

Farm/ Puzzles

The science of spring burning

Why prescribed fire remains essential to managing land and livestock in the Flint Hills

If you've driven past Exit 313 on Interstate 70 during the spring, you've probably witnessed the grey smoke rising and low flames moving across the Flint Hills. Whereas smoke can be cause for concern, these fires are planned, managed and an important part of how the land and cattle are cared for by producers.

"Where I grew up, we dealt with more wildfires. Coming to Kansas, it's been an adjustment to see how comfortable producers are with fire," said Logan Thompson, director of Rannells Ranch and assistant professor of animal science.

Prescribed burning is common across Kansas, but it is especially important in the Flint Hills, where tallgrass prairie depends on fire to stay healthy. At Rannells Ranch, burning is used as a management tool to support both the land and the cattle grazing it.

Before a burn ever happens, there is a lot of preparation involved. Weather conditions, fuel levels, timing, and available help all factor into whether a burn can take place. Sometimes, that decision is not made until the last minute.

"It can come down to the minute before you decide to start lighting grass," said Thompson.

Burning also requires coordination. Rannells Ranch works with Konza Prairie Biological Station crews to burn each spring. Across the prairie, ranchers work together with neighbors to burn pastures safely and efficiently, especially when managing larger areas of land. It becomes a shared effort, with crews relying on each other for labor, equipment and experience.

That coordination also reflects a broader connection. The outcomes of prescribed burning, grassland health and cattle performance extend beyond the ranch and into the food system.

Even with that planning, prescribed burning is becoming more visible to the public. Smoke, safety concerns and increased development in the region all influence how people view the practice. That makes it important to explain why burning happens.

"This is a safe and natural process," Thompson said. "Grasslands and fire go hand in hand."

One of the main reasons for burning is to improve the quality of grass for cattle. Fire removes old plant material and

allows new growth to come in. The new grass is higher in protein and easier for cattle to graze, which can lead to better animal performance during the grazing season.

"We burn in this region quite a bit because it's a tool to manage the landscape and improve animal gains," Thompson said.

While that may seem like a benefit only to the ranch, it connects directly to consumers. The way cattle are raised and how pastures are managed influences the beef people see at the grocery store or order at a restaurant.

Fire is also important for maintaining the grassland itself. Without it, woody species like eastern red cedar begin to spread, taking over areas that would normally grow grass. Over time, those trees reduce the amount of available forage and limit how many cattle a pasture can support.

"Cattle are grazers. They're not browsers," Thompson said. "When those plant species take hold, our carrying capacity decreases."

Another goal of prescribed burning is to influence grazing distribution. Many ranchers aim for a fairly even burn across an entire pasture so cattle are more likely to graze evenly. However, grazing patterns are also affected by factors like water availability and plant diversity. Different burning strategies, such as patch-burn grazing, can be used depending on management goals.

"If we don't get a good burn in part of a pasture, that impacts grazing distribution and overall productivity," Thompson said.

At the same time, prescribed burning is becoming more complex. Changes in weather patterns and burn timing can influence how plant communities respond over time, which adds another layer to management decisions.

"When you change your burn timing, you're going to see differences in plant community dynamics," Thompson said.

Because of that, public understanding plays a role in the future of prescribed fire. Support comes not only from ranchers, but also from the communities connected to these landscapes.

"We can't remove fire from these landscapes and expect them to function the same," Thompson said. "It's tied to everything we do; from the land itself to the cattle we're trying to produce."

Prescribed burning is one part of a larger system linking land management, beef production and the people who rely on both.



UNIVERSAL Sudoku Puzzle

Complete the grid so that every row, column and 3x3 box contains every digit from 1 to 9 inclusively.

	9			5	8			1
		7		6	2	8		
			1					6
	5			2				9
		4	5		3	6		
6				1				8
	1				4			
		9	2	3		4		
2			6	9				3

Previous Puzzle Solution

9	4	2	1	8	3	7	6	5
6	5	7	9	4	2	3	1	8
1	3	8	5	6	7	9	2	4
3	6	4	8	7	9	2	5	1
5	7	9	6	2	1	4	8	3
8	2	1	3	5	4	6	7	9
7	1	3	2	9	5	8	4	6
4	8	5	7	3	6	1	9	2
2	9	6	4	1	8	5	3	7

