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Historic Analysis of Flooding and Excessive Moisture Across Nebraska and Implications for Agricultural Lease Arrangements in 2020

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Cornhusker Economics

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Market Report	Year Ago	4 Wks Ago	7-17-20
Livestock and Products, Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	112.40	*	*
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	173.66	170.11	158.87
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	151.70	140.89	145.57
Choice Boxed Beef, 600-750 lb. Carcass.	213.11	220.34	201.24
Western Corn Belt Base Hog Price Carcass, Negotiated	*	NA	*
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	76.40	63.99	68.04
Slaughter Lambs, wooled and shorn, 135-165 lb. National.	160.86	NA	105.16
National Carcass Lamb Cutout FOB.	405.55	415.16	NA
Crops, Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	3.89	3.92	3.98
Corn, No. 2, Yellow **Columbus**, bu.	4.23	3.01	2.94
Soybeans, No. 1, Yellow **Columbus,** bu.	8.02	8.11	8.23
Grain Sorghum, No.2, Yellow Dorchester, cwt.	6.46	6.21	6.21
Oats, No. 2, Heavy Minneapolis, Mn, bu.	3.06	3.33	3.36
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	172.75	172.75	*
Alfalfa, Large Rounds, Good Platte Valley, ton.	125.00 Delivered	*	*
Grass Hay, Large Rounds, Good Nebraska, ton.	100.00	75.00	*
Dried Distillers Grains, 10% Moisture Nebraska Average.	149.50	124.00	122.50
Wet Distillers Grains, 65-70% Moisture Nebraska Average.	43.25	40.09	39.86

*** No Market**

The Nebraska Farm Real Estate Market Survey and Report 2019-2020 provides insight on recent trends on the market value of agricultural land and cash rental rates 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 2020 evaluates historic flooding and excessive moisture over the prior decade across Nebraska and implications on accounting for this type of risk in agricultural lease arrangements.

In 2019 Nebraska experienced periods of excessive rain causing historic flooding issues for operators across the state. Many farmers experienced delays in field operations and were not able to plant the intended crops in a timely manner due to excessive moisture. Prevented plant acres represent the failure to plant the intended crop by the final planting date or late planting period specified by the Federal Crop Insurance Policy (USDA-RMA 2020). Coverage provided by the Federal Crop Insurance Policy offsets a portion of the financial loss from prevented plant on cropland. Reported prevented plant acres and intended crop over the prior decade in Table 1 documents the historic effects of excessive moisture and flooding across Nebraska (USDA-FSA 2020).

Nebraska reported an average of 81,130 acres of prevented plant cropland from 2010 to 2019. The top three crops for prevented plant in the state annually included corn, soybeans, and wheat at 62,449, 16,659, and 1,036 acres, respectively. Rainfall and flooding events in 2015 and 2019 attributed to the highest number of prevented plant cropland at 188,463 and 421,958 acres, respectively. Excluding these two years

Table 1. Prevented plant acres by year and intended crops for 2010-2019 in Nebraskaa

Crop Year	Prevented Plant Acres and Intended Crops					
	Corn	Sorghum	Soybeans	Wheat	Other	Total [b]
	Acres					
2010	21,221	1,235	10,061	6,128	49	38,693
2011	29,279	0	11,088	15	11	40,394
2012	3,890	0	2,286	0	0	6,177
2013	11,518	8	2,591	1,303	0	15,420
2014	9,895	6	1,654	720	0	12,275
2015	129,179	3,881	54,996	128	279	188,463
2016	38,922	19	4,934	73	5	43,953
2017	17,222	0	1,696	0	0	18,918
2018	18,956	361	5,325	406	0	25,048
2019	344,407	3,250	71,958	1,584	760	421,958
Avg. 2010 - 2019	***62,449***	***876***	***16,659***	***1,036***	***110***	***81,130***

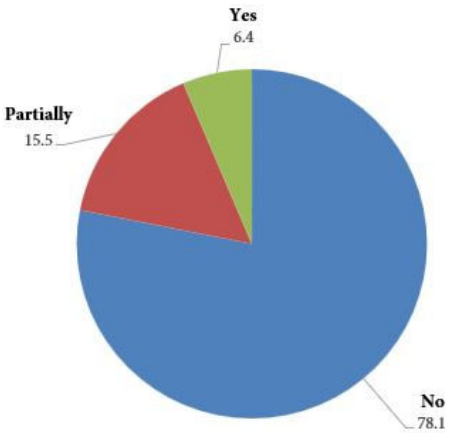
Source: [a] Crop Acreage Data Reported to USDA-Farm Service Agency, 2010-2019.
[b] Difference between the total and sum of individual rows due to rounding.

from the prior decade drops the annual average to approximately 25,110 acres of prevented plant. Prevented plant may be a small risk to account for in cash lease arrangement annually, but periods may exist where excessive moisture can cause a significant disruption in production activities.

