Appendix L. Response to management by Chestnut-collared Longspur.

Responses to management type, i.e., cattle grazing, unless otherwise noted, fire, and mowing/haying, by Chestnut-collared Longspur breeding in the grasslands of the Northern Great Plains.

Management Type	Response to Management ^a	Region	Grassland Type	Reference
Grazing	Transferrence		2,500	
Heavy	+	AB	Mixed-grass	Owens and Myres (1973)
Season long	+	112	William grass	Ranellucci (2010),
Season long	'			Ranellucci et al. (2012)
Twice-over	_			Ranchacer et al. (2012)
rotation				
Light/Moderate	+	CO	Shortgrass	Giezentanner (1970)
Summer grazing			Shortgrass	Giezentalmer (1970)
Heavy	0			Ryder (1980)
Rest-rotation	0	MT	Mixed-grass	Golding and Dreitz (2017)
1000 Totalion	· ·	1111	William grass	Gording and Bronz (2017)
Season-long	0			
Grazing and	<u> </u>	ND		Kantrud (1981)
Mowing:		1.2		12411144 (1901)
1 year post	_			
haying				
Moderate/heavy	+ (max)			
grazing				
Light grazing	-			
Grazing and Fire:				Madden et al. (1999)
Burned 4 times	+			,
in 15 yrs				
Graze: Season	-			
long				
Ungrazed (long	-			
term)				
Heavy/Extreme	+			Salo et al. (2004)
Light/Moderate	-			
Grazing and Fire:		SK		White (2009)
1 yr post burn	+			
Unburned,	-			
Ungrazed				
Burned, Grazed	S			
	~			
Burned,	S			
Ungrazed				
	~			
Unburned,	S			
Grazed				P: 1 (2010)
2-3 yrs	+			Pipher et al. (2016)
\ 1.E				
>15 yrs	-			Climin 1: (2011)
Grazing:	C			Sliwinski (2011)
Cattle/Bison	S			
grazing				
Madageta	+			
Moderate				Luch (2000) District (2000)
Grazed	+ (3x greater)			Lusk (2009), Bleho (2009)
Unavazad				
Ungrazed	-			

Management Type	Response to Management ^a	Region	Grassland Type	Reference
Grazing and Fire:	Training of the same of the sa	SK	Mixed-grass	Richardson et al. (2014)
Grazing	+			
Burn (1-4 yrs	+			
post burn)				
Burned, Grazed	-			
Burned,	-			
Ungrazed				
Mowing/Haying		NID.	3.6. 1	W + 1/1001)
Grazing and		ND	Mixed-grass	Kantrud (1981)
Mowing:				
1 year post	-			
haying				
Moderate/heavy	+ (max)			
grazing				
Light grazing				
Light grazing Fire	-			
Grazing and Fire:		ND	Mixed-grass	Madden et al. (1999)
Burned 4 times	+	ND	Wiiked grass	iviadden et al. (1999)
in 15 yrs	·			
Graze:				
Season long	-			
T. 1				
Ungrazed	-			
(long term)	+ short term	SD		Huber and Stouter (1984)
Spring 1 yr post burn	+ Short term	SK		Maher (1973)
1 yr post burn	_	SIX		wianci (17/3)
2 yrs post burn	+ (abundance			
	equal to			
	ungrazed)			
Grazing and Fire:				Richardson et al. (2014)
Grazing	+			
Burn (1-4 yrs	+			
post burn)				
Burned, Grazed	-			
Dues o d				
Burned, Ungrazed	-			
Oligiazeu	<u> </u>	<u> </u>	L	

^a = Grazing effects on abundance: + increase, - decrease, 0 = no effect, S = similar, as reported by authors. Effects refer to abundance, unless otherwise noted above.