



## BLUESTEM PASTURE RELEASE 2021

## KANSAS STATE Agricultural Economics

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The 2021 results on bluestem pasture leases utilize the responses from the 2021 Kansas Bluestem Pasture Survey conducted from January through March of 2021 over the 14 Bluestem counties. The format of the 2019 and 2021 Bluestem surveys is different from previous surveys. The survey changes were in response to past requests to change the question format to better reflect native tallgrass prairie use and leasing practices. The new survey instrument incorporated suggestions from a focus group of report users that included landowners, livestock owners, livestock care providers, and Flint Hills extension agents. Because of the format change, discussion on leasing rates are not directly comparable to years prior to 2019. Please refer to previous Bluestem releases for historical leasing rates.

The 14 Bluestem counties surveyed include: Geary, Pottawatomie, Wabaunsee, Chase, Lyon, Morris, Marion, Butler, Chautauqua, Cowley, Elk, Coffey, Greenwood, and Woodson. Lease types discussed include short summer season leases,  $\frac{3}{4}$  summer season leases, full summer season leases, winter grazing leases, and full year leases. The grazing period of short summer season leases lasts about 90 days; a  $\frac{3}{4}$  summer season contract has a grazing period of about 120 days; and the grazing season is typically around 180 days for a full summer season lease. About 39% of the respondents to the survey are landowners; 29% of the respondents are livestock owners; 14% of the respondents are livestock care providers, and 18% of the respondents are land managers.

In 2021, the condition of bluestem pasture in the Flint Hills region of Kansas was rated as 1.4 percent very poor, 10.5 percent poor, 35.6 percent adequate, 40.1 percent good, and 12.3 percent excellent. In 2019, the condition of Bluestem pasture in the Flint Hills region of Kansas was rated as 1.7 percent very poor, 6.7 percent poor, 20.3 percent adequate, 50.1 percent good, and 21.2 percent excellent. The 2021 results indicate that the Bluestem counties received adequate rainfall. However, responses indicate that pasture conditions in 2021 are not as good as they were in 2019, which were worse than the conditions in 2017.

Responses to the sources of **water** being used for livestock on bluestem pasture were distributed in the following manner: ponds, 46.5 percent; streams or spring-fed or spring development, 25.0 percent; solar powered, 6.9 percent; wells, 6.5 percent; windmill, 5.8 percent; rural water, 5.4 percent; electric-powered wells, 1.9 percent; and hauling, 1.9 percent. The distribution of water sources in 2021 was similar to the distribution in 2019. Ponds remained the top water source, up 3.2% from 2019. Streams or spring-fed as the second main source decreased by 1.5% from 2019. Hauling as the supply source increased from 0.9 percent in 2019 to 1.9 percent in 2021. Kansas stock water supplies are no longer reported, as of 2018, by USDA.

About 80 percent of the respondents reported **burning** their tallgrass pastures. Most of the burning took place between April 1<sup>st</sup> and April 15<sup>th</sup>. Ninety-six percent of **available pasture** was **reported to be under contract** in the 2020-2021 season. By lease type, 19.4 percent of the respondents had short summer leases; 17.3 percent had full year leases, and 49.5 percent had full summer season leases. Only 6.6 percent and 7.1 percent had  $\frac{3}{4}$  summer season and winter grazing leases, respectively. Of the **acres** that respondents had contracted, 37.9 percent were under full summer season contracts; 39.8 percent were under short summer season contract for early intensive grazing; 5.5 percent were under  $\frac{3}{4}$  summer

season contracts; 12.2 percent were leased for the full year; and 4.6 percent for winter grazing. The average number of acres leased ranged from 756 for winter grazing leases to 2421 acres for short summer season leases. The number of acres for full summer season leases averaged 901 in 2021.

The **start date** of the grazing season for most of the full summer season contracts was May 1, and the mode ending date was October 31. The mode starting date for short summer season or intensive grazing was also May 1, and the mode ending date was August 1. Most of ¾ summer season contracts start May 1 and end around September 1. Winter grazing leases often start around October 15 or November 1 and last for about six months.

The term “with care” has a wide range of meanings across leases in the 14 Bluestem counties. Therefore, the new survey format attempted to address that issue. The 2021 survey format allowed respondents to select from 12 specific and one “other” category of care services that may be included in the lease rate. The care services and related response percentages are shown in the following table.