DIFFICULTY RATING: ★★☆☆☆

Universal Crossword

Edited by David Steinberg May 20, 2026

- ACROSS**
- 1 Things to swing
 - 5 Chooses
 - 9 Float through the air
 - 13 The Hawkeye State
 - 14 "Been ____, done that"
 - 15 The "E" in HOMES
 - 16 WordPress creation
 - 17 Shining example
 - 18 Nee
 - 19 1989 NHL champs who hail from Alberta
 - 22 Prez on a five
 - 24 See 30-Down
 - 25 Use the delete key
 - 26 2023 NBA champs who hail from Colorado
 - 31 Loathes
 - 32 Quick glance
 - 33 Bookshelf buildup
 - 34 Yellowstone grazers
 - 36 Some
 - 40 Window part
 - 41 Tapenade ingredient
 - 42 2021 MLB champs who hail from Georgia
 - 46 "Kate & ____" (1980s sitcom)
 - 48 Palindromic sib
 - 49 Winter hrs. in Pittsburgh
 - 50 1996 NFL champs who hail from Texas
 - 55 Old-fashioned showdown
 - 56 Clothing tag
 - 57 Basic particle
 - 60 Outer limit
 - 61 Like a gymnast
 - 62 Red, as a steak
 - 63 Monopoly acquisition
 - 64 Spa treatment
 - 65 Used colored pencils
- DOWN**
- 1 Seafood restaurant garment
 - 2 Early ISP
 - 3 Unsolicited opinion
 - 4 Epic tale
 - 5 "Aw, shoot!"
 - 6 __ review
 - 7 Something a busboy holds
 - 8 Kind of help?
 - 9 Site graphics
 - 10 Bakery lures
 - 11 "Little ____ Everywhere" (Celeste Ng novel)
 - 12 Nerve-racking
 - 14 Big cat that can weigh 660 pounds
 - 20 Soapmaking substances
 - 21 Vegetable in potato soup
 - 22 Condition that affects focusing: Abbr.
 - 23 Ken, to Barbie
 - 27 Pet doc
 - 28 Surprise victory
 - 29 Logical start?
 - 30 With 24-Across, millennial
 - 34 Barnyard bleat
 - 35 Traveler's lodging
 - 36 Chicken ____ king
 - 37 Like a rave review
 - 38 12/24 and 12/31
 - 39 Left, on a map
 - 40 "Not guilty," for one
 - 41 Ish
 - 42 Make a claim
 - 43 Worked the soil
 - 44 Also
 - 45 Book in many a hotel room
 - 46 Threw into the mix
 - 47 Summa cum ____
 - 51 Hockey shot sound
 - 52 Pet parakeet's home
 - 53 Off-Broadway award
 - 54 Garden party site
 - 58 Mined rock
 - 59 Kitten's cry

PREVIOUS PUZZLE ANSWER

A	L	A	N		A	C	A	I		A	S	M	R		
R	A	N	E	R	R	A	N	D	S		O	T	O	E	
C	O	N	C	E	R	T	T	E	E		L	A	R	P	
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O	T	S		R	I	R	I		S	T	U	A	R	T	
C	H	E	X		A	S	O	F		T	I	T	L	E	
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K-STATE Research and Extension

KANSAS CROP PROGRESS AND CONDITION

For the week ending May 10, there were 5.9 days suitable for fieldwork, according to the USDA's National Agricultural Statistics Service. Topsoil moisture supplies rated 27% very short, 38% short, 34% adequate and 1% surplus. Subsoil moisture supplies rated 27% very short, 37% short, 35% adequate and 1% surplus.

Field Crops Report: Winter wheat condition rated 21% very poor, 30% poor, 32% fair, 16% good and 1% excellent. Winter wheat headed was 86%, ahead of 67% last year and well ahead of 49% for the five-year average.

Corn planted was 52%, behind 59%

last year and near 55% average. Emerged was 32%, behind 39% last year, but near 30% average.

Soybeans planted was 36%, near 33% last year and ahead of 30% average. Emerged was 11%, near 9% last year and 8% average.

Sorghum planted was 6%, near 5% last year and 4% average.

Cotton planted was 12%, ahead of 4% last year, but near 14% average

Sunflowers planted was 1%, equal to average.

Pasture and Range Report: Pasture and range conditions rated 12% very poor, 18% poor, 31% fair, 34% good and 5% excellent.

• IBRC participates

Con't from Page 1

unique packaging designed specifically for hunters. Since receiving the award, Wonser has been interviewing manufacturers and working toward finalizing a production partnership.

"This \$5,000 has helped us take something we saw as a gap in the industry and start turning it into a real product," Wonser said.

Haynes' project focuses on developing an adjustable framing jig that assists with joist hanger placement and construction alignment for multiple lumber sizes. Grant funding has helped accelerate prototype development, tooling purchases and plans for initial product testing and commercialization through home and garden shows.

"The ACCEL grant award has allowed me to buy materials and tooling to advance more quickly through R&D of my device, and to plan for hitting the market next year," Haynes said.

Both projects remain in active development and are expected to continue prototype refinement, market testing, and early commercialization efforts through 2026.

Haynes is using the prototyping ca-

pabilities of the maker space at Life Skills Academy (LSA), powered by IBRC, to develop and refine his working model. The LSA maker space has tools that can help both of these entrepreneurs as they move through the development, production and marketing phases of their products.

Groover Labs, based in Wichita, serves as a statewide innovation hub supporting startups, inventors, and entrepreneurs across Kansas through programming, mentorship, and collaborative partnerships.

For more information about IBRC and entrepreneurship programs in Southeast Kansas, contact:

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There's No I in Team by Noelle Grisley

1	2	3	4		5	6	7	8		9	10	11	12	
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