farm Service Agency (FSA), 3) Extension Service agricultural field specialists, and 4) licensed appraisers and assessors.

Respondents were asked to report land values



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Appendix Table 1. Participant's main occupation

Occupation	Percentage
Extension	3%
Bank Loan Officer	26%
Farm Service Agency	8%
Realtor/Broker	3%
Appraiser	36%
Assessor	1%
Insurance Agent	0%
Other	23%

and cash rental rate information for nonirrigated cropland, rangeland/pastureland in their locality. Nearly one-third of respondents reported land market information for at least two counties. The number of responses exceeded the number of respondents as some persons (primarily appraisers and lenders) completed multiple survey schedules providing different land value and cash rental data for different counties in their trade territory. Overall, a total of 70 respondents provided 100 usable responses (Appendix Table 1).

Regional average land values by land use are simple average (mean) values of usable responses. Statewide average land values by land use are weighted by the relative number of acres in each region in the same land use.

Prior to 2017 all-agricultural land values, regional and statewide, are weighted by the proportion of acres in each agricultural land use. Thus, all-agricultural land values in this report are weighted average values by region and land use. This weighted average approach is analo-

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gous to the cost (inventory) approach of estimating farmland values in rural land appraisal.

This approach has important implications in the derivation of statewide average land values and regional all-land values. For example, the two western regions of South Dakota with the lowest average land values have nearly 61% of the state's rangeland acres, 39% of all-agricultural land acres and only 16% of cropland acres. Our approach increases the relative importance of western South Dakota land values in the final computations and results in lower statewide average land values.

The weighting factors used to develop state-wide average land values are based on estimates of non-irrigated agricultural land use for private-ly owned farmland in South Dakota. It excludes agricultural land (mostly rangeland) leased from tribal or federal agencies, which is mostly located in the western and central regions of the state. Irrigated land is also excluded from regional and statewide all-land values. The land-use weighting factors were developed from county-level data in the 2017 South Dakota Census of Agriculture and other sources.

Regional average rental rates by land use are simple average (mean) values of usable responses. Statewide average cash rental rates for each land use are weighted by 1) the relative number of acres in each land use and 2) the proportion of farmland acres leased in each region based on 2017 Census of Agriculture data.

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Table 4. Average reported value and annual percentage change in value of South Dakota agricultural land by type of land by region.

Type of land	South- east	East Central	North- east	North Central	Central	South Central	South- west	North- west	State	
		dollars per acre								
Nonirrigated Cropland										
Average value, 2021	\$5,563	\$5,780	\$4,740	\$3,719	\$3,452	\$2,101	\$1,055	\$1,421	\$3,814	
Average value, 2020	\$5,388	\$5,433	\$4,597	\$3,370	\$3,502	\$1,901	\$1,027	\$1,318	\$3,638	
Average value, 2019	\$5,648	\$5,400	\$4,606	\$3,447	\$3,764	\$1,937	\$1,188	\$1,408	\$3,747	
Average value, 2018	\$6,361	\$6,237	\$4,546	\$3,534	\$3,347	\$2,125	\$1,207	\$1,369	\$3,937	
Average value, 2017**	\$5,569	\$6,160	\$4,654	\$4,030	\$3,291	\$2,203	\$1,427	\$1,142	\$3,903	
Annual % change 21/20	3.2%	6.4%	3.1%	10.4%	-1.4%	10.5%	2.7%	7.8%	4.8%	
Pasture/Rangeland**	200			~	~					
Average value 2021	\$2,499	\$2,792	\$1,829	\$1,453	\$1,640	\$1,112	\$747	\$757	\$1,140	
Average value, 2020	\$2,440	\$2,680	\$1,845	\$1,517	\$1,737	\$1,147	\$775	\$765	\$1,162	
Average value, 2019	\$2,518	\$3,159	\$1,876	\$1,463	\$1,863	\$1,146	\$749	\$810	\$1,203	
Average value, 2018	\$2,829	\$2,624	\$2,178	\$1,718	\$1,882	\$1,241	\$839	\$781	\$1,252	
Average value, 2017**	\$2,450	\$2,546	\$2,089	\$1,914	\$2,011	\$1,150	\$887	\$650	\$1,215	
Annual % change 21/20	2.4%	4.2%	-0.9%	-4.2%	-5.6%	-3.1%	-3.6%	-1.0%	-1.9%	

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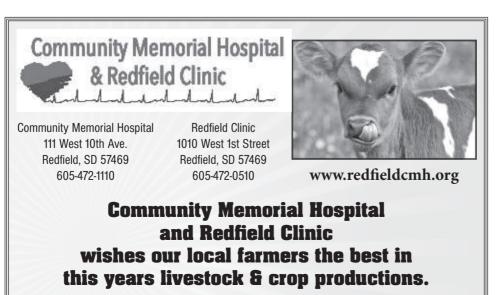
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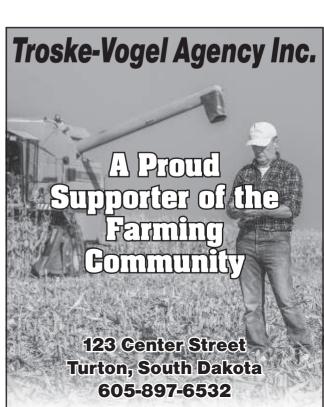
or 2021, the statewide average of nonirrigated cropland values increased almost 5.0% (Table 4).