**Care Services Percentage of Total Respondents by Lease Types**

	Percentage of Care (%)						
	600-Pound Steer/Heifer				1250-Pound Cow/Calf		
	Full Summer Season	Short Summer Season	3/4 Summer Season	Full Year	Full Summer Season	Short Summer Season	Full Year
Burning	61.11	100.00	75.00	66.67	80.95	75.00	100.00
Doctoring	61.11	100.00	100.00	83.33	66.67	75.00	66.67
Providing Medicine	22.22	25.00	50.00	16.67	33.33	25.00	33.33
Fence Maintenance	88.89	100.00	100.00	83.33	90.48	75.00	66.67
Grass Management	77.78	91.67	100.00	83.33	80.95	75.00	83.33
Providing Herbicide	66.67	50.00	75.00	16.67	57.14	25.00	33.33
Herbicide Application	55.56	50.00	75.00	33.33	66.67	50.00	50.00
Liability Insurance coverage	38.89	58.33	50.00	66.67	33.33	25.00	66.67
Distributing Salt & Mineral	66.67	100.00	100.00	83.33	76.19	75.00	100.00
Providing Salt & Mineral	16.67	8.33	-	33.33	23.81	25.00	33.33
Guaranteed Count	33.33	33.33	50.00	66.67	33.33	25.00	50.00
Riding/Checking Cattle	61.11	100.00	100.00	100.00	80.95	75.00	100.00
Other	-	16.67	25.00	-	-	-	16.67

- No Response.

**Fence** maintenance was provided by most of the respondents when care was provided. **Fence** maintenance was included in 89 percent of all 600-pound steer/heifer **full summer** season leases with care. Services provided by the landlord or caretaker in **600**-pound steer/heifer full summer season leasing arrangements were: grass management including weed & tree control, 78 percent; providing herbicide and distributing salt & mineral, 67 percent respectively; fence maintenance, doctoring, and riding/checking cattle, 61 percent; Herbicide application, 56 percent; liability insurance coverage, 39 percent; guaranteed count, 33 percent; providing medicine, 22 percent; and providing salt & mineral, 17 percent. About 90 percent of all **1250**-pound cow-calf **full summer** leases with care included fence maintenance. Burning, grass management, and riding/checking cattle were included in 81 percent of 1250-pound full summer leases, followed by distributing salt & mineral, doctoring, and herbicide application.

**Burning**, doctoring, fence maintenance, distributing salt and mineral, and riding/checking cattle were the services that were provided most often by the landlord or caretaker in **short summer** season leasing arrangements, 100 percent for **600**-pound steer/heifer leases and 75 percent for **1250**-pound cow/calf leases.

Other services included in **600**-pound steer/heifer leases were: grass management, 92 percent; liability insurance coverage, 58 percent; providing herbicide and herbicide application, 50 percent; guaranteed count, 33 percent; providing medicine, 25 percent; providing salt & mineral, 8 percent; and other miscellaneous services, 17 percent. Regarding **1250**-pound cow/calf short summer leases, herbicide application was included in 50 percent of all leases and all other types of care services were included in 25 percent of all leases.

All **600**-pound steer/heifer  $\frac{3}{4}$  **summer** lease responses with care arrangements included doctoring, fence maintenance, grass management, distributing salt and mineral, and riding/checking cattle services. Providing salt & mineral was not included in any of the  $\frac{3}{4}$  summer season leases with care. Seventy-five percent of those lease respondents indicated services that included burning, providing herbicide, and herbicide application. Fifty percent provided liability insurance coverage, providing medicine and guaranteed count.

**Riding/checking cattle** was provided in all **full year** contracts. Other services included in **600**-pound steer/heifer leases were: doctoring, fence maintenance, grass management, and distributing salt and mineral, 83 percent; doctoring, 58 percent; burning, liability insurance coverage, and guaranteed count, 67 percent; herbicide application and providing salt & mineral, 33 percent; and providing medicine and providing herbicide, 17 percent. All **1250**-pound cow/calf full year leasing arrangements included burning and distributing salt and mineral services. Grass management was included in 83 percent of all leases. Sixty-seven percent of those lease respondents reported services including doctoring, fence management, and liability insurance coverage. Fifty percent provided herbicide application and guaranteed count. Providing medicine, providing herbicide, and providing salt & mineral were included in 33 percent of all leases.

The number of years a tallgrass lease has been in place varies. About 52 percent of the tallgrass native pasture leases have been in place for 10 or less years. Sixty percent of the leases have been in place for only 1 year. About 31 percent of the leases have been in place for 20 or more years. As in 2019, about 52 percent of bluestem pasture leases were written, and 48 percent of the leases were oral in 2021.

The average lease rates for the various care services are shown in the following tables. To be included in the average, the lease rates had to be associated with the exact same care services. In these tables, B represents burning, and D represents doctoring. M indicates that the care giver administers medicine. F and L indicate that the care provider maintains the fence and an insurance liability policy, respectively. G represents grass management, providing herbicide, and applying herbicide. Sd and Sp indicate that the care provider distributes salt and provides salt, respectively. Finally, C indicates a guaranteed count, and R represents riding the cattle.

