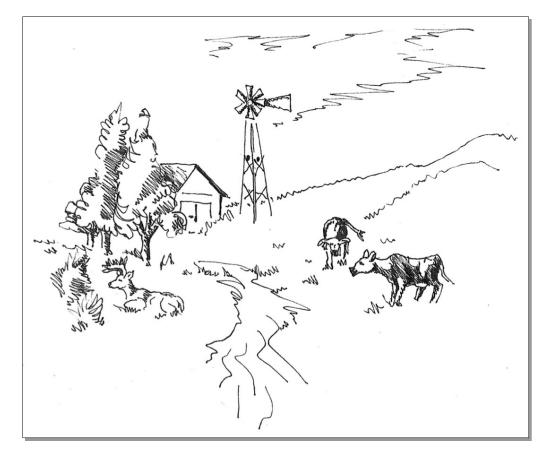
Your Perspective on your land in the Northern Great Plains



A Survey For:



Northern Great Plains Research Lab: Mandan, ND **Conducted By:**



USDA Confidentiality Statement:

The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions for Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, any ARS employee as well as every agent such as contractors and authorized researchers is subject to a jail term of up to 5 years, a fine of up to \$250,000, or both if he or she discloses ANY identifiable information about you.

Your response is voluntary and is estimated to take 15 minutes.

ID#INTRODUCTION

The grasslands and rangelands of North Dakota are a natural resource used by a wide variety of landowners. Producers, wildlife enthusiasts, and rural residents all share this resource and may have different opinions about land use.

To better understand and address current issues in the Northern Great Plains, we'd like to ask you about your opinions and experiences in this area. Specifically, we want to know:

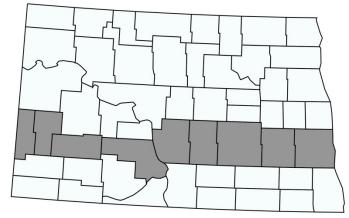
- your unique perspective about the land you own,
- your perceptions of vegetation changes on the landscape, and
- your use of land management practices.

Some sections of the survey ask about **RANGELANDS**. By **RANGELAND** we mean natural land with native prairie grasses that has never been broken out into crop land or re-seeded/planted with other species.

We will also use the term **PLACE** throughout the survey. Your **PLACE** is all of the rural land you own outside of any city limits. If you own multiple rural properties in the counties listed below, please consider them all together in terms of one overall **PLACE**:

STUDY AREA:

- Barnes County
- Billings County
- Burleigh County
- Cass County
- Golden Valley County
- Kidder County
- Morton County
- Stark County
- Stutsman County



The nine North Dakota counties included in this study.

Your response will be a great help!

BEGIN SURVEY →

SECTION A: FIRST, WE INVITE YOU TO TELL US A BIT ABOUT YOU AND YOUR PLACE

1. Who makes most of the day-to-day decisions about your land?

□ Just me or Me and my spouse

• Me and others (family members, business partners, land managers, leasee,

etc.)

Only others (family members, business partners, land managers, leasee, etc.)

2.In a typical week, about how many hours do you spend managing, operating, or working on your place?

___ hours

3. We'd like to understand how you use your land. Please indicate how important each of the following land uses are to you.

and uses listed shows how do you primarily us	VAUE	land?	lk
-or a livestock operation			
-or a crop production operation			
-or an integrated crop and livestock operation			
or a commercial hunting enterprise (game ranch, private hunting leases, etc.)			
-or commercial agrotourism or ecotourism			
-or wildlife management and/or conservation (non-commercial)			
or personal outdoor recreation or to enjoy the rural lifestyle (non-commercial)			
For an investment in land/real estate			
Please use space below if we missed something important:			
Other:			
Write in only one:			

6. Did you inherit or acquire any of your land from your family? Yes No

7.Do you live on your place full-time?

- Yes
- \Box No \rightarrow How many miles, one way, is your closest parcel of property from your primary residence?

_____ miles

8.We'd like to learn more about how you think about your place. Please tell us the extent to which the items below describe your beliefs.