Statewide average is \$3,814 in 2021 com-

pared to \$3,638 in 2020.

Pasture/rangeland (all grass acres) In 2021, the survey value of South Dakota pasture/rangeland was steady to slightly down, average \$1,140 per acre. The value according survey responses is down almost 2.0% in value per acre compared to values from 2020.





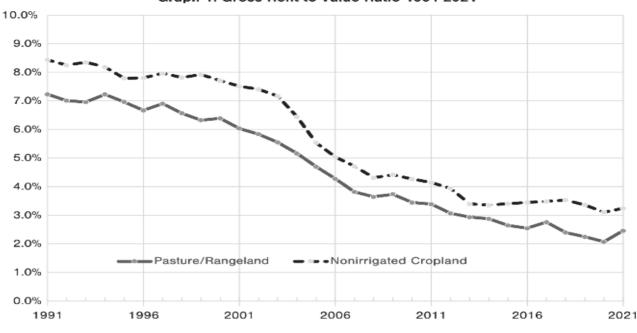
Rates of Return to South Dakota **Agricultural Land**

The gross rate of return (gross cash rent as a percent of land value) is used to estimate current rates of return to land. It is calculated from a respondent's reported average cash rental rates and their reported values of leased land. This is a measure of the gross rate of return obtained by landlords, before deduction of property taxes and other landlord expenses. The 1991 to 2021 trend in the gross cash rent-to-value ratio is depicted in Graph 1.

In 2021, the statewide average gross rates of return (rent-to-value ratio) fluctuated somewhat across land use categories:

- 2.5% for pasture/rangeland.
- 3.2% for non-irrigated cropland. This is the 10th year that the gross rates of return for cropland has been 4.0% or lower (Graph 1). The gross rent-to-value ratio generally follows interest rates.

Graph 1. Gross Rent-to-Value Ratio 1991-2021



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Table 1. Reported cash rental rates of South Dakota agricultural land by type of land by region, 2016-2021.

Type of Land	South- east	East Central	North- east	North Central	Central	South Central	South- west	North- west	State	
		dollars per acre								
Nonirrigated Cropland										
Average 2021 rate	\$185	\$184	\$150	\$120	\$97	\$79	\$29	\$45	\$118	
High Productivity	\$223	\$212	\$198	\$150	\$125	\$85	\$39	\$48	#####	
Low Productivity	\$154	\$136	\$96	\$73	\$70	\$51	\$25	\$33		
Average 2020 rate	\$179	\$173	\$146	\$109	\$99	\$72	\$29	\$42	\$113	
Average 2019 rate	\$188	\$172	\$155	\$111	\$102	\$73	\$33	\$45	\$126	
Average 2018 rate	\$204	\$193	\$166	\$126	\$118	\$89	\$33	***	\$139	
Average 2017 rate	\$190	\$193	\$163	\$128	\$112	\$70	\$54	\$41	\$136	
Average 2016 rate	\$188	\$201	\$169	\$131	\$115	\$71	\$43	\$43	\$141	
Pasture/Rangeland					hu-	M				
Average 2021 rate	\$56	\$57	\$63	\$45	\$39	\$27	\$14	\$15	\$28	
High Productivity	\$72	\$73	\$91	\$60	\$49	\$42	\$24	\$21	444	
Low Productivity	\$42	\$41	\$38	\$28	\$26	\$18	\$9	\$9		
Average 2020 rate	\$54	\$59	\$64	\$47	\$41	\$30	\$16	\$15	\$24	
Average 2019 rate	\$58	\$76	\$65	\$47	\$45	\$30	\$16	\$15	\$27	
Average 2018 rate	\$66	\$75	\$69	\$50	\$50	\$37	\$16	***	\$30	
Average 2017 rate	\$81	\$78	\$62	\$58	\$62	\$38	\$14	\$15	\$30	
Average 2016 rate	\$68	\$77	\$60	\$51	\$53	\$45	\$18	\$19	\$31	

Longer Term Perspective on Farmland Market Changes, 1991 – 2020

Since the amount of land devoted to production agriculture has changed little during this 30-year period, the supply of land is considered relatively fixed.

As a result, changes in demand for land are the main factors driving its value and market price. Many factors influence the demand for agricultural land, and yields of other risk free assets, or returns from risky assets.

There are a few key elements driving changes in farm land values. These include cash rent, working capital, supply of land, interest rates, inflation and similar investments.

These elements can be divide into two groups. First cash rents and working capital have improved from 2020. Working capital was improved with the increase in crop prices and the influx of government aid for disaster and virus relief. The

increase in input prices in 2021 and 2022 will put pressure on profit margins for next year's crop. The second group, supply of land, interest rates, inflation and investment prospective are creating positive pressure on land values.

Longer-term historical data from annual SDSU

Extension surveys of agricultural land values and cash rental rates in South Dakota from 1991 to 2020 are located in Appendix Tables 2 and 3 of this report.