<b>Care Services Average Lease Rates by Lease Types</b>				
Care Services	Average Full Summer Lease Rates			
	600 lb.		1250 lb.	
	\$/head	\$/acre	\$/head	\$/acre
DMFGLSdSpR	-	20	-	-
BDFGLSdCR	-	-	325	40
BDFGLSdR	-	60	-	-
BDFGSdCR	-	40	-	-
DFGLSdCR	-	32	-	-
BDFGSdR	-	-	269	36
BDFGSd	-	42	-	-
BFGSdR	130	-	-	-
BFGSd	180	-	-	-
BFGL	150	31.5	-	-
BFG	-	-	-	33
G	144	36	-	-

**Care Services Average Lease Rates by Lease Types**

Care Services	Short Summer Average Lease Rates			
	600 lb.		1250 lb.	
	\$/head	\$/acre	\$/head	\$/acre
BDMFGLSdSpR	90	-	-	-
BDMFGLSdCR	96	-	-	-
BDFGLSdR	105	-	-	-
BDFGSdR	90	40	-	-
B	-	-	90	-

- No Response.

For a **base animal** of 600 pounds, **5.4 acres were allowed** in a full summer season lease. The average number of acres allowed for a typical 600 pound animal was 3.0 acres in a short summer season contract. In a  $\frac{3}{4}$  summer season lease, 3.8 acres were allowed. An average of 6.5 acres was allowed in a full year lease. In a winter grazing lease, 4.9 acres were allowed for a 600-pound animal.

For a full summer season contract, the average tallgrass native pasture **lease rate** for a 600-pound **steer/heifer** was reported to be \$144.80 per head where care is provided and \$118.60 per head where care is not provided. The average lease rate for this 600-pound steer/heifer in a short summer lease was \$93.39/head where care is provided and \$85.50/head when care is not provided. The lease rate for a  $\frac{3}{4}$  summer lease averaged \$120.67/head with care and \$119.67/head without care. All these rates were higher than the rates in 2019.

The average **price per acre** for a 600-pound **steer/heifer** in a full summer season contract was \$35.11 where care is provided and \$28.44 where care is not provided. In a short summer lease, the average rate was \$39.33 per acre where care is provided and \$30.47 per acre where care is not provided. For a  $\frac{3}{4}$  summer season contract, price per acre with care wasn't reported, and the price per acre without care averaged \$28.00. The rate for a full year lease averaged \$29.00/acre where care is provided and \$20.96/acre where care is not provided. The average lease rate per acre for winter grazing without care was \$14.40. The lease rates were higher in 2021 than corresponding rates in 2019, except for the full year contract rate without care.

For a **base pair, defined** as a spring calving cow of 1250 lbs with her calf, **7.9 acres were allowed** in a full summer season lease. Acres allowed for a typical 1250-pound cow/calf pair was 5.2 acres in a short summer season contract. In a  $\frac{3}{4}$  summer season lease, 5.7 acres were allowed. An average of 8.3 acres was allowed in a full year lease. In a winter grazing lease, 6.0 acres were allowed for a 1250-pound pair.

For a full summer season contract, the average **price per head** for a 1250-pound **cow/calf** pair was \$267.40 per pair where care is provided and \$192.87 per pair where care is not provided. If care is not provided, the average lease price for 1250-pound cow/calf pair in a short summer season contract was reported to be \$123.67 per head. The 2021 average lease rates were higher than the 2019 rates.

For a 1250-pound **cow/calf** pair, the average lease **price per acre** in a full summer contract averaged \$27.90 per acre where care is provided and \$27.15 where care is not provided. For a full year lease, the average lease price was \$22.65/acre where care is not provided. The average per acre lease rate for a 1250-pound cow/calf pair in a short summer contract without care was \$28.17 per acre.

In the bluestem region, combined steel & wood posts were the most common posts for **fences**. About 60 percent of fences used steel & wood posts, and 40 percent used all steel posts. Treated wood and hedge posts were not reported. The average rate charged for building a five-wire fence with steel and wood posts was relatively less expensive than in 2019. If material is included, the rate was \$11,944 per mile (\$37.32 per rod), and the rate was \$5,650 per mile (\$17.66 per rod) without materials. The rate charged for building a five-wire all steel post fence, including materials, averaged \$12,818 per mile (\$40.06 per rod). The rate, excluding materials, averaged \$5,800 per mile (\$18.13 per rod). Additional charges for gates and corners averaged \$138.75 and \$221.38, respectively. The additional charge for building in rough or rocky terrain was \$82.50 per hour.