My place I rely on my place		Man bellen		
to operate as a business	🗖			9.W
to provide habitat for wildlife				е
to make a profit				
to grow crops	🗖			
for the rangeland where I graze livestock				
is somewhere I feel more like a caretaker than an owner				
is where I do the kind of work I love would like to know how farming and life. Please indicate to what extent e	ranchi			ır
			Ŷ.	
I am a farmer	🗖			
I am a rancher				10. La
A lot of my life is organized around farming/ranching				
Farming/ranching is an important part of who I am	_			
ndowners and producers often have decisions about their land. To what your approach to land management	differe degree			ibe

When making land management decisions, I focus on doing what				
has traditionally been done				
will provide the best outcomes in the short-term				
others think I should do				
I think is morally right	. 🗖	7		
improves conditions for future generations				
people I respect are doing	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	j þ		
will give me the biggest return on my investment				
other landowners around me are doing		/		
is best for the health of the land				
maintains or enhances my reputation				
will provide the best long-term outcomes				
is appropriate for someone like me to do in the situation				
minimizes risk				
requires the least labor	D			
requires the least financial inputs				

11. In a typical year, do you use the following management practices on your rangelands?

	Yes	No
Intensive livestock grazing in early spring (e.g., April & May)		
Prescribed fire (i.e., burning rangelands)		
Targeted application of chemical herbicides		
Mob grazing (i.e., ultra-high animal density for short durations)		
Multi-species grazing (e.g., sheep, goats, cattle, etc.)		
Season-long grazing (e.g., May/June to October)		

12.	Do you use an integrated crop and livestock system?
	0
	es > Please specify:
	Practice(s)
	Crop(s)
	Animal(s)

13. Do you practice mob grazing? By mob grazing, we mean ultrahigh density animal stocking for short durations.

🛛 No

$s \rightarrow$ Please specify yo	our:	
Stocking rate:	_ (<i>head/acre</i>) or	(lbs/acre)
Number of daily move	PS:	
Grazing period (montl	ns):	

14. About how many head of livestock do you typically run on your place?

Cattle (Cow-calf):	pairs
Cattle (Yearlings):	head
Cattle (Bulls):	head
Horses:	head
Other livestock:	head

SECTION C: YOUR OPINIONS ON A NEW GRASS SPECIES

We'd like to understand the factors that influence your evaluation of a new grass species in rangelands. The following scenarios each present a description of a grass species that has different key characteristics once it becomes established. Please consider each description independently and indicate A) how acceptable or unacceptable the grass species is, and B) how you would manage the grass on your land.

15. Description of Grass 1:

A new grass species is expanding onto your native rangelands. Based on current research and the best available information from other landowners, you know that once established this grass:

- Leads to a moderate decrease (loss of 3-5 species) in the variety of grassland birds.
- Doesn't change the amount of floral resources that provide pollen and nectar for pollinator species.
- **Moderately decreases (20% less)** water infiltration into the soil and the amount of water available to other plants.
- Provides **average (in terms of crude protein)** quality forage for livestock during the primary growing period of this species.
- Provides palatable forage for livestock only late in the grazing season (September, October, November).
- Moderately decreases (loss of 20%) the diversity of other grasses.
- Produces a higher than average (25% more) yield in terms of lbs/acre.
- A. From your point of view, how acceptable or unacceptable is this species on your rangelands?

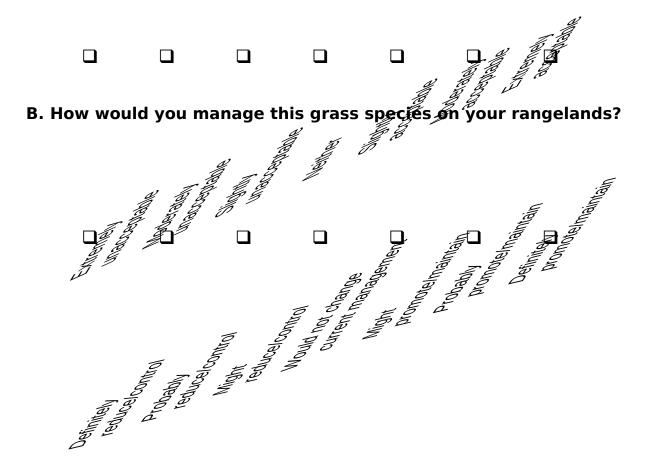
B. How would you manage this grass species on your rangelands?

Description of Grass 2 16.

A new grass species is expanding onto your native rangelands. Based on current research and the best available information from other landowners, you know that once established this grass:

- **Doesn't change** the variety of grassland birds.
- **Doesn't change** the amount of floral resources that provide pollen and nectar for pollinator species.
- **Moderately increases (20% more)** water infiltration into the soil and the amount of water available to other plants.
- Provides **higher than average (25% more crude protein)** quality forage for livestock during the primary growing period of this species.