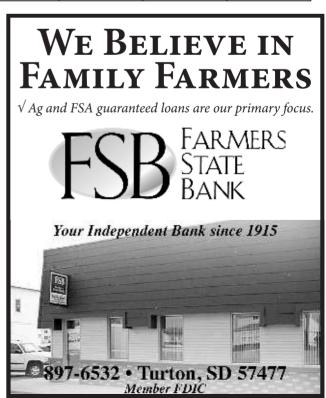


Table 5. Average reported value per acre of agricultural land by South Dakota region, county clusters, type of land and land productivity, February 2016 - 2021.

			Southeast		East Central				
Agricultural Land Type and Productivity	All	Clay Lincoln Turner Union	Bon Homme Hutchinson Yankton	Charles Mix Douglas	All	Minnehaha Moody	Brookings Lake McCook	Sanborn Davison Hanson Kingsbury Miner	
				dollars	per acre				
Nonirrigated Cropland									
Average 2021	\$5,563	\$7,200	\$5,500	\$3,990	\$5,780	\$7,867	\$6,503	\$4,305	
High Productivity	\$6,931	\$9,365	\$6,354	\$4,778	\$7,195	\$10,695	\$8,820	\$5,581	
Low Productivity	\$4,391	\$4,900	\$4,237	\$4,172	\$4,350	\$5,117	\$5,001	\$3,969	
Average 2020 rate	\$5,388	\$6,793	\$5,237	\$3,800	\$5,433	\$7,337	\$5,973	\$4,152	
Average 2019 rate	\$5,648	\$7,120	\$4,974	\$3,750	\$5,400	\$7,500	\$6,500	\$4,343	
Average 2018 rate	\$6,361	\$7,490	\$5,359	\$3,900	\$6,237	\$7,575	\$6,165	\$5,148	
Average 2017 rate	\$5,570	\$6,700	\$5,427	\$4,425	\$6,160	\$7,265	\$6,715	\$5,156	
Average 2016 rate	\$5,653	\$6,684	\$5,089	\$4,563	\$6,116	\$8,262	\$6,119	\$4,788	
Pasture/Rangeland**									
Average 2021 rate	\$2,499	\$2,974	\$2,473	\$2,050	\$2,792	\$3,369	\$2,331	\$2,675	
High Productivity	\$3,098	\$3,800	\$2,895	\$2,600	\$3,767	\$4,150	\$3,750	\$3,400	
Low Productivity	\$1,791	\$2,220	\$1,803	\$1,350	\$2,030	\$2,560	\$1,730	\$1,800	
Average 2020 rate	\$2,440	\$2,876	\$2,469	\$2,043	\$2,680	\$3,333	\$2,320	\$2,670	
Average 2019 rate	\$2,518	\$2,933	\$2,500	\$2,050	\$3,159	\$3,583	\$2,500	\$3,071	
Average 2018 rate	\$2,829	\$3,250	\$2,470	\$2,100	\$2,624	\$3,313	\$2,318	\$2,318	
Average 2017 rate	\$2,450	\$2,688	\$2,471	\$2,175	\$2,546	\$2,960	\$2,400	\$2,518	
Average 2016 rate	\$2,566	\$2,567	\$2,573	\$2,550	\$2,781	\$3,253	\$2,506	\$2,667	



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SDSU Extension survey shows uptick in state cropland values BROOKINGS — The average value of non-ir-

BROOKINGS — The average value of non-irrigated land has increased along with cash rental rates for both non-irrigated cropland and pasture, according to the latest South Dakota State University (SDSU) Extension Farm Real Estate Market Survey. The 31st annual survey examines agricultural land values and cash rental rates by land use and quality in different regions of South Dakota.

"Cash rents for state averages were up slightly. Statewide non-irrigated cropland cash rental rates were up \$5 from 2020 and average cash rents increased 4.5%, from \$115 in 2020 to \$118 in 2021. Statewide, average cash rental rates for pasture were \$28, up \$4 from 2020," says Jack Davis, SDSU Extension Crop Business Management Field Specialist, who compiled the report on the survey. "Average non-irrigated land values from February 2020 to February 2021 increased ap-

SURVEY / Page 14

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Table 5. (continued)

		Cer	itral		South Central	South West	North West
Agricultural Land Type and Productivity	All	Aurora Beadle Jerauld	Buffalo Brule Hand Hyde	Hughes Sully	All*	All*	All*
				dollar	s per acre		
Nonirrigated Cropland							
Average 2021 rate	\$3,452	\$3,785	\$3,200	\$2,897	\$2,101	\$1,055	\$1,421
High Productivity	\$4,184	\$5,210	\$4,196	\$3,147	\$2,430	\$1,313	\$1,650
Low Productivity	\$2,369	\$3,021	\$2,296	\$2,307	\$1,630	\$915	\$1,074
Average 2020 rate	\$3,502	\$3,770	\$3,205	\$2,892	\$1,901	\$1,027	\$1,318
Average 2019 rate	\$3,496	\$3,764	\$3,174	\$3,010	\$1,937	\$1,188	\$1,408
Average 2018 rate	\$3,347	\$3,800	\$3,250	\$3,100	\$2,125	\$1,207	\$1,369
Average 2017 rate	\$3,291	\$3,920	\$2,823	***	\$2,203	\$1,428	\$1,142
Average 2016 rate	\$3,843	\$3,512	\$4,267	\$3,600	\$2,168	\$1,264	\$1,187
Pasture/Rangeland**							
Average 2021 rate	\$1,640	\$1,800	\$1,750	\$1,369	\$1,112	\$747	\$757
High Productivity	\$1,961	\$2,452	\$2,211	\$1,221	\$1,320	\$899	\$922
Low Productivity	\$1,117	\$1,282	\$1,195	\$875	\$798	\$669	\$651
Average 2020 rate	\$1,737	\$1,815	\$1,800	\$1,433	\$1,147	\$775	\$765
Average 2019 rate	\$1,863	\$1,859	\$1,870	***	\$1,146	\$749	\$810
Average 2017 rate	\$2,011	\$2,394	\$1,771	\$1,750	\$1,150	\$887	\$650
Average 2016 rate	\$2,219	\$2,528	\$2,035	\$1,750	\$1,330	\$715	\$760