According to the 2017 Census of Agriculture, Nebraska has approximately 22 million acres of dryland and irrigated cropland (USDA-NASS 2019). Dividing the annual prevented plant acres by total cropland indicates that less than 1% of the land base typically experiences water-related issues. With the low probability of prevented plant in Nebraska, many land leases may focus on other forms of contractual risk. Figure 1 summarizes whether agricultural land lease arrangements contained mitigation provisions to address damages from flooding or excessive moisture in 2019 across the state.

According to responses reported by panel members, 78.1% of agricultural land leases in 2019 did not contain provisions to account for damages from flooding or excessive moisture. About 15.5% of the leases partially accounted for this type of risk while approximately 6.4% of the leases fully contained mitigation provisions. Failure to account for for flooding or excessive moisture leaves uncertainty in addressing property damages and limitations imposed on the land.

Figure 1. Land industry professional response on whether 2019 land leases contained provisions to account for damages from flooding or excessive moisture in Nebraska



Source: UNL Nebraska Farm Real Estate Market Survey, 2020.

With over 421,000 acres of prevented plant cropland in Nebraska in 2019, many cropland leases did not have adequate lease provisions to address the issues arising from the disruption to the production cycles. Table 2 summarizes responses from panel members on adjustments made to the cash rent for cropland if the property experienced extensive prevented plant during 2019.

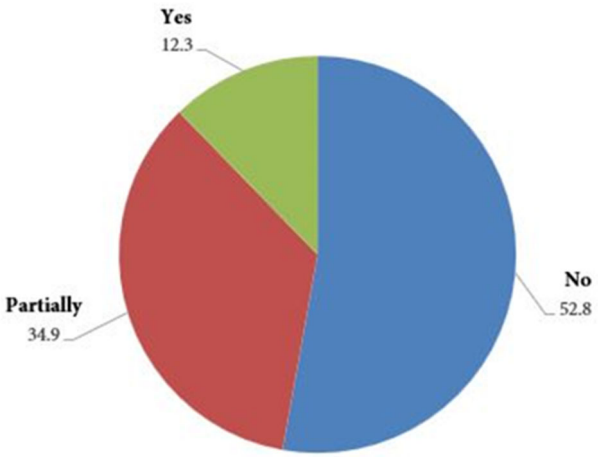
Table 2. Adjustments made to cash rent on cropland having extensive prevented plant for 2019 in Nebraska

Adjustment to Cash Rent	*Response Rate*
	- - - - - - Percent - - - - - -
No Adjustments	36.4
Reduced Rent	39.1
No Rent	10.3
Other	14.2

Source: UNL Nebraska Farm Real Estate Market Survey, 2020.

Panel members reported approximately 36.4% of cropland leases had no adjustment made to the cash rent when extensive prevented plant occurred on the property. About 39.1% of cropland leases reported reduced rent due to excessive moisture or flooding. The remaining 24.5% of leases either did not have any rent paid or some other alternative agreement added to the lease. Operators may have traded remediation work to damages on properties to partially offset a portion of the cash rent due.

Figure 2. Land industry professionals' responses on whether 2020 lease provisions were added or revised to account for flooding or excessive moisture in Nebraska



Source: UNL Nebraska Farm Real Estate Market Survey, 2020.

As shown in Figure 2, panel members indicated 12.3% of cropland lease provisions were either added or revised to account for risk from flooding or excessive moisture. In addition, 34.9% reported a partial revise to contractual provisions. Over half of the cropland leases did not receive any additional or revised lease terms.

Noticeable changes were reported by panel members in cropland lease provisions to better account for flooding and excessive moisture risk between 2019 and 2020 (Figures 1 and 2). Addressing risk and uncertainty as part of the lease arrangement improves the equitability of the contract for each party involved. Financial risk remains high for landowners and operators. Employing appropriate management strategies to account for risk remains an important feature for designing lease terms and provisions.

Survey results shown and discussed in this report are findings from the University of Nebraska–Lincoln 2020 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 the 2020 Nebraska Farm Real Estate Report to Jim Jansen at (402) 261-7572 or jjansen4@unl.edu.

References

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