**Characteristics of Reported Bluestem Leases by Lease Types**

Lease Type	Percent of Respondents (%)	Percent of Total Reported Acres (%)	Average Size (Acres)	Range (Acres)
Short Summer Season	19.39	39.85	2421	75 - 12,000
¾ Summer Season	6.63	5.51	978	80 - 5,000
Full Summer Season	49.49	37.87	901	15 - 7,000
Full Year	17.35	12.19	828	56 - 6,000
Winter Grazing	7.14	4.58	756	20 - 4,000

**Average Bluestem Pasture Lease Rates per Head (\$/Head): 600-Pound Steer/Heifer**

Lease Type	Average Lease Price per Head (\$/Head)				Acres Allowed (Acres)
	Without Care		With Care		
	Average	Range	Average	Range	
Short Summer Season	85.50	55 - 100	93.39	90 - 105	3.0
¾ Summer Season	119.67	101 - 130	120.67	100 - 132	3.8
Full Summer Season	118.60	70 - 210	144.80	120 - 180	5.4
Full Year	1/	1/	1/	1/	6.5
Winter Grazing	1/	1/	-	-	4.9

- No Response.  
1/ Insufficient reports to publish.

**Average Bluestem Pasture Lease Rates per Acre (\$/Acre): 600-Pound Steer/Heifer**

Lease Type	Average Lease Price per Acre (\$/Acre)			
	Without Care		With Care	
	Average	Range	Average	Range
Short Summer Season	30.47	15 - 70	38.33	30 - 45
¾ Summer Season	28.00	26 - 30	-	-
Full Summer Season	28.44	18 - 70	35.11	20 - 60
Full Year	20.96	11- 35	29.00	15 - 42
Winter Grazing	14.40	5 - 30	1/	1/

- No response.  
1/ Insufficient reports to publish.

**Average Bluestem Pasture Lease Rates per Head (\$/Head): 1250-Pound Cow/Calf**

Lease Type	Average Lease Price per Head (\$/Head)				Acres Allowed (Acres)
	Without Care		With Care		
	Average	Range	Average	Range	
Short Summer Season	123.67	80 - 200	1/	1/	5.2
¾ Summer Season	1/	1/	-	-	5.7
Full Summer Season	192.87	120 - 350	267.40	125 - 400	7.9
Full Year	1/	1/	1/	1/	8.3
Winter Grazing	1/	1/	-	-	6.0

- No Response.

1/ Insufficient reports to publish.

**Average Bluestem Pasture Lease Rates per Acre (\$/Acre): 1250-Pound Cow/Calf**

Lease Type	Average Lease Price per Acre (\$/Acre)			
	Without Care		With Care	
	Average	Range	Average	Range
Short Summer Season	28.17	15 - 42	-	-
¾ Summer Season	1/	1/	-	-
Full Summer Season	27.15	16 - 70	27.90	12 - 40
Full Year	22.65	12.5 - 35	1/	1/
Winter Grazing	17.75	6 - 30	1/	1/

- No Response.

1/ Insufficient reports to publish.

**Bluestem Pasture Custom Fence Building Rates in Miles, by Post Types**

Post Type	5 Wire Including Materials (\$/Mile)		5 Wire Excluding Materials (\$/Mile)	
	Average	Range	Average	Range
	Steel Post Only	12,818	9,920 – 21,120	5800
Steel & Wood Posts	11,944	6,000 – 21,120	5650	5,000 – 7,040
Combined Rate	13,314	6,000 – 21,120	5714	5,000 – 7,040

**Bluestem Pasture Custom Fence Building Rates in Rods, by Post Types**

Post Type	5 Wire Including Materials (\$/Rod)		5 Wire Excluding Materials (\$/Rod)	
	Average	Range	Average	Range
	Steel Post Only	40.06	31.00 – 66.00	18.13
Steel & Wood Posts	37.32	18.75 – 66.00	17.66	15.63 – 22.00
Combined Rate	41.61	18.75 – 66.00	17.86	15.63 – 22.00

### Bluestem Pasture Custom Fence Building Charges for Gates

Gate Type	Additional Charge for Gates (\$/Gate)		Number of Gates	
	Average	Range	Average	Range
Steel Gates	171.18	100 - 350	2.00	1 - 4
Wire Gates	60.00	10 - 150	1.71	1 - 3
Combined Rate	138.75	10-350	1.91	1 - 4

### Additional Charges for Bluestem Pasture Custom Fence Building

Additional Charges	Average	Range
Additional Charge for Corners (\$)	221.38	42 - 525
Average Hourly Rate for Rough or Rocky Terrain (\$/hour)	82.50	20 - 120

**Kansas Bluestem Pasture - 14 County Area**