South Dakota agriculture real estate value in 2021 is up from 2020; Cash rent mixed

South Dakota's farm real estate value, a measurement of the worth of all land and buildings on farms, has increased from last year (2020) to this year (2021).

According to USDA's National Agricultural Statistics Service, farm real estate value for 2021 averaged \$2,190

per acre, up \$180 per acre (9%) from last year.

Cropland value increased to \$3,390 per acre, up 12% from last year.

Dryland cropland value averaged \$3,360 per acre, \$360 higher than last year.

REAL ESTATE / Page 13



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Table 5. (continued)

Control of the Control		Nort	heast		North Central				
Agricultural Land Type and Productivity	All	Codington Deuel Hamlin	Grant Roberts	Clark Day Marshall	All	Brown Spink	Edmund Faulk McPherson	Campbell Potter Walworth	
				dollars	per acre				
Nonirrigated Cropland									
Average 2021 rate	\$4,740	\$5,150	\$4,701	\$4,369	\$3,719	\$5,011	\$2,975	\$3,170	
High Productivity	\$6,104	\$6,500	\$6,213	\$5,600	\$4,790	\$7,350	\$3,700	\$3,320	
Low Productivity	\$3,177	\$3,269	\$3,460	\$2,801	\$2,240	\$2,475	\$1,996	\$2,250	
Average 2020 rate	\$4,597	\$5,133	\$4,633	\$4,218	\$3,370	\$4,575	\$2,670	\$3,216	
Average 2019 rate	\$4,606	\$5,143	\$4,800	\$4,200	\$3,447	\$4,860	\$2,733	\$3,320	
Average 2018 rate	\$4,546	\$4,862	\$4,458	\$4,470	\$3,534	\$4,273	\$3,235	\$3,314	
Average 2017 rate	\$4,654	\$4,761	\$4,708	\$4,501	\$4,030	\$4,950	\$3,033	\$3,033	
Average 2016 rate	\$4,613	\$4,673	\$4,969	\$4,300	\$4,177	\$4,983	\$3,604	\$3,273	
Pasture/Rangeland**	636					ini.			
Average 2021 rate	\$1,829	\$1,840	\$1,869	\$1,778	\$1,453	\$1,460	\$1,400	\$1,500	
High Productivity	\$2,815	\$2,601	\$3,326	\$2,517	\$1,933	\$2,170	\$1,650	\$1,978	
Low Productivity	\$1,373	\$1,394	\$1,356	\$1,369	\$1,104	\$1,209	\$900	\$1,203	
Average 2020 rate	\$1,845	\$1,843	\$1,860	\$1,800	\$1,517	\$1,575	\$1,387	\$1,530	
Average 2019 rate	\$1,877	\$1,886	\$1,900	\$1,878	\$1,463	\$1,560	\$1,389	\$1,500	
Average 2018 rate	\$2,178	\$2,150	\$2,253	\$2,120	\$1,718	\$1,955	\$1,744	\$1,060	
Average 2017 rate	\$2,089	\$2,241	\$2,080	\$1,911	\$1,914	\$2,519	\$1,450	\$1,383	
Average 2016 rate	\$2,028	\$2,167	\$1,900	\$1,944	\$1,957	\$2,354	\$1,893	\$1,125	





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Determining an economically optimal nitrogen rate for corn

BY ANTHONY BLY

SDSU EXTENSION SOILS FIELD SPECIALIST

Most everyone has realized that fertilizer prices have drastically increased since last summer. There are many contributing factors for this increase, which aren't relevant in front of the difficult decisions necessary for profitable crop production in 2022. In order to effectively select a profitable Nitrogen (N) rate for corn, it is very important to have an understanding of what leftover (residual) soil nitrate is in the soil, calculate an accurate yield goal and understand how the price of N and corn affect the economically optimal N rate.

South Dakota is on the western edge of the Corn Belt. Our state receives much less precipitation on average than areas to our east. Since we are drier, soil fertility researchers in the Great Plains and South Dakota have found that taking credit for "residual" N is a good practice when determining a fertilizer N rate for corn. The chances of losing the nitrate in the soil are very low, since most of our soils can hold significant amounts of water. Of course, sampling for nitrate-N in the soil as close to corn growth and uptake would be the best management practice; however, any sample from

fall or spring is better than no samples at all.