- Provides palatable forage for livestock only early in the grazing season (April & May).
- Greatly decreases (loss of 50% or more) the diversity of other grasses.
- Produces **an average** yield in terms of lbs/acre.
- A. From your point of view, how acceptable or unacceptable is this species on your rangelands?

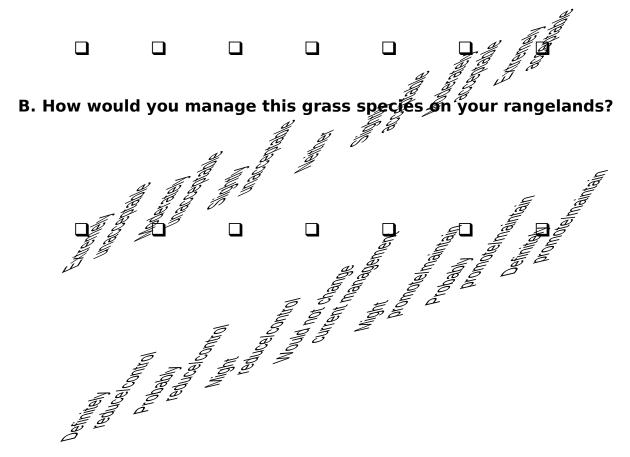


17. Description of Grass 3:

A new grass species is expanding onto your native rangelands. Based on current research and the best available information from other landowners, you know that once established this grass:

- **Doesn't change** the variety of grassland birds.
- Leads to a moderate decrease (loss of 15%) in the amount of floral resources that provide pollen and nectar for pollinator species.
- **Doesn't change** water infiltration into the soil and the amount of water available to other plants.

- Provides **higher than average (25% more crude protein)** quality forage for livestock during the primary growing period of this species.
- Provides palatable forage for livestock only during the summer grazing season (June, July, August).
- Has no effect on the diversity of other grasses.
- Produces a lower than average (25% less) yield in terms of lbs/acre.
- A. From your point of view, how acceptable or unacceptable is this species on your rangelands?

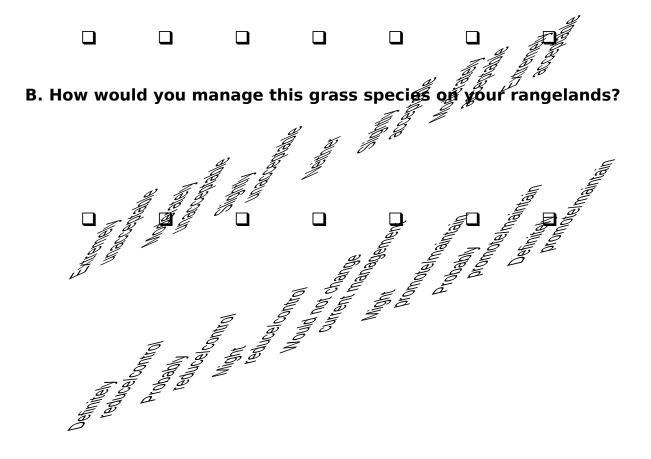


18. Description of Grass 4:

A new grass species is expanding onto your native rangelands. Based on current research and the best available information from other landowners, you know that once established this grass:

- Leads to a moderate increase (gain of 3-5 species) in the variety of grassland birds.
- Leads to a moderate increase (gain of 15%) in the amount of floral resources that provide pollen and nectar for pollinator species.

- **Moderately decreases (20% less)** water infiltration into the soil and the amount of water available to other plants.
- Provides **lower than average (25% less crude protein)** quality forage for livestock during the primary growing period of this species.
- Provides palatable forage for livestock only late in the grazing season (September, October, November).
- **Has no effect on** the diversity of other grasses.
- Produces a lower than average (25% less) yield in terms of lbs/acre.
- A. From your point of view, how acceptable or unacceptable is this species on your rangelands?



SECTION D: YOUR OPINIONS ON KENTUCKY BLUEGRASS/JUNE GRASS

Kentucky bluegrass (Poa pratensis L.) is most known as a lawn and turf grass. A variety of this cool-season, perennial grass grows in the grasslands and rangelands of North Dakota.

Kentucky bluegrass is sometimes called June grass because it matures early in the growing season and usually dries out and produces seed June.

We want to know your opinions about Kentucky bluegrass even if it does not currently grow on your land.

19. How familiar are you with Kentucky bluegrass?



Drawing of Kentucky bluegrass courtesy of USDA-NRCS PLANTS Database.