Determining an accurate yield goal is crucial for determining an accurate N rate. Yield goal, "is not the vield you want, but it is the yield you can get!" Using the Olympic yield average is the best way to determining a vield goal. One should take that last five to 10 years of yield data. Remove the obvious low or high yields and determine the average of the remaining vields. A vield trend adjustment should also be applied to the average to compensate for improved hybrids and corn management. Usually 5% is a good value to increase the average vield. The

yield trend adjustment is flexible and should be determined according to local experience with yield successes or struggles.

Corn response to applied N is not even across the applied N rates. For example, at lower application rates, more bushels of corn are produced

NITROGEN / Page 11



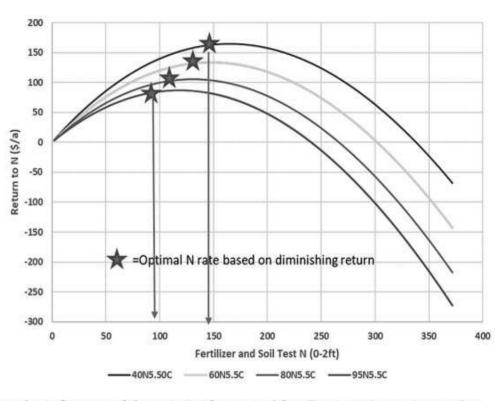


Figure 1. The influence of the prices of corn and fertilizer Nitrogen (N) on the economically optimal N rate for corn in South Dakota.



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Using feedlot manure to reduce crop production costs

BY WARREN RUSCHE

ASSISTANT PROFESSOR & SDSU **EXTENSION FEEDLOT SPECIALIST**

If you were to ask 100 feeders how they assess profitability of cattle feeding, that discussion would be dominated by talk about breakevens, cost of gain and profit/loss on a pen closeout. Adding value to farm-raised crops might come up, especially if the price of grain is low. If manure enters the discussion at all, it is usually only in the context of vardage costs, labor demands and bedding expense.

However, that approach overlooks opportunities to reduce system costs for integrated livestock-crop enterprises. Livestock waste can be a valuable source of crop nutrients when correctly managed. Figure 1 (page 14) shows

the nutrient value of manure per head of capacity for three different beef housing systems. These values assume that the feedlot is full year-round and that 50% of manure Nitrogen (N) is available for crop growth. Manure production estimates were taken from the Iowa State University Beef Feedlot Systems Manual.

Using the price assumptions shown, a 999-head beef facility would generate approximately \$52,000, \$110,000 and \$135,000 worth of crop nutrients for an open vard, bed-pack or slat-floor barn, respectively.

Figure 2 (page 14) shows how these values could change based on fertilizer costs for an open yard. Confinement systems that capture

MANURE / Page 14

Central South Central South West North West Buffalo Brule Type of Land Hand Beadle Hughes Sully Jerauld Hyde dollars per acre Nonirrigated Cropland Average 2021 rate \$97 \$126 \$99 \$87 \$29 \$85 High Productivity \$125 \$170 \$140 \$115 \$39 \$70 \$71 Low Productivity \$79 \$65 \$51 \$99 \$99 \$72 \$29 \$42 Average 2020 rate \$126 \$87 \$102 \$130 \$102 \$90 \$73 \$33 \$45 Average 2019 rate *** \$89 \$33 \$118 \$139 \$115 Average 2018 rate Average 2017 rate \$112 \$133 \$101 \$70 \$54 Pasture/Rangeland Average 2021 rate \$39 \$44 \$41 \$46 \$27 \$14 \$56 \$56 \$55 \$42 \$24 \$21 High Productivity \$63 Low Productivity \$29 \$40 \$32 \$35 \$18 \$9 \$9 Average 2020 rate \$41 \$44 \$41 \$46 \$30 \$16 \$15 *** Average 2019 rate \$45 \$48 \$45 \$30 \$16 \$15 Average 2018 rate \$50 \$60 \$48 \$37 \$16 \$49 \$34 Average 2017 rate

NITROGEN:

compared to higher application rates, where the incremental yield increase is diminished to a point of no further vield improvement. The price of corn and nitrogen can greatly influence the point of diminishing returns on the corn response curve for nitrogen. When corn and fertilizer N are relatively low, the effect of price is minimized. However, during a year when prices are high, the effect is much greater

From Page 10

and is noticeable. Look how the price of N can influence the economically optimal N rate when the price of corn is held constant (Figure 1). As the price of N increases, the economically optimal N rate decreases. While we cannot know what the price of N will be next year, it is very important to understand how the level of both prices will influence corn profitability for 2022.

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PLAINSMAN Page 12 - Wednesday, December 1, 2021

Table 5. Average reported value per acre of agricultural land by South Dakota region, county clusters, type of land and land productivity, February 2016 - 2021.

			Southeast		East Central				
Agricultural Land Type and Productivity	All	Clay Lincoln Turner Union	Bon Homme Hutchinson Yankton	Charles Mix Douglas	All	Minnehaha Moody	Brookings Lake McCook	Sanborn Davison Hanson Kingsbury Miner	
				dollars ¡	per acre				
Nonirrigated Cropland		ř			·			<u> </u>	
Average 2021	\$5,563	\$7,200	\$5,500	\$3,990	\$5,780	\$7,867	\$6,503	\$4,305	
High Productivity	\$6,931	\$9,365	\$6,354	\$4,778	\$7,195	\$10,695	\$8,820	\$5,581	
Low Productivity	\$4,391	\$4,900	\$4,237	\$4,172	\$4,350	\$5,117	\$5,001	\$3,969	
Average 2020 rate	\$5,388	\$6,793	\$5,237	\$3,800	\$5,433	\$7,337	\$5,973	\$4,152	
Average 2019 rate	\$5,648	\$7,120	\$4,974	\$3,750	\$5,400	\$7,500	\$6,500	\$4,343	
Average 2018 rate	\$6,361	\$7,490	\$5,359	\$3,900	\$6,237	\$7,575	\$6,165	\$5,148	
Average 2017 rate	\$5,570	\$6,700	\$5,427	\$4,425	\$6,160	\$7,265	\$6,715	\$5,156	
Average 2016 rate	\$5,653	\$6,684	\$5,089	\$4,563	\$6,116	\$8,262	\$6,119	\$4,788	
Pasture/Rangeland**									
Average 2021 rate	\$2,499	\$2,974	\$2,473	\$2,050	\$2,792	\$3,369	\$2,331	\$2,675	
High Productivity	\$3,098	\$3,800	\$2,895	\$2,600	\$3,767	\$4,150	\$3,750	\$3,400	
Low Productivity	\$1,791	\$2,220	\$1,803	\$1,350	\$2,030	\$2,560	\$1,730	\$1,800	
Average 2020 rate	\$2,440	\$2,876	\$2,469	\$2,043	\$2,680	\$3,333	\$2,320	\$2,670	
Average 2019 rate	\$2,518	\$2,933	\$2,500	\$2,050	\$3,159	\$3,583	\$2,500	\$3,071	
Average 2018 rate	\$2,829	\$3,250	\$2,470	\$2,100	\$2,624	\$3,313	\$2,318	\$2,318	
Average 2017 rate	\$2,450	\$2,688	\$2,471	\$2,175	\$2,546	\$2,960	\$2,400	\$2,518	
Average 2016 rate	\$2,566	\$2,567	\$2,573	\$2,550	\$2,781	\$3,253	\$2,506	\$2,667	



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SEE AGENTS. . .

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2021 Livestock Environmental Training for CAFOs Workshop

outh Dakota State University (SDSU) Ex-Otension will host a livestock environmental training program for concentrated animal feeding operations on Wednesday, Dec. 8, at 8:30 a.m. CST at the Crossroads Convention Center in Huron (100 Fourth St. S.W.).

This current training program meets the training requirement of the General Water Pollution Control Permit as long as it is attended within three years of obtaining coverage under the new permit. Manure applicators, producers and any other interested individuals who are not currently applying for a permit can also benefit from the information and are encouraged to attend. Certified Crop Advisor

Workshop planned Wednesday, Dec. 8, at Crossroads in Huron credits are available as well.

"Past attendees of this program have come away with at least one new practice they consider adopting related to land application, livestock feeding, air quality or soil conservation."

 Bob Thaler, Professor & SDSU Extension Swine Specialist

Speaker line-up & presentation details

- John McMaine, Assistant Professor and SDSU Extension Water Management Engineer will discuss water quality.
- Bob Thaler, Professor and SDSU Extension

WORKSHOP / Page 15

Table 5. (continued)

		Norti	neast					
Agricultural Land Type and Productivity	AII	Codington Deuel Hamlin	Grant Roberts	Clark Day Marshall	AII	Brown Spink	Edmund Faulk McPherson	Campbell Potter Walworth
				dollars	per acre			
Nonirrigated Cropland								
Average 2021 rate	\$4,740	\$5,150	\$4,701	\$4,369	\$3,719	\$5,011	\$2,975	\$3,170
High Productivity	\$6,104	\$6,500	\$6,213	\$5,600	\$4,790	\$7,350	\$3,700	\$3,320
Low Productivity	\$3,177	\$3,269	\$3,460	\$2,801	\$2,240	\$2,475	\$1,996	\$2,250
Average 2020 rate	\$4,597	\$5,133	\$4,633	\$4,218	\$3,370	\$4,575	\$2,670	\$3,216
Average 2019 rate	\$4,606	\$5,143	\$4,800	\$4,200	\$3,447	\$4,860	\$2,733	\$3,320
Average 2018 rate	\$4,546	\$4,862	\$4,458	\$4,470	\$3,534	\$4,273	\$3,235	\$3,314
Average 2017 rate	\$4,654	\$4,761	\$4,708	\$4,501	\$4,030	\$4,950	\$3,033	\$3,033
Average 2016 rate	\$4,613	\$4,673	\$4,969	\$4,300	\$4,177	\$4,983	\$3,604	\$3,273
Pasture/Rangeland**			0)		8			
Average 2021 rate	\$1,829	\$1,840	\$1,869	\$1,778	\$1,453	\$1,460	\$1,400	\$1,500
High Productivity	\$2,815	\$2,601	\$3,326	\$2,517	\$1,933	\$2,170	\$1,650	\$1,978
Low Productivity	\$1,373	\$1,394	\$1,356	\$1,369	\$1,104	\$1,209	\$900	\$1,203
Average 2020 rate	\$1,845	\$1,843	\$1,860	\$1,800	\$1,517	\$1,575	\$1,387	\$1,530
Average 2019 rate	\$1,877	\$1,886	\$1,900	\$1,878	\$1,463	\$1,560	\$1,389	\$1,500
Average 2018 rate	\$2,178	\$2,150	\$2,253	\$2,120	\$1,718	\$1,955	\$1,744	\$1,060
Average 2017 rate	\$2,089	\$2,241	\$2,080	\$1,911	\$1,914	\$2,519	\$1,450	\$1,383
Average 2016 rate	\$2,028	\$2,167	\$1,900	\$1,944	\$1,957	\$2,354	\$1,893	\$1,125



REAL ESTATE:

Pastureland, at \$1,060 per acre, was \$10 higher than the previous year.