- Moderately familiar
 - Uvery familiar

Not familiarSlightly familiar

□ Extremely familiar

20. Do you currently have Kentucky bluegrass on your rangelands?

- 🗆 No
- Unsure
- 🛛 Yes
 - Of the rangelands you own and operate, what is your best estimate of the percentage of this land that has Kentucky bluegrass present?

_____%

- Of the rangelands you own and operate <u>that contain Kentucky</u> <u>bluegrass</u>, approximately how much of the plant community is bluegrass?
 - _____%

21. Please think about your history on your place. From your perspective, has the abundance of Kentucky bluegrass on your rangeland:

- Definitely decreased
- Probably decreased
- Remained about the same
- □ Probably increased

22. Based on your own preferences, would you say the abundance of bluegrass on your rangeland is:

- Much too low
- □ Too low
- □ About right
- □ Too high
- Much too high

Landowners and producers in North Dakota manage their land for a variety of uses. Some folks may like Kentucky bluegrass while others do not. We'd like your opinions about bluegrass even if you don't have any on your land.

23. Please indicate the degree to which you think the following statements about bluegrass are true or not.

Kentucky bluegrass... is a valuable source of forage for livestock in the spring and early summer \square is preferred by livestock over other grass species during its primary growing period..... decreases the amount of forage available for livestock over the entire growing season..... increases the number of wildlife species in rangelands..... reduces soil erosion..... increases soil quality..... increases the amount of water available in the soil..... outcompetes other grasses and forbs....... improves the natural beauty of rangeland landscapes decreases my ability to cope with drought..... reduces the number of pollinator species in rangelands.....

maintains its nutritional value once mature

(i.e., once it produces seed and dries out)......

makes rangelands less pristine

SECTION E: MANAGEMENT PERSPECTIVES

24. In general, which option below best describes your goal for Kentucky bluegrass on your rangelands?

□ My goal is to <u>increase</u> the abundance of bluegrass on my rangelands to _____ %.

□ My goal is to <u>maintain</u> the current abundance of bluegrass on my rangelands.

 \Box My goal is to <u>decrease</u> the abundance of bluegrass on my rangelands to _____ %.

□ I have <u>no goal</u> for the abundance of bluegrass on my rangelands.

25. **Overall, having Kentucky bluegrass on my rangelands** is (or would be): Moderately Moderately Extremely Extremely Slightly Neither Slightly Desirable Undesirable Threatening Encouraging Bad Good Worthless Valuable Detrimental Beneficial Acceptable Unacceptable

26. On my rangelands, I can effectively manage Kentucky bluegrass at the levels I desire.

- □ Strongly disagree
- Disagree
- □ Neither agree nor disagree
- □ Agree
- □ Strongly agree

We are also interested in what opinions you think other landowners and producers might have about Kentucky bluegrass. We don't expect that you know exactly what others are thinking but we'd like you to answer these questions based on your general impressions.

27	. Most landowners I know want to _ bluegrass on their rangelands.	the abundance of
	🖵 maintain	
	increase	
	decrease	
	lacksquare do nothing about the	
28	. Most landowners I know	control bluegrass on their
	rangelands.	
	🖵 never	
	rarely	
	sometimes	
	🖵 usually	
	always	
29		control bluegrass on
	my rangelands.	
	definitely think I should not	
	probably think I should not	
	do not care whether I	
	probably think I should	
	definitely think I should	
30		if I controlled for
	bluegrass on <u>my</u> rangelands.	
	strongly disapprove	
	□ disapprove	
	neither disapprove or approve	
	approve	
	strongly approve	

SECTION F: MANAGING KENTUCKY BLUEGRASS ON YOUR LAND

♦ Please SKIP to SECTION F if you do not have Kentucky bluegrass on your land.

31. Over the next 12 months, how likely or unlikely are you to use each practice specifically to manage Kentucky bluegrass on your rangelands?