From Page 8

Cash rents paid to landlords in 2021 for cropland were mixed from last year.

Irrigated cropland rent averaged \$196 per acre, \$3 below last year.

Dryland cropland rent averaged \$120 per acre, \$2 higher than a year earlier.

Pasture rented for cash averaged \$26.50 per acre, \$0.50 above the previous year.

County level averages of 2021 cash rents paid to landlords will be released on August 27, 2021 and will be available through NASS Quick Stats, located

at http://quickstats.nass.usda.gov/.
Access the National publication for this release at: https://usda.library.cornell.edu/concern/publications/pn89d656.

MANURE:

greater proportions of manure value, such as bed pack or slatted floor facilities, would show a similar pattern. Regardless of housing systems used, integrating livestock into a crop enterprise provides a competitive advantage through reducing input costs, especially during periods with high fertilizer costs.

If cattle feeders are going to capitalize on this resource, they need to make sure they do not treat manure, well... like manure.

Often manure is hauled to the closest fields to minimize disposal costs and make more "efficient" use of time.

However, taking a more strategic approach to manure application will increase

proximately 5%, while

average pasture val-

ues were down slightly

According to Davis,

there are a few key el-

ements driving chang-

es in farmland values.

These include cash

rent, working capital,

supply of land, interest

rates, inflation and sim-

have improved from

2020. Working capi-

tal was improved with

the increase in crop

prices and the influx of

government aid for di-

saster and virus relief.

There's no doubt the

increase in input prices

cash rents

capital

ilar investments.

and working

"First,

SURVEY:

to unchanged."

the value of manure as part of the overall system.

Test.

The only way to reliably determine manure composition and nutrient value is to test it. Manure is highly variable depending on amount of bedding, diets fed to the livestock, degree of N loss during storage, dry matter content of the manure and other factors.

Representative samples and accurate lab analysis will allow for more-precise application.

Prioritize target fields.

Fields should be chosen based on soil fertility test levels and prior field history. Applying manure is an effective way add back organic matter that had been removed, wheth-

From Page 11

er from silage harvest or crop residue removal.

Avoiding fields with an extensive history of manure application will place crop nutrients where they will be more effective and reduce any negative effects of prior over-application.

Reduce risk of loss.

Selecting fields with less risk of nutrient losses, whether from leaching in sandy soils or from runoff on steeper slopes, will keep crop nutrients where they can benefit crop reduction rather than moving to areas. Knifing in liquid manure or incorporating solid manure, when possible, reduces nutrient volatilization.

From Page 7

For more information on this report, please contact Davis at 605-995-7378 or Jack.Davis@sdstate.edu.

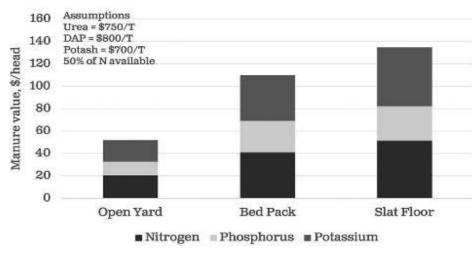


Figure 1. Crop nutrient value produced per head.

950 50 48 850 850 825 800 775 Urea, \$/Ton 750 800 850

Manure Value per Head - Open Yard

 $\equiv 44\text{-}46 \equiv 46\text{-}48 \equiv 48\text{-}50 \equiv 50\text{-}52 \equiv 52\text{-}54$ Assumes 50% of N is used by crops - Potash price = \$700/T, Year around occupancy

Figure 2. Effect of changing fertilizer prices on manure value per head in an open yard.

put pressure on profit margins for next year's crop," says Davis. "Second, the supply of land, interest rates, inflation and investment prospective are creating positive pressure

on land values."

in 2021 and 2022 will

Farmers, landowners, investors, lenders, real estate professionals and public officials provide the majority of the data compiled in the survey. While the values and rates in the report are regional, Davis says they should only be used as a guide and are not an indication of values for specific properties.

"Farming looks mighty easy when your plow is a pencil, and you're a thousand miles from the corn field."

— President Dwight D. Eisenhower





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WORKSHOP:

Swine Specialist will lead a session on livestock nutrition options for reducing nitrogen and phosphorus content of manure.

- Jason Roggow, a Natural Resources Engineer with the South Dakota Department of Environment and Natural Resources (DENR), will give an overview of the South Dakota DENR Livestock Permit program.
- · Anthony Bly, SDSU Extension Soils Field Specialist, will discuss managing nitrogen and phosphorus in land applications of manure.
- · Jason Gilb, Conservation Agronomist with the United States Department of Agriculture (USDA) Natural Resources Conservation Service will go through nutrient management planning worksheets.
- Kent Vlieger, Soil Health Specialist with the USDA Natural Resources Conservation

From Page 12

Service, will demonstrate soil erosion and infiltration.

 Xufei Yang, SDSU Extension Environmental Quality Engineer, will conclude the day's training with a session on air quality and odor.

Pre-registration is required by Dec. 7. To cover the cost of the event, registration is \$50 for the first person from a farm or operation and includes lunch, breaks and training materials. Additional participants from the farm/operation can register for \$50 to receive a binder or \$25 for attendance only without additional binders.

For more information contact Bob Thaler, SDSU Extension Swine Specialist at 605-688-5435 or John McMaine, SDSU **Extension Water Management** Engineer at 605-688-5610.

3 states could see increases in farm land values

Multiple buyers, low interest rates and crop prices really hadn't risen much. a short supply of property.

Sounds like a description of the housing market but it's not.

It's the expected farm land market in South Dakota, northwest Iowa and southwest Minnesota.

The 2020 farm values reported for each of those three states may not reflect a highly competitive market driving up land prices because, in part, there were factors lowering values, at least in South Dakota and southwest Minnesota.

Extension services in all three states release farm land value reports for 2020. Values declined in South Dakota and southwest Minnesota but increased in lowa.

"When we were taking our survey for 2020. Things were kind of negative," said Jack Davis, a crops business management field specialist for the South Dakota State University Extension. "Interest rates were kind of creeping up. And the

Margins were tight and working capital was (very) tight.

Iowa State University Extension released its report in December. South Dakota released its July and the University of Minnesota Extension released the southwest Minnesota report in February. All three reports are a snapshot in time. They include sale prices of farm land and may also include survey information from producers. The reports caution farm land owners from making comparisons to their own land.

The average value of a crop farm land in South Dakota was \$3,638 an acre in 2020, according to a report from the South Dakota State University Extension.

The average value in 14 counties of southwestern Minnesota was \$6,371, according to the University of Minnesota Extension. The region includes Nobles,

LAND VALUES / Page 16



LAND VALUES:

Rock, Pipestone, Lincoln and 10 other counties.

"There were some that went up last year even though they went down slightly," said David Bau an extension educator in Minnesota.

The average value of farm land in northwest lowa was \$9,536 per acre. The lowa value includes all qualities of crop land, according to the lowa State Extension.

But the factors influencing some lower values described by Davis changed during 2020 and into 2021.

Farmers made more money than expected in 2020 buoyed by increases in crop prices and government programs related to the coronavirus pandemic. And interest rates dropped.

After successive years of losing money on certain crops, farmers made money in 2020, Bau said

The U.S.D.A. projected that farm income would increase by \$24.7 billion in 2020 over 2019.

Increases in crop prices also helped drive up income.

For example, Bau said on April 6, the futures price for a bushel of soybeans was \$8.08 per bushel in April 2020. As of April 6, 2021, that price was \$12.78 per bushel.

Afuture price is one a farmer can lock in to sell a certain number of bushels of soybeans from his future crop.

"It's crazy how much of a difference a year made," Bau said of crop prices. In lowa, where an increase in farm land value was reported for 2020, the

positive impact of several factors was already noted. The ISUE report said "The recent modest increase in the lowa farmland market is a result of lower interest rates, substantial government payments, strong demand, and limited land supply."

Farm land is sold in acre amounts that could range from 60 acres to 160 acres to 500 or more. So, at \$3,000 acre for 160 acres, that's \$480,000. If the buyer pays \$6,000 an acre, that's \$960,000. If it's \$9,000 an acre, that's \$1.4 million.

When the principal and interest rate are added, a low interest rate on those selling prices makes a difference.

"Just like the housing market, with

From Page 15

low interest rates, houses will sell for a higher prices too. That's really the biggest factor for (farm) land values too," Davis said.

Realtors may tell of six or 10 offers on a home but farm land value reports don't indicate such numbers.

Bau and Davis said there is a demand for high quality farm land because there is not a large supply.

"The limited farm land supply helped buoy market prices in many areas across the state," the ISUE report said.

"It is amount of land that is totally available. If there is no reason to sell it and the rents are holding then people just kind of hang onto it. Then there is not much of a supply of good quality land for those that are interested in expanding," Davis said.

The supply helped hold land values in 2020 in South Dakota, Davis said. Early in the 2000s land values didn't drop as much as in the 1980s because there was not the supply for sale of good properties, Davis said.

"A farmer himself usually doesn't sell until they have to because of economics," Bau said.

Some farm land owners may choose to keep their land because they can receive a good rental price, Davis said. The farm continues to generate an income from the rent.

That land could be owned by a retired farmer or an investor.

Often, the farm land is up for sale when the heirs of a deceased farmer decided to sell it, Bau said.

Davis said a farmer may decide to sell a portion of his land to help with retirement.

"It tends to farmers who buy the majority," Davis said. "Most of that is bought for the expansion of the farm, or someone getting started, or bringing someone into it."

"That farm across the road from you comes up for sale tomorrow won't come for sale in your generation again," Bau said. "In your lifetime it comes for sale once in a generation. You're not gonna look back on that and say 'oh that's a bad decision to buy 'because that's the only chance (you) had."