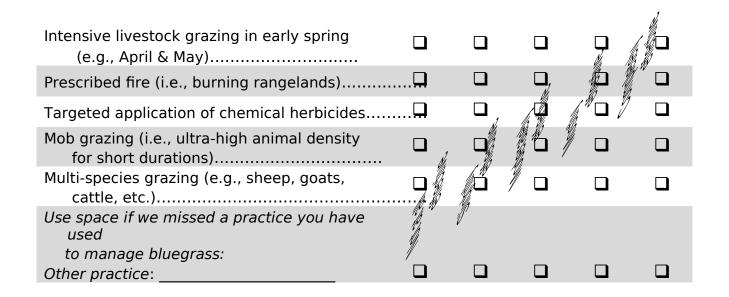
	Extremel y unlikely	Unlikely	Neither unlikely or likely	Likely	Extremel y likely
Intensive livestock grazing in early spring (e.g., April & May)					
Prescribed fire (i.e., burning rangelands)					
Targeted application of chemical herbicides					
Mob grazing (i.e., ultra-high animal density for short durations)					
Multi-species grazing (e.g., sheep, goats, cattle, etc.)					
Use space if we missed a practice you intend to use to manage bluegrass:					
Other practice:					

32. Please tell us whether you have used each of the following practices specifically to manage bluegrass on your rangelands recently and/or in the past.

To manage bluegrass, I have used: Intensive livestock grazing in early spring (e.g., April & May)	Never used	ONLY more than 2 years ago	DNLY in last 2 years	More than 2 years ago AND in last 2 years
	_	_	_	_
Prescribed fire (i.e., burning rangelands)				
Targeted application of chemical herbicides				
Mob grazing (i.e., ultra-high animal	_	_		
density for short durations)				

Multi-species grazing (e.g., sheep, goats, cattle, etc.)		
<i>Use space if we missed a practice you have used to manage bluegrass:</i>		
Other practice:		

33. How effective do you think each management practice is at controlling/reducing Kentucky bluegrass?



34.

Controlling/reducing Kentucky bluegrass on my

rangelands is:

	Extremely	Moderate	N Silohth	Neither	Sighth	Moderate	N Extre	in en
Expensive								Inexpensive
Undesirable								Desirable
Difficult								Easy
Effective								Ineffective
Possible								Impossible
Unnecessary								Necessary

Control	no	0518-XXXX,	Evn	data	12_28_21
CONTROL	110.	U_{J_10} , U_{J	EXP.	uale.	12-20-21

Infeasible				Feasible
Beneficial				Detrimental

SECTION G: A LITTLE MORE ABOUT YOU AND YOUR LAND

Your willingness to share some limited background information will help us appreciate the challenges of agricultural production and owning and managing rural land. It will help us accurately report this information to inform public policy and decision makers in North Dakota and the greater Northern Great Plains.

Your responses will be kept <u>confidential</u> and we will <u>never</u> release your name or personal information to any individual, business, or government agency.

35. About how many acres of rural land do you own, lease from others, and lease to others?

acres owned acres leased (rented) acres leased out (rented out)

36. Of the acres you own and operate, about how many acres are:

Rangeland: _____ acres

Planted pasture: ______ acres

Cropland: ______ acres

Woodland or Forest: ______acres

37. Of your rangeland acres, about how many do you use for:

Grazing: _____ acres

Hay production: _____ acres

38. What is your primary occupation? (If RETIRED, what <u>was</u> your primary occupation?)

a. Considering this occupation, are you currently:

- U Working full-time
- □ Working part-time
- □ Not currently working (unemployed or laid-off)
- □ Retired and no longer working
- □ Retired and working part-time in this occupation
- □ Retired and working part-time in a different occupation

- b. Is this occupation part of, or related to, the farming/ranching industry? □ Yes

39.

grazing or livestock association?

Are you a member of a

In what year were you born? _ _ _ year 40.

□ Male □ Female 41. Are you:

42. What is the highest level of formal education you have completed?

- □ Some high school or less
- □ High school diploma or equivalent
- □ Some college
- □ Trade school, formal apprenticeship, or 2-year degree
- Completed a 4-year college degree
- □ Some graduate or professional school
- Completed graduate or professional school

43. What is your race? Please indicate the one or more options that apply.

- American Indian or Alaska Native
- □ Asian
- Black or African American
- □ Hispanic or Latino
- □ Native Hawaiian or other Pacific Islander
- □ White

Some other race and/or ethnicity (*Please specify*):

In a typical year, approximately what percentage of your annual 44. household income comes from activities related to your land?

% (Agricultural production)

45. Please select the category that best describes your average net annual household income.

- Less than \$50,000
- □ \$50,001- \$75,000
- □ \$75,001- \$100,000
- □ \$100,001- \$500,000
- □ More than \$500,000

Is there anything else you would like to share with us?

We sincerely appreciate your time and thoughtful contributions to this study. Please return your completed questionnaire in the postage-paid envelope as soon as possible.

Thank You!

ID